INTERNAL AUDIT INDEPENDENCE AND INTERNAL AUDIT EFFECTIVENESS IN PUBLIC TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING INSTITUTIONS IN WESTERN REGION, KENYA.

ALUVALA BERYL LIHAVI

THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTERS IN BUSINESS ADMINISTRATION (ACCOUNTING) OF MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY

AUGUST, 2023

DECLARATION

This thesis 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: _____________________________

ALUVALA BERYL LIHAVI

MBA/G/01-70021/2020

CERTIFICATTION

The undersigned certify that they have read and hereby recommend for acceptance of Masinde Muliro University of Science and Technology of a thesis entitled ***"Internal Audit Independence and Internal Audit Effectiveness in Public Technical, Vocational Education and Training Institutions in Western region, Kenya."***

Signature_____________________________ Date: _____________________________

Prof. Charles Y. Tibbs
School of Business and Economics
Masinde Muliro University of Science and Technology

Signature _____________________________ Date: _____________________________
Dr. Kiongera Fredrick
School of Business and Economics
Masinde Muliro University of Science and Technology

DEDICATION

I dedicate this thesis to my mother, Dorice Aluvala for her constant encouragement and financial support throughout the program.

ACKNOWLEDGEMENT

I express my gratitude to God for blessing me with the chance to do really well in the program. My gratitude extends to Professor Charles Y. Tibbs and Dr. Fredrick Kiongera for the insightful direction and comments they provided on my thesis. Both of them have been a tremendous help. The unflinching support of my fellow students is much valued, as is the great assistance provided by the library staff at Masinde Muliro University of Science and Technology, who have been an invaluable resource in my academic pursuits. In addition, I would like to express my appreciation to the Sigalagala National Polytechnic fraternity for the time and support they provided me while I was working on my thesis.

ABSTRACT

Effectiveness of internal auditing, particularly when it is tightly aligned with risk management frameworks, compliance standards and strengthened internal controls, garners a significant amount of attention all around the world, particularly from governing authorities. This focus is a direct result of the one-of-a-kind operational function that governmental divisions play in the stimulation of economic activity. Independence for internal audit is something that cannot be compromised on if optimum results are to be achieved. As a result, the study aimed at establishing the effect of internal audit independence on internal audit effectiveness of Public Technical and Vocational Education and Training (TVET) Institutions in Western, Kenya. The following are the specific objectives for the research: to establish the effect of scope of work of internal auditors on internal audit effectiveness in Public TVET Institutions in Western region; to determine the effect of access to audit evidence on internal audit effectiveness in Public TVET Institutions in Western; to establish the effect of the level of reporting of internal auditors on internal audit effectiveness in Public TVET Institutions in Western region; to examine the effect of provision of non-audit services on internal audit effectiveness in Public TVET Institutions in Western region. The research was founded on three theoretical pillars: the theory of agency, institutional theory, and inspired confidence theory. Agency theory was primarily responsible for shaping the research outlines. A causal research design was employed and it focused on an intended 116-member sample from Public TVET Institutions in western Kenya. This sample included senior management, internal auditors and audit committee organ. Stratified and simple random sampling approaches were put to use to select 89 individuals to partake in the study. The primary data gathering consisted of deploying structured questionnaires using a drop-and-collect approach. Both the reliability of the tool as computed by Cronbach's alpha and its validity as determined by content validity were subjected to investigation. Statistical approaches such as descriptive and inferential were utilized to determine relationship between dependent and independent variables. In addition to this, regression analysis was used to ascertain the effect of internal audit independence on internal audit effectiveness. Scope of audit work ($\rho=0.012<.05$), access to audit evidence ($\rho=0.022 < .05$), level of reporting ($\rho=0.020 < .05$) and provision of non-audit services ($\rho=0.002< .05$) displayed statistically significant, positive effect on internal audit effectiveness, with p-values that were lower than 0.05. The study supports the idea that public TVET institutions in Kenya should set up internal audit functions that are completely independent of management and should have unrestricted access to evidence. In order to build up the effectiveness of their audits, internal auditors need to have freedom to define their scope of the work, be required to communicate their findings directly to the audit committee, and be prohibited from engaging in activities that are not directly related to their function.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ABBREVIATIONS AND ACRONYMS

ACCA	Association of Chartered Certified Accountants
CAE	Chief Audit Executives
CEO	Chief Executive Officer
CIA	Chief Internal Auditor

FRC	Financial Reporting Council
IAC	Internal Audit Charter
IIA	Institute of Internal Auditors
IPPF	International Professional Practices Framework
ISA	International Standards of Auditing
ISPPIA	International Standards for the Professional Practice of Internal Auditing.
SIRO	Senior Information Risk Owner
SPSS	Statistical Package for Social Sciences
TVETA	Technical and Vocational Education and Training Authority
TVET	Technical and Vocational Education and Training

OPERATIONAL DEFINITION OF TERMS

Internal Audit: It is a self-sufficient and impartial assurance endeavor that aims to assist organizations in realizing their goals by analyzing and optimizing the effectiveness of risk management, internal controls, and governance procedures.

Internal Audit Independence: This relates to the internal auditor's ability to tackle their responsibilities without external influence, including but not limited to the auditor's access to audit evidence, degree of reporting, and scope of work, as well as the supply of non-audit services.

Internal Audit Effectiveness: The extent to which the role of internal audit satisfies its presumptive aim or the anticipated result in terms of risk control, the development of internal controls, and adherence to regulatory standards.

Scope of work: The amount of time, extent of audit procedures and inclusion of significant findings required by an auditor to conduct an audit exercise.

Access to audit evidence: The extent to which auditors collect documents and have accessibility to top level management and departmental personnel in the course of arriving at the findings upon which the auditor's judgment is based.

Level of reporting: The extent to which the internal auditor reports to the board and the senior level management functionally and administratively respectively.

Provision of non-audit service: The degree to which auditors offer specialized assistance to their companies that are not related to an audit or examination of the institution's financial statements. Examples of these types of services include advisory services, tax consulting services, and the execution of internal controls. These services may be provided as a result of the length of time an auditor has been employed by the firm.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Current international accounting frauds in public organizations, the economic distress, elevating firm intricacies, recognition of and need for accountability and openness have all contributed to a growing curiosity in the effectiveness of internal audits and the aspects that impact them, such as the autonomy of internal audits (Salehi, 2016). Other factors that have contributed to this increased interest include the need for accountability and openness. Internal auditing is described as a process that is autonomous, objective, and advisory in nature, and it is developed so as to provide value and enhance the operations of a company (IIA, 2013). Internal auditing is beneficial to a company because it provides a structured and disciplined technique for evaluating and developing the efficacy of risk management, control, and governance procedures. This, in turn, helps the business accomplish its goals.

According to ISPPIA (2017), for an in-house auditing operation to be considered successful, it is required that the procedure be autonomous of the organization's stakeholders. Autonomy in internal auditing is defined by the standard either as a situation in which challenges to auditors' impartiality are properly avoided or as a state in which there are no conditions that might imperil the potentiality of internal auditors to discharge their assignments in a fair and unbiased way (Chepkorir, 2010). Autonomy may also be defined as the avoidance of circumstances that have the potential to cloud one's objectivity or open the door to the introduction of personal bias into sensitive decision-making. According to IIA (2013), auditor independence refers to the lack of influence or control on the auditor's behavior, actions, and opinions in a given situation. One of the elements that determine the degree to which internal auditors may be considered independent is the scope of audit work. As staff members of a company who are also tasked with the duty to perform the function of an internal guarantee provider, internal auditors have a status that places them in an exceptional position. Because of this, it is vital for internal auditors to evaluate and monitor numerous governance choices made by leadership, as well as to inform management on the sufficiency and efficacy of internal controls (Mihret et al., 2010; The Public Service Commission of Kenya, 2015). When internal auditors are able to decide on the nature of auditing processes that will be utilized during the auditing procedure, the audit time that will be covered during the audit, and when they are able to incorporate critical audit results on audit reports without being affected by management; thus, internal auditors have unlimited scope.

Accessibility to audit evidence is another important factor that has a responsibility in evaluating the independence of auditors. According to Arena and Loebbecke (2015), the role of auditing should be granted the right to scrutiny of accounts, financial records, knowledge, and clarifications anytime to provide adequate autonomy and increased efficacy. This is necessary to verify that the audit function is performing its intended purpose. According to Delai & Omri (2016), internal auditors are considered autonomous in their functionality when they are granted unrestricted access to the documents that are necessary for auditing, access to top-level management, and access to staff from other departments for the objective of obtaining proof of auditing. Additionally, the level of reporting done by internal auditors has impact on the independence of the auditors. ISPPIA 1110 mandates that the chief internal auditing officer must report to a level within the company that paves the way for the internal audit unit to fulfill its duties and satisfy its obligations. As illustrated by Public Financial Management Act of 2012, an auditor's independence may be successfully realized when the chief audit executive reports operationally to the board and officially to the senior-level management. It is essential to ensure responsibility to the auditing board and uphold a high level of professionalism while interacting with management to achieve this objective.

As noted by Chartered Accountants Worldwide (2018), to uphold a high degree of autonomy among auditors, they should not provide services that are not related to their functional role. It has been suggested that the economic dependency that results from the supply of non-audit functions and individual ties that are developed via workers are two factors that lead to the loss of autonomy of internal auditors. Internal auditors have the responsibility to provide recommendations about the establishment of internal operations and controls. Conversely, some companies provide the internal auditors with the responsibility of actually carrying out the policies and procedures that they suggest in their reports (Reiner & Hoos, 2023; Albaqali & Kukreja, 2017). Research that emerged from the topic of auditor autonomy found that auditors were found to have compromised their autonomy as a result of extended audit tenures as well as a lack of professional dedication and expertise in their job. Independence in internal auditing is possibly one of those principles that functions better in theory than in reality; it offers a problem in that it expects the internal auditor to be both a monitor and an advisor at the same time. According to Yee et al. (2008) as cited by Nyaga et al. (2018), an internal audit function that lacks autonomy suffers a loss of credibility and is unable to provide management at the organization with a new point of view.

In recent years, the effectiveness of internal audits has garnered increasing amount of attention, and has been the subject of serious consideration in a number of academic research. As illustrated by Nyaga et al. (2018), the accomplishment of internal auditing objectives with respect to the number of risks determined, the number of internal control flaws discovered, and the number of internal controls, risk management, and governance measures produced was considered to be successful internal auditing. Internal audit effectiveness is defined by IIA (2010) as the measure (including quality) to which set internal audit goals are fulfilled. It is possible to ascertain the effectiveness of the internal auditors by determining whether or not they are able to reassure management that the procedures and controls that have been implemented are sufficient. It is the role of the internal auditors to verify that the company's regulations and procedures are being followed correctly. According to Affum (2011), the effectiveness of an internal auditor is attributable to the completion of scheduled audits, the timely delivery of audit reports, and the execution of audit follow-up procedures to ensure that all the audit results are executed. Thus, as a way to guarantee that their work is successful, internal auditors should ensure that they adhere to the norms outlined in the international norms for ISPPIA published by the IIA as well as the ISA.

Meckling and Jensen first presented their Agency theory in 1976, and it served as the fundamental theoretical framework for this investigation. Prior to this point, companies were owned and governed by their owners, and as a result, there was a natural tendency toward self-accountability. However, as firms continue to expand in a setting that is always dynamic, there is a need to distinguish shareholders from management (Zogning, 2017). This is what resulted to the development of the agency concept, which ascertains that business owners (principals) often delegate on a daily basis the management of their companies to professional managers (agents) in order to free themselves from the responsibility. This has resulted in the need for company owners to seek out an intermediary whose job it is to oversee the activities conducted by management that has limited to no interest in the companies and ensure excellent performance (Kimotho, 2014). This is due to the fact that management has little to no interest in the companies in question. This has, in all likelihood, resulted in the establishment of an internal audit unit, which may be defined as a review of accounting records carried out with the intention of determining whether or not they accurately and totally represent the operations to which they pertain. In addition to this, it has resulted in a conflict of agency between the owners and the management. As a result of this, it is to be anticipated of internal auditors that they would ethically promote the organization's best interests. Based on the parallel, one would anticipate auditors to carry out their tasks autonomously and in conjunction with management so that they may accurately represent the interests of the owners (ACCA, 2015).

The goal of this research was to explore evidence on the effect of independence of internal auditors on their effectiveness in the public TVET Institutions in Western, Kenya. In recent years, some businesses have voiced significant concerns over the autonomy of internal auditing in an effort to boost the effectiveness of internal auditing. Mugwe (2012) indicates that previous investigation on the topic of the effectiveness of internal audits in businesses reveals very clearly that the autonomy of internal audits is truly a subject that calls for more investigation. As described by Dellai and Omri (2016), the rate of implementation of internal auditing in growing nations has been sluggish and, in some instances, non-existent. This is despite the fact that internal auditing is currently performing its appropriate function in advanced nations. The Internal Audit Sector is working beneath its capability in most African nations. According to the IIA (2015), this is because of issues that exist in most parts of the continent. There is constrained awareness of the autonomous nature of the internal audit function; there is inadequate comprehension of the impact that it makes to good governance; the internal audit unit is unable to fully utilize its value as a consequence of constraints on its breadth, profile, or power, in addition to resource limitations in the regions where it exists; there is restricted access to records; there is a constrained access to training and other assistance for internal auditors, and controls and oversight are inadequate. These are some of the factors that contribute to the low capacity.

There is a widespread comprehension of the function of internal auditing in Malawi, and the need for internal auditing services is growing. This can be seen through the existence of auditing companies that provide either co-sourced or outsourced internal auditing services. The government has a high corrupt practice index due to the fact that growth agencies and other national entities have not yet established policies to ensure the autonomy of internal auditors despite this. The 'cash gate' controversy in Malawi, which culminated in the cessation of budgetary assistance from supporters for the nation as a consequence of fraud and misuse of finances by top-level government employees for which the audited accounts of Malawian government from 2009 to 2014 failed to account for, has not only brought a lot of misunderstandings and inquiries about the duties of the auditors in terms of tying up loose ends, but it has also brought a lot of uncertainty from the public about the autonomy (Strasser, 2016). Numerous studies in Kenya have concentrated their attention on the topic of internal auditors' ability to function effectively while maintaining their autonomy. As ascertained by the report that was compiled by the Auditor General for the 2018-2019 academic year for the Technical University of Mombasa, the institution was unable to account for twenty-five million Kenya shillings that were related to the library investigative system as well as the project management fees that were advanced to the members of staff. The Technical University of Kenya found itself in the public eye in 2021 because it had made unauthorized payments to employees who were off the clock totaling seventeen million Kenyan shillings. External auditors were the ones who discovered these business problems, which casts question on the effectiveness of the internal audit role performed by TVET Institutions. Nyaga et al. (2018) investigated the connection between the autonomy of the internal auditing segment and the quality of that department's work in the County government of Kirinyaga in Kenya. Findings of the regression assessment showed that autonomy of internal auditors had a statistically significant influence on the effectiveness of the internal auditors. Based on the findings of the study, enhanced independence of the internal audit segment would favorably affect the effectiveness of internal auditors. This improved independence would be the consequence of internal auditors having unfettered access to audit-evidence, an unrestricted scope of audit work, accurate reporting, and not doing non-audit activities. Prior studies were on a directorate inside a decentralized unit of administration, the Kirinyaga county government; the present study, on the other hand, concentrates on public TVET Institutions in the Western area of Kenya.

1.2 Statement of the Research Problem

As reported by the National Institute of Public Administration (NIPA, 2020), the development of educational institutions in general and universities and colleges specifically in Kenya over the course of the last several decades has not been accompanied by a comparable growth in delivery of internal audit functions. This is taking place at a time when the position of the internal auditor is transitioning from its conventional function of evaluating and providing feedback on internal controls to the more expansive and ever-expanding roles of appraisal, review, management advising, and risk management. Although it is clear that there has been a substantial growth in the number of educational institutions, this cannot be stated about the effectiveness of their business practices, activities, or services, as determined by the findings of internal audit assurance reports (Owalla et al., 2014). According to Omari (2015), the effectiveness of audit assurance has decreased, and this may be linked to a variety of causes, the most prominent of which is the unresolved problem of auditors' independence.

According to Owalla et al. (2014), audit ineffectiveness is a problem for public educational institutions in Kenya. This is because most of the internal auditors working in these institutions are closely tied to the management, which has a negative effect on their capacity to put their audit recommendations into action. The researcher came to the conclusion that the internal audit operations in these public learning institutions did not provide value to the institutions themselves. This was due to the fact that all of the auditors who were questioned reported a lack of independence due to the fact that their primary connection to the governing bodies was the CEO. According to the findings of a study that was carried out by Kimotho (2014) on the aspects that impact the autonomy of the internal auditors at the Technical University of Mombasa, elements such as the system of reporting, the restriction of scope, and the conventional function of internal auditors, all had a negative impact on the autonomy of the internal auditors at the polytechnic. According to Salihu (2015), the absence of autonomy for auditors in Nigeria's state-owned postsecondary educational institutions causes their internal audit functions to be much less successful than those in federally controlled tertiary educational systems.

Findings of research that was carried out by Omari (2015) on the subject of the variables that influence the independence of auditors at universities located in the Meru Region revealed that the reporting system of auditors and the supply of non-audit services had very little importance on the autonomy of internal auditors. Previous research on auditing effectiveness has been performed, but past studies on the effectiveness of internal auditing has received very little attention (Dellai & Omri, 2016). According to Arena & Azzone (2009), the success of audits relies on the auditor's level of independence. This is because the value of auditing is strongly dependent on how stakeholders perceive the auditor's level of independence (Erasmus & Coetzee, 2018). As a result, one of the key concerns that continues to exist is on the question of whether or not sense of dependency of the internal auditors at public TVET institutions might be responsible for the ineffectiveness of the internal audits.

The empirical data shows that dependency in internal auditing at such organizations is most likely to have a detrimental effect on the effectiveness of the internal auditors if it is allowed to remain unleveraged. Therefore, the purpose of this study was to serve as an appropriate solution for a variety of gaps in the independence and effectiveness of internal audits. Kimotho (2014) suggested that more research on the autonomy of the internal audit function should be carried out at the Technical University of Mombasa in addition to the other higher public learning institutions in Kenya. In a similar vein, Delai and Omri (2016) suggested that further studies should also be performed on the effectiveness of internal audits in addition to the effectiveness of external audits. In light of this, the study goal was to investigate the effect that internal audit independence has on the effectiveness of the internal audit function in public TVET institutions located in the Western region of Kenya.

1.3 Research Objectives

The objectives of the research were split into two categories as follows:

1.3.1 General Objectives

To establish the effect of internal audit independence on internal audit effectiveness of Public TVET Institutions in Western region, Kenya.

1.3.2 Specific Objectives

i)To establish the effect of scope of work of internal auditors on internal audit effectiveness in Public TVET Institutions in Western region.

ii)To determine the effect of access to audit evidence on internal audit effectiveness in Public TVET Institutions in Western region.

iii) To establish the effect of the level of reporting of internal auditors on internal audit effectiveness in Public TVET Institutions in Western region.

iv) To examine the effect of provision of non-audit services on internal audit effectiveness in Public TVET Institutions in Western region.

1.4 Research Hypotheses

The research was standardized by the following null hypotheses:

$\boldsymbol{H_{O1}}$: Scope of work of internal auditors has no significant effect on internal audit effectiveness in Public TVET Institutions in Western region.

***H_{O2}*:** Access to audit evidence has no significant effect on internal audit effectiveness in Public TVET Institutions in Western region.

***H_{O3}*:** Level of reporting of internal auditors has no significant effect on internal audit effectiveness in Public TVET Institutions in Western region.

***H_{O4}*:** Provision of non-audit services has no significant effect on internal audit effectiveness in Public TVET Institutions in Western region.

1.5 Research Significance

The purpose of the study was to acquire information for public TVET institutions about the connection between the independence of internal auditors and the effectiveness of internal audit function. This study also sought to assist policymakers in making decisions that would promote the independence of internal auditing, which would ultimately result in an improvement in the effectiveness of internal audits in Public TVET Institutions in the Western region of Kenya. This investigation was an important addition, since it provided recent empirical data on the effectiveness of internal audits from the point of view of Kenya. One of the results that was expected to occur was an expansion of researchers' and academics' general understanding of the interconnections that exist between various factors. This study has the potential to act as an important point of reference for further research in the field of literature. As a result, this study may provide significant help to many academicians and researchers.

The findings may also be of use to the Institute of Internal Auditors, which would benefit from the provision of new information to its members about the independence of internal audits and the influence that such independence has on the effectiveness of auditors in firms. The basis that was provided by this research establishes a platform for additional inquiry into the effectiveness of internal audits, taking into consideration a wider range of parameters than auditor independence.

1.6 Scope of the Study

The purpose of this research was to establish the effect that internal audit independence has on internal audit effectiveness in Public TVET Institutions located in the Western region of Kenya. At the time of the study there were fourteen Public TVET Institutions that were registered and licensed in the western region. It was estimated that the duration of the research would be between December 2022 and March 2023. Scope of work, access to audit evidence, level of reporting and provision of non-audit services are the four research variables that were split down into their respective categories after being analyzed. The research spanned four years, from 2019 to 2022, due to the fact that the majority of these TVETs started implementing their internal audit functions within that time frame. The research targeted internal auditors, senior management and members of audit committees. The research relied on primary data, which was collected via the use of questionnaires with specific formats.

1.7 Limitation of the Study

Throughout the course of this research, there were a number of restrictions that were expected. To begin, there were obstacles in the way of getting data from members of the audit committee and the senior management in the Public TVET Institutions in the Western area of Kenya. Some of these individuals either had too full of a schedule to take part in the research or just decided not to complete the questionnaires. As a result, the researcher did a follow-up after employing the drop-and-select approach in order to allow respondents plenty of time to complete the questionnaire at their own pace and in the manner that was most comfortable for them. Secondly, there was a degree of opposition from some of the participants, and the primary reason for this was that they were wary about the intention of the research. An introductory letter from the institution as well as a research license from NACOSTI guaranteed the participants that they would remain anonymous and that the results would only be utilized for academic reasons. Even though participants were provided assurances, the researcher still had optimism that they would provide honest replies. The correctness of the findings was contingent on the honesty of the respondents.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

It was essential to conduct a literature review to facilitate a more extensive comprehension of the variables under study. In this section, a theoretical and empirical overview of the relevant literature on the independence of internal audit and internal audit effectiveness was presented. Following this, the chapter delved into theoretical foundations that informed the research before moving on to an empirical evaluation of the relevant literature. The empirical review was carried out with a focus on the primary connections between the variables. As a result of this, a number of research gaps along contextual, conceptual, and methodological lines were revealed.

2.1 Theoretical Framework

This section provides an analysis of ideas that constitute the foundation for the hypothesized link between independence of internal audit and internal audit effectiveness. The three theories are the theory of agency, Institutional theory and theory of inspired confidence.

2.1.1 Agency Theory

According to Omid and Davood (2021), this theory was first put forward by Meckling and Jensen in the year 1976. Meckling proposed that when ownership and control are kept separate, it results in conflicts of interest, which in turn expedite increased agency costs. The concept also presupposes the presence of a two-party interaction inside a firm, with capital owners or shareholders serving as the founders and the leaders of the company acting in the capacity of stewards (Yalew, 2015; Maribe, 2010). The theory proposes that the managers, who are the agents, are in possession of more and better knowledge about the success and worth of a firm than the shareholders, who are the less knowledgeable parties in the interaction. This is because the shareholders are less conversant with the productivity and value of the firm. This kind of circumstance often results in a conflict of interest between the shareholders and the company management. According to the agency model, shareholders possess inadequate rationales to trust their workers because of the likelihood of knowledge imbalance and self-interest in a firm. Therefore, shareholders utilize internal auditing to address their issues and to align the objectives of their workers as agents with their own (Nyaga et al., 2018). According to The Institute of Chartered Accountants (2012), people have the expectation that internal auditing would limit the opportunities for data disparity and opportunistic behavior on the part of workers acting as agents.

Endaya and Hanefah (2013) state that internal auditing is a tool that can be utilized to reduce the number of issues that an agency is facing for the good of the stakeholders of the company. A company's overall performance may benefit from having an effective internal audit function, and vice versa. Because of this, the focus of the theory is on finding solutions to issues that may emerge in agency associations or the interactions between leaders and the agents that work for them. This position, in which owners lack reasons for confidence in their agents due to knowledge asymmetry and conflict of interest, is essential for comprehending the need for internal audit as an alternative to the agency issue in businesses (ACCA, 2015).

Given that they are trusted with the resources of public TVET Institutions and the internal control systems to preserve, internal auditors need to be given the utmost amount of independence possible to guarantee that they are successful in their job. This is the relevance that the theory has for the setting of the present research. According to this theory, the task of exercising control is placed in the hands of the board of directors and the management team. The board of directors, who only get together a few times a year, are ultimately responsible for appointing management as their agents to govern the firm, with the Chief Executive Officer serving as the firm’s leader. Amid the oversight of the audit committee, the independent internal auditors offer the board of directors with confidence about the good performance of management. Within the confines of this discussion, the concept of agency serves as the foundation for an explanation of the autonomous role and obligations that are affiliated with the internal audit function. However, the arrangement in which internal auditors operate under other officers of these institutions, whom they are supposed to hold accountable, provides these top managers with the chance to openly abuse the resources of the institutions for their personal gain (Huong, Minh, and Dao, 2023). In this view, the independence of internal auditors is of the utmost importance in order to preserve the resources that have been committed to the TVET Institutions for the benefit of the stakeholders.

2.1.2 Institutional Theory

According to the research of Durand (2019), Meyer and Rowan came up with the idea for the institutional theory in 1977. This theory describes how institutional constraints may cause changes in corporate structures and practices by acting as a driving force behind such shifts. Institutional theory explains how corporate strategies and frameworks are established as a result of the normative forces exerted by both internal and external sources such as policies (Mihret et al., 2010). It also describes how these pressures may cause change in an organization. According to this theory, the environment in which a company functions has a major role to play in embracing and executing practices and systems inside the structure that encourage the technical elements of the company. This idea was developed to explain why some companies are more technically advanced than others. An establishment is said to be constructed to appease societal assumptions when taking into consideration that its behavior is always recognized by the public, which is in accordance with the institutional idea (Al-Twaijry, 2003). According to Maina (2018), several businesses have a propensity to maintain internal structures that are not usually visible to people who are external to the company, while the frameworks that are built for outsiders fail to contribute to the achievement of favorable end results. Recently, there has been an increased demand for management to seek and implement modern management ideals in order to guarantee that the business is governed in a manner that is efficient and effective for the advantage of the board, and eventually, for the betterment of the shareholders. A significant number of them have arisen as a consequence of societal expectations in reaction to crises involving corporations (Mugwe, 2012).

This line of thinking led the researcher of this study to arrive at the conclusion that the aforementioned firm structures include management control systems that were set up to fulfill a variety of control and compliance criteria that were created as a direct consequence of corporate scandals. This variety of controls consists of reassurance feedback mechanisms like the value-added services provided by internal audit, which are utilized by the board, managers and external auditors to accomplish their enlarged accountabilities in accordance with society's anticipations. The role of internal auditing is one of the main instruments that companies use to deal with the changes that are occurring in their external surroundings. Institutional theory posits that an organization is made up of the cultural, social, and technical factors that make up its larger institutional context (Durand, 2019).

Kimotho (2014) suggests that internal auditors at public TVET institutions should make an effort to perform an in-depth analysis of their working environment to guarantee that they are effectively carrying out their functions without compromising their autonomy. For this reason, public TVET institutions need to get ready to be held accountable for the reasonable costs of implementing multiple improvements in the internal audit division. This is necessary to guarantee that employees are granted independence in their functions with regard to the scope of their work, access to audit evidence, the level of reporting, and the provision of non-audit services. Improving the effectiveness of internal audits will require public TVET institutions to do so. This can be attained by holding official meetings of internal auditors, audit committees, and senior-level management. The purpose of these meetings is to enable auditors to become fully familiar with their environment and to ensure that internal auditors uphold competent skills and dedication in the course of implementing their duties in these TVET Institutions.

2.1.3 Theory of Inspired Confidence

According to Kiema (2015), Limperg was the one who first proposed the notion of inspired confidence in 1932. This theory is also known as the theory of reasonable expectations. This theory tackles both the need and the supply, in which stakeholders expect responsibility from the managers in consideration for their involvement in the company (Adams, 1994). This theory additionally tackles the supply side of the equation. The involvement of third parties as stakeholders in the company has a direct bearing on the need for auditing services, which is a natural result of this involvement. In exchange for their financial contributions to the company, these parties will never stop demanding responsibility from the management.

This approach is applicable to the current investigation since responsibility in the aforementioned public TVET institutions may be achieved via the dissemination of periodic financial reports. An internal audit function is necessary, but, since the information that is supplied by management may include bias, and other parties do not have any direct methods of tracking, in order to ascertain and instill trust in the stakeholders about the dependability of the information being provided, an internal audit unit is needed. In view of the provision of audit assurance, the internal auditors should constantly make an effort to match the demands of the stakeholders, as was mentioned by Limperg. The agency theory often lends its weight in favor of the inspired confidence theory. This is due to the fact that an auditor is typically hired to serve as a solution to the issue of assurance on behalf of both third parties and management.

Internal auditors are usually given the obligation of verifying that the institution's resources are being used appropriately and that management is providing accurate accounting for those resources. This responsibility is delegated to the internal auditors by the public TVET institutions. The activities of these auditors play a useful role in management since they are essential for lowering the danger of misconduct and corruption while also fostering credibility, equality, and proper conduct on the part of public sector officials (Supplemental Guidance, IIA Global, 2012). In this context, internal auditors in public TVET institutions are obligated to be autonomous in their duties in terms of the accessibility of audit-proof and records, the scope of work, the level of reporting in the organizations, and how far they go with the provision of non-audit services in the learning organizations. This is to ensure that the internal auditors are able to efficiently carry out their assurance function and give certainty to the various stakeholders.

2.3 Conceptual Review

A comprehensive analysis of the existing literature from a conceptual standpoint is issued in this section. This research task will establish and delineate the dependent and independent variables.

2.3.1 Internal Audit Independence

According to ISPPIA (2017), to achieve effectiveness, it is necessary for internal auditing activities to maintain independence from organizational stakeholders. Internal audit independence is defined by the norm as the absence of situations that may compromise the capability of internal auditors to undertake their duties in an impartial manner, or as a state in which measures are taken to adequately mitigate any risks to the auditors' objectivity. Independence has been characterized as the act of refraining from circumstances that might potentially compromise objectivity or allow personal bias to impact sensitive decision-making. Auditor independence refers to the lack of any kind of authority or oversight over the actions, behavior, and opinions of the auditor (IIA, 2013). It indicates the capacity of the auditor to convey their findings in a truthful and unbiased manner. The autonomy of auditors inside a firm is often regarded as a fundamental aspect of the auditing profession. This is because their objective assessment provides valuable insight to management on the correctness and dependability of the financial information, therefore reflecting the true and fair position of the company's financial status during a certain time (Kiema, 2015). In order to enhance the credibility of an internal auditor's perspectives, findings, and propositions, it is essential that the auditor maintains independence from both the people and operational operations of the company. Failure to do so would compromise the integrity of the auditor's work.

2.3.1.1 Scope of Work

The Public Financial Management (PFM) Regulations and the Internal Audit Charter provide a solid foundation for the operational fundamentals of internal auditing and serve as a charter for the function of internal auditing. According to these papers, the unimpeachable independence and neutrality of the auditor is one of the vital requisites in determining how effective they are. Their directions emphasize that the auditors should work in an environment free from any external or internal pressures that might cloud their judgements and prevent them from carrying out their jobs effectively. This framework gives auditors the ability to scrutinize the governance, risk management, and control procedures of a firm with the utmost attention, which in turn strengthens the credibility of the auditors' findings.

Nevertheless, as you very well point out, there are a number of obstacles that may impede the auditor's ability to tackle their assignments and obligations. According to Mihret et al. (2010), limitations in the scope of work become apparent when the auditors discover that they are constrained in their work either by a lack of key data or by obfuscations from management. Even the complete destruction of accounting ledgers might be enough to undercut their efforts and render the instruments they use for objective assessment useless. The repercussions from the appearance of such limits often extends farther than a reduction in the auditors' overall effectiveness. The fundamental problem is that they are losing their professional status, which is a major concern. They are in a precarious position with regard to maintaining their autonomy, neutrality, and, therefore, their credibility. The true tragedy happens when this lack of independence and breadth prevents them from meeting the basic aim of an audit, which is to offer an unvarnished and thorough picture of the health of an organization. As a result, the implications are quite broad and far-reaching, having an effect not only on the auditors but also on the stakeholders who depend on their findings for making well-informed decisions.

According to the website Accounting Hub (2022), internal auditors often do not have a defined scope of work, despite the fact that they do have certain criteria that they may follow so as to manage their task in a suitable manner. In certain businesses, the most senior members of management are the ones who decide how the internal audit role should be undertaken. It is possible that the internal audit will not perform as intended if management does not offer clear instructions on the separation of roles (D'Onza et al., 2015). When the internal auditor's scope of work is limited, it may make it more difficult for them to handle risks in the manner in which they believe is appropriate. As a result, the auditor risks losing their independence, impartiality, and professional credibility.

2.3.1.2 Access to Audit Evidence

It is necessary for internal auditors to have to have unrestrained, immediate, and direct access to documents, officials, contractual staff, and assets that belong to the organization in order to comply with the Public Financial Management (PFM) Regulations (PFMR, 2015). While the internal auditor should take care to protect the confidentiality of the material that has been acquired, they should also use judgement and only use the data to the extent that it helps them develop an opinion about the effectiveness of the audit. According to ACCA (2015), the autonomy of an auditor is put in jeopardy when management limits access to crucial documents. Because of this obstacle, it is difficult for the auditor to reassure the organization's stakeholders about the health and efficiency of the organization.

The CIIA (2015) provides more elaboration on the concept of access to records by stating that records are not only gathered during specific audit assignments but rather play a vital function in the planning, guiding, and overseeing of all activities associated with the many levels of internal auditing. IIA (2015) asserts that an internal audit service is in a vulnerable position if it does not have adequate access to such information, and that its efficacy would undoubtedly be damaged as a result of this situation.

The individual who oversees the company's internal audits is the one who is responsible for handling this vast amount of information in a prudent manner. Typical responsibilities associated with this function include ensuring that all information is complete, up to date, and protected against loss or scrutiny by unauthorized parties. The head of the organization's internal audit department often provides periodic assurance to the Senior Information Risk Owner (SIRO) of the company. This is considered to be normal practice since this assurance is in line with the entity's policies on information assurance (ISPPIA, 2017).

2.3.1.3 The Level of Reporting

Internal auditors have the challenge of negotiating a complicated allegiance that requires them to be loyal to both the committee of audit and the organization’s management (Audit Committee Charter, 2016). Internal audit personnel are, on the one hand, members of the workforce who are hired and compensated by the same management they are tasked with monitoring and inspecting. Despite the fact that they do not provide daily updates to the committee, they are required to answer to it for strategic advice and accountability. The committee, on the other hand, carries a significant amount of weight in regard to the appointment of the internal auditor. This dualistic perspective results in a reporting structure that is one of a kind. According to IIA (2015), the head of an organization's internal audit unit should ideally engage with the top management, most often the CEO, on day-to-day activities, assistance, and administrative details. However, when the conversation gets to issues of strategic direction, fortification, and accountability, the head of internal audit turns his or her attention to the audit committee. This delicate role is a fundamental component of the internal audit job, and the auditor's ability to grasp it is critical for the auditor's overall effectiveness and independence.

In most cases, the committee of audit is responsible for playing a crucial part in determining the trajectory of the internal audit (Musallam, 2020). The committee is frequently charged with endorsing the terms of reference, risk assessments, yearly audit design, and budget for the internal audit. In addition, this governing body is still engaged in important personnel decisions, regarding the engagement, assessment, and salary of the chief internal auditor (Chartered Institute of Internal Auditors, 2015). This decision-making process might potentially lead to the head of internal audit being fired. The committee also functions as a sentinel, keeping an eye out for any scope or budgetary limits that might impede the internal audit's capabilities. In this capacity, the committee monitors the status of the internal audit. On the other hand, the interaction between the internal auditor and the CEO focuses on more administrative and routine responsibilities. These often include the demarcation of budgets, the administration of human resources, the facilitation of inter-office contacts, and day-to-day administrative tasks such as the authorization of costs or leaves.

Conserving auditor independence is an essential component, despite the fact that the reporting relationships might differ significantly from one organization to the next. The need of having a clear and open line of responsibility leading up to the audit committee was emphasized by the IIA in their 2015 publication. To support this point, there should be private channels of contact between the head of internal audit and the committee, with planned tête-à-têtes serving as a common method for facilitating such communication. Some heads of audit committees go even farther, developing a less formal but continuing dialogue with the company's internal auditor outside of the sessions that are officially scheduled for the committee.

The audit committee has the responsibility and the obligation to strengthen the standing of the internal audit inside the organization as well as the operational independence it has. In order to do this, it is necessary to guarantee unhindered access to vital data, assets, and human resources. According to the Audit Committee Charter (2016), the committee is accountable for providing support to the internal audit in its efforts to get any necessary explanations or data needed to successfully perform its objective.

2.3.1.3 Provision of Non-Audit Services

The Financial Reporting Council (2014) defined non-audit services as a spectrum of activities that are separate from the formal inspection of financial statements. These services include tax advice, IT assessments, corporate finance counselling, and a variety of other consulting responsibilities ranging from regulatory filings to forensic analysis. Notably, preventative measures need to be taken if a partner or member of the staff has a history of auditing a publicly listed company spanning seven years or more. In accordance with the FRC (2011) these precautions have been implemented with the purpose of mitigating risks associated with excessive familiarity, self-review, and entrenched interests.

This concept is discussed in depth by Accounting Hub (2022). Non-audit duties might comprise delivering attestations, carrying out internal control evaluations and even dabbling in specialized domains such as debt advising and pension counsel. Even while auditors make every effort to keep an unshakable level of objectivity, the ethical waters they work in are occasionally muddied by pressures from the outside (Goodwin, 2001). The task of vehemently rejecting any service offers that might compromise an auditor's unbiased stance or violate legal restrictions falls on the shoulders of the audit committee. Study conducted by Kimotho (2014) sheds light on this particular issue, identifying a main source of such possible conflicts as the range of non-audit jobs that auditors typically undertake for their customers. This study is illuminating since it sheds light on a problem that needs to be addressed.

Indeed, auditors who are involved in a wide variety of responsibilities other than auditing may discover that their independence is put in a vulnerable position. It gets more difficult to keep a clear and objective perspective the more entangled the services that are provided. As a result, the audit committee plays the role of an essential gatekeeper by ensuring that the barrier that separates audit tasks from other responsibilities is not violated. This protects the unimpeachable status that auditors are required to maintain in order to provide their priceless judgements.

2.3.2 Internal Audit Effectiveness

The investigation of the effectiveness of internal audits has unquestionably sprung to the forefront of attention in recent years, becoming a crucial field of research for academics as well as professional organizations. In a clear and concise statement, the IIA (2010) defined effectiveness as a measurement of how successfully internal audit functions accomplish the goals that have been outlined for them. In spite of the fact that researchers have different areas of emphasis, they all agree that an audit is effective if and only it accomplishes the aims and goals that it set out to accomplish, (Badara & Saidin, 2013). In his study, Ridley (2008) dives into the fundamental aspects of internal auditing known as the "three Es": effectiveness, efficiency, and economy. Ridley believes that, among them, effectiveness is the most important "E." When it comes down to it, efficiency and economy are of little use if the audit function itself is ineffective and floundering.

According to a definition that was proposed by George et al. (2015), the very essence of an effective internal audit is crystallized in the value that it injects into a firm. This value is solidified in the fact that an effective internal audit assists managerial efforts to reach institutional goals while simultaneously strengthening risk management and operational control frameworks. In their study, Alzeban and Gwilliam (2014) agree with the attitude and propose that an effective internal audit is an absolute need for the success of a company. Therefore, the effectiveness of an internal audit is not only a topic for debate in the academic world; rather, it is an essential factor in determining how far an organization will go in its pursuit of success.

2.4 Empirical Review

The empirical study aims to shed light on the connections between four separate independent variables, namely scope of work of internal auditor, access to audit evidence, level of reporting and the provision of non-audit services. In this research, the effectiveness of internal audit will be the dependent variable. Existing academic studies in this specific field will have more light shone on them as a result of this research.

2.4.1 Scope of Work and Internal Audit Effectiveness

Audit scope and independence have a mutually beneficial connection, which is supported by the IPPF's 1110.A1, standard, which was published in 2017. This concept emphasizes that an internal audit unit can only genuinely flourish when given the liberty to define its scope, carry out its objective, and communicate its results. Only then can an internal audit function truly thrive. In a similar vein, Kimotho (2014) propounds that scope constraints develop when an auditing team is inhibited, sometimes because they are denied access to essential documents or intelligence. Because of this kind of interference, the chief audit executive is obligated to elevate the problem as soon as possible, putting it into the boardroom limelight so that they may discuss the potential consequences. Shamki and Alhajri (2017) conducted more research on this subject. Through the examination of audits conducted in the Omani public sector, the researchers discovered a significant and powerful association between the scope of an audit and the effectiveness with which auditors performed their duties.

Mihret et al. (2010) contend that these two aspects of Libyan public businesses have a direct and mutually beneficial connection with one another. Research conducted by William et al. (2013) and Sakour and Laila (2015), comes to a similar conclusion, stating that the effectiveness of audit function is influenced by the amount of independence as well as suitable financial resources. According to the Basel Committee (2012), the functional scope of an audit has to incorporate the whole of the company in order to provide the board the ability to carry out its responsibilities. They stress that the audit function should independently define the extent of its responsibilities in order to retain its independence.

According to Hellman (2011), chief financial officers routinely attempt to exert influence on the selection of audit scope, which has a negative influence on the independence of auditors. Ebissa (2015) suggests giving auditors the discretion to select the scope of their job, which would increase their effectiveness and make the previous recommendation more relevant. This flexibility includes the ability to decide the timing of the audit, the processes to be followed, and the direct reporting lines. This study focuses on public TVET institutions in Western Kenya and employs a linear model of regression to determine how the scope of audit work, denoted as X1, affects the effectiveness of internal audit.

2.4.2 Access to Audit Evidence and Internal Audit Effectiveness

It is essential that auditor personnel have unrestrained access to relevant data to improve the effectiveness of internal audit. ISPPIA standard 1111 (2017) makes it abundantly clear that independent and effective audits are promoted through direct contact between the auditor and the organization's board, in addition to access to documents. The CIIA (2015) agrees with this assessment and asserts that the effectiveness of an audit may be improved when it is not hindered by obstructions. Alzeban and Sawan (2013) conducted research on the government sector in Saudi Arabia and came to a conclusion that audit independence may be attained via a variety of different channels. Among them are the unfettered determination of the scope of the project and complete access to both documents and staff.

Arena (2013) contribute to the ongoing study by emphasizing the need of guaranteeing access to financial records, statements, and other essential information in order to achieve higher levels of efficiency. These comments are echoed by Delai and Omri (2016), who point out that auditors should have unhindered access to organizational departments, documents, and top management in order for audits to be considered successful. This research focuses on public TVET institutions in Western Kenya. It seeks to evaluate how access to audit evidence, which is represented by the variable X2 in a linear regression model, affects the effectiveness of internal audit.

2.4.3 Level of Reporting and Internal Audit Effectiveness

The ISPPIA guidelines clarify the structural requirements that must be met to ensure the independence of auditors while traversing the complex maze of internal audits. Standard 1110 weighs in on the discussion by noting that the CIA should report to a sufficiently high echelon within the business for the internal audit component to be able to perform its functions effectively. The IIA Research Foundation (2011) goes one step further, arguing that autonomy for auditors thrives when the chief audit officer has a functional reporting line to the board of directors of the organization. To elaborate on this point, IPPF standard 1110 (2017) specifies requirements that must be met by the chief audit executive. The audit team has to provide written guarantees to the board on at least an annual basis, if not more often to ascertain organizational autonomy.

These kinds of reporting paradigms are helpful in the process of offering auditors a significant amount of functional freedom. This independence extends across a number of different areas, including the following: authorizing the audit charter; developing risk-based internal audit schemes; assigning financial and other resources; accepting directions; dealing with management; and preparing for human capital. The combination of these factors hints that well-defined reporting connections and governance norms are not just administrative nuances to be ignored. In fact, they should be considered the bedrock for an effective and impartial internal audit function.

The compelling concept that the reporting structure of internal auditor personnel plays a useful role in influencing the effectiveness of those auditors can be found weaved across a number of different research. According to Alzeban and Gwilliam (2012), having a solid reporting architecture significantly magnifies audit effectiveness. In a more in-depth explanation, George et al. (2015) clarifies that auditors' independence must be reinforced by the fact that functional reporting must be made to a high-ranking authority. This results in a greater functional scope, more extensive communications, and strong action on audit advice, among other benefits.

According to Delai et al. (2016), the chief auditor should report administratively to senior executives and functionally to the board of directors. This view is echoed by the authors of the aforementioned study. Independence and effectiveness may both be fostered by having such a dual structure.

Haji and Anifowose (2016) propose a somewhat different approach by concentrating on the function that audit committees play in integrated reporting systems as having a synergistic effect. They concluded that there is a concrete and positive connection between the effectiveness of internal auditors and their ability to functionally report to an audit committee. In particular, organizations that have auditors who report to audit committees perform better in terms of audit effectiveness than organizations that do not have such committees.

When it comes to the operation of internal auditing, the level of management to whom auditors report is one of the most important factors in determining how successful they are. Within the setting of Belgium, Sarens and Beelde (2006) were able to peel back the layers of this connection. This research was acknowledged by Salehi (2016). They made the observation that the strength of an audit committee often determines the quality of the engagement that committee has with internal auditors. Salehi provides an additional layer by proposing that the effectiveness of audits may be fueled by a combination of independence and objectivity. In order to achieve this synergy, he recommends for a reporting structure that is split, with administrative reporting to the CEO and functional reporting to an upper-echelon authority such as an audit committee. An additional perspective is provided by Hailemariam (2014), who investigates the aspects that ascertain the success of internal audits in a selection of Ethiopian governmental agencies. The findings of the research came to a similar conclusion: the reporting stratum of the auditors has a significant impact on their efficacy, particularly in management of public-sector organizations.

The previously conducted research serves as motivation for the current study, which focuses on public TVET Institutions in Western Kenya. In particular, it investigates how the level of reporting, which is denoted by the X3 variable in a linear model of regression, affects the effectiveness of the internal audits performed at these educational institutions.

2.4.4 Provision of Non-Audit Services and Internal Audit Effectiveness

Chukwunedu and Okafor (2014) concluded that the NAS impair audit independence and audit objectivity. The impairment or absence of auditor independence is a key reason for a lot of corporate collapses and corporate scandals around the world, including the US Case of Enron where the existence of high NAS fees paid to the auditor of Enron was the major instigator to blame for the audit failure
Chukwunedu and Okafor (2014) concluded that the NAS impair audit independence and audit objectivity. The impairment or absence of auditor independence is a key reason for a lot of corporate collapses and corporate scandals around the world, including the US Case of Enron where the existence of high NAS fees paid to the auditor of Enron was the major instigator to blame for the audit failure
Chukwunedu and Okafor (2014) concluded that the NAS impair audit independence and audit objectivity. The impairment or absence of auditor independence is a key reason for a lot of corporate collapses and corporate scandals around the world, including the US Case of Enron where the existence of high NAS fees paid to the auditor of Enron was the major instigator to blame for the audit failure
The question of whether or not internal audit duties may be compromised by non-audit services has been debated across the relevant literature. Chukwunedu and Okafor (2014) provide their support to the contention that the provision of these services compromises the government's capacity to act independently and objectively. When one thinks back on corporate scandals like the notorious Enron catastrophe that took place in the United States, the lack of independence on the part of auditors becomes immediately apparent. According to Hussein and Abdelmohsen (2018), the excessively high non-audit service costs are the primary factor that contributes to the

failure of audits. Conversely, Canning and Gwilliam (2010) delve into the murky seas of perception and make the observation that the auditor's perceived independence and effectiveness tend to decrease when the auditor provides services that are not related to auditing. The tendency itself throws a shadow over the practice, even if the precise causation behind it is difficult to pin down. The authors DeFord et al. (2010) give an opposing viewpoint. According to the results of their investigation, the supply of services that are not related to auditing does not always breach the autonomy of the internal audit unit.

Albaqali and Kukreja (2017) investigated the auditing environment in Bahrain and amplified the notion that non-audit services erode auditor independence, which often results in audit failures. Their results are in line with those of the Basel Committee (2012), which recommends that auditors avoid providing services that are not related to auditing. To be more specific, the admonition issued by the Committee includes a prohibition against participation in the planning, selection, or implementation of internal controls. The examination that Anichebe (2010) conducted into the Nigerian context adds another twist to the situation. In this context, auditors seem to accept any services, with the exception of those that are outside their expertise, provided that proper engagement letters are present (Nwaobia et al., 2016). Anichebe contends that this practice runs smack into the standards of independence that are already in place because there are not enough trained accountants to go around, the same auditor has to wear two hats: he or she must both prepare and audit the company's financial statements.

According to Kimotho (2014), an internal auditor's performance of non-audit responsibilities muddies the waters of the auditor's independence, which ultimately leads to a lackluster performance of the role. Delai and Omri (2016) argue that avoiding non-audit activity serves as a shield, protecting an auditor from the danger of engaging in self-review, which might compromise the auditor's impartiality. In a similar vein, Sobrinho and Bortolon (2016) provide an alternative viewpoint based on their examination of 154 Brazilian companies. They assert that non-audit duties do not cloud the picture of auditor independence in any way. This opinion is echoed by Hay et al. (2016), who argue that auditors' minds and appearances aren't hindered by the performance of new jobs since auditors are able to multitask.

The previously conducted research serves as motivation for the current study, which focuses on public TVET Institutions in Western Kenya. In particular, it determines how provision of non-audit services, which is denoted by the X4 variable in a linear regression model, affects the effectiveness of the internal audit function.

2.4.5 Internal Audit Independence and Internal Audit Effectiveness

An essential part of an auditor's job is to successfully navigate the intricate mazes of independence requirements. The directive issued by the IIA (2017) summarizes this point. Auditing must continue to be a completely independent act, free from interference or pressure from any parties who have a stake in the result of the audit, according to the organization's guidelines, if it is to maintain any semblance of actual effectiveness. Kadondi (2012) puts forward that auditing process that is hampered by a lack of independence reduces the possibility that it will have a good influence to the organization. Ahmad, Othman, and Jusoff (2009) conducted research into the auditing culture of Malaysia and came up with a profound realization. They found that autonomy has a significant impact on the effectiveness of internal auditing, particularly in terms of auditor objectivity. A little swing in the other direction is propounded by Dibia (2016). Given that auditors are, after all, employees of the entities they audit, he recognizes that complete independence may be an unattainable pipe dream. However, he pushes for a certain mental liberty, which he defines as a place where auditors may stretch their critical muscles without shuddering at the possibility of being punished for doing so. The argument presented by Dibia helps to shed light on the dichotomy of auditors serving as both workers and watchdogs. The tension that is produced as a result of this dynamic gives validity to the idea that independence may not be an absolute condition, but rather a spectrum that internal auditors should strive to occupy as much as the circumstances would allow for them to do so.

Additional results from Njagi (2023) align with findings from earlier studies and reinforce the premise that unfiltered autonomy improves an auditor's ability to provide helpful advice on control procedures. The relentless independence of auditors is comparable to an unsung hero since it guides organizations toward effective controls (Kaplan Financial Knowledge Bank, 2016; Moraa, 2013). However, autonomy continues to be an ambiguous concept, a mirage in a sense, since it is neither entirely achievable nor entirely missing. Alzeban and Gwilliam (2014) suggest that even while auditors can never completely sever all ties to management, the auditor's impartiality and mental frameworks may nonetheless chart a road towards anything that comes close to resembling independence. On a different note, Yee et al. (2008) provides a warning tale: When an auditor loses their independence, their scope and their ability to perform effectively both shrink like raisins in the sun. There is a decrease in credibility.

Ebissa (2015) sheds light on the Ethiopian environment by proposing the idea that the organizational autonomy of auditors is a formidable force. It is a linchpin, which means it has a lot of weight and influence, in terms of determining how successful internal auditors can be. The significant concept that the usefulness of audit services to an organization is essentially tied to the guarantee of functional independence and objectivity was elucidated in a scholarly contribution made by (Subramaniam and Stewart, 2010). This perspective was backed up by the outcomes and analysis conducted by Elizabeth (2012), which contend that the auditor's degree of autonomy has a massive impact on both the honesty and the reports quality that are produced. The statement made by the Financial Knowledge Bank (2016) hint that possible landmines that might derail this autonomy include ethical risks such as self-interest, self-review, and coercion. As outlined by IIA (2015) guidelines, it is vital to set up suitable mechanisms so as to anticipate the impending hazards that are looming over organizations.

ISPPIA Attribute Standard 1130 (2017) puts a strict obligation on the chief audit executive. These viewpoints are complementary to this requirement. Specifically, the standard requires the prompt notification to the appropriately authorized entities of any appearance of an impediment to the entity's ability to act independently. This lends credence to the viewpoint expressed by D'Onza et al. (2015), which states that the cultivation of confidence in internal auditing services requires a discernible degree of autonomy on the part of the auditors. It is pivotal to note that the job of the audit committee in corporate governance is jeopardized without them. On the other hand, Delai and Omri (2016) as well as Salehi (2016) observed that although independence and objectivity are indisputable requirements for the effectiveness of internal audit operations, this does not mean that they are more important than other aspects, such as support from management and the degree of competence possessed by internal personnel.

As described by ISPPIA (2017), the most important concept for achieving maximum effectiveness in internal auditing is contingent on a number of different variables. In this context, "unfettered latitude" refers to the freedom to choose the scope of audit activities as one sees fit, "reporting lines that ascend to the zenith of organizational authority" refers to proper levels of reporting, "unfettered access to crucial audit evidence," refers to unrestrained access to audit information and "abstinence from executive or non-audit roles" refers to not performing roles that involve auditing. Alzeban and Sawan (2013) provides more elaboration on this topic by offering a variety of procedures. These mechanisms include comprehensive access to employee contacts and documentation, governance via board-controlled budgets, and strict rules on the nomination or removal of Chief Audit Executives (CAE).

In light of the available empirical corpus, the purpose was to fill a glaring vacuum in the academic literature, with a specific emphasis on Public TVET Institutions in Western Kenya. This research was inspired by the scarcity of scholarly attention that has been bestowed upon these institutions, and its primary objective is to investigate how the stipulated variables—specifically, the scope of audit work, access to audit evidence, level of reporting and provision of non-audit services—affect the effectiveness of internal audits.

2.5 Summary and Research Gaps

Based on the review, the study noted the following gaps.

Table 2.1: Summary and Research Gaps

Author/ Year	**Focus of study**	**Research Methodology**	**Findings**	**Knowledge gaps/Filling the gap**
Ahmad, Othman & Jusoff (2009)	The effectiveness of Internal Audit in Malaysian government	Exploratory research design Primary data; Questionnaire (Respondents- internal auditors in Malaysian public sector) Correlation analysis Sample size- 99 respondents	Audit quality, top management support, auditor independence and interaction with audit committee has a positive and significant influence on internal audit effectiveness.	i)The study employed exploratory research design whereas present study used causal research design. ii)Respondents of the study were internal auditors in Malaysian government; Current study included internal auditors, senior level managers and audit committee in Public

				TVETs in western, Kenya as respondents. iii)The study used correlation analysis whereas current study used multiple regression analysis.
Alzeban & Gwilliam (2014)	Factors affecting Internal Audit Effectiveness: A survey of Saudi Public Sector.	Descriptive research design Primary data; Questionnaire (respondents- internal auditors and managers in Saudi public sector) Multiple Regression analysis Sample size-203 managers and 239 internal auditors	Managerial support, audit staff competence, training and auditor independence has a significant impact on internal audit effectiveness.	i)The study utilized descriptive research design while current study employed causal research design. ii)Respondents included internal auditors and managers in public sector. Current study involved internal auditors, senior managers and audit committee members in public TVETs in western, Kenya.
Kimotho, (2014)	Factors Affecting Internal Audit Independence: A Case Study of Technical University of Mombasa.	-Descriptive research design -Primary data; Questionnaire (TUM employees) -Simple regression analysis	-Limitation of scope, reporting structure and traditional role of internal auditors affects independence of	i)The study employed descriptive research design but present study used causal research design. ii)Research was limited to one TVET institution

		-Sample size-50 employees	internal auditors.	in Kenya. Current study focused on more than one Public TVET institutions in Western region, Kenya. iii)Sample size was 50 employees whereas current study used a sample size of 89 respondents.
Mustika, (2015)	Factors affecting Internal Audit Effectiveness in organizations, Java Province, Indonesia.	Descriptive survey design Literature review: Contingency theory Primary data; Questionnaire (internal auditors of inspectorate of central Java) Multiple regression analysis Sample size- 33 internal auditors	Auditor competence, independence and auditee support have a positive and significant effect on internal audit effectiveness.	i)The study utilized descriptive survey design but current study used causal research design. ii)Study used contingency theory as the main theory whereas current study will use agency theory as the main theory. iii)Sample size was 33 respondents but current study will have 89 respondents.
Nyaga, (2018)	Evaluation of factors affecting internal audit effectiveness in Kirinyaga county government	Descriptive survey design Primary and secondary data technique Linear regression	Audit work environment, internal audit independence and monitoring of internal audit	i)The study used descriptive survey design while current study used causal research design. ii)Study used both

		analysis Sample size-46 internal auditors in Kirinyaga county government	has positive and significant effect on Internal Audit Effectiveness.	primary and secondary data whereas current study used primary data only through questionnaires. iii)Sample size of the study was 46 respondents whereas current study used a sample size of 89 respondents.
Salihu (2015)	Impact of Internal Audit Unit on the Effectiveness of Internal Control System of Tertiary Educational Institutions in Adamawa State-Nigeria.	Descriptive survey design Primary data; Questionnaires (internal audit staff, finance staff and registry staff) Chi-square technique Sample size-8 tertiary educational institutions; 200 respondents.	Internal audit independence has a significant effect on audit effectiveness.	i)Study used descriptive survey research design whereas current study used causal research design. ii)The respondents of the study were internal auditors, finance staff and registry staff but current study involved internal auditors, managers and audit committee members of public TVETs in western, Kenya. -The study used Chi-square technique. Current study used regression analysis.

				iii)The study sampled 8 tertiary educational institutions. Current study will use 14 public registered TVET institutions in western, Kenya.

Source: Author's computation (2022)

2.6 Conceptual Framework

Figure 2.1 visually delineates the intricate relationships between independent and dependent variables under consideration. In this framework, the independent variables, scope of work, access to audit evidence, level of reporting and provision of non-audit service are distinctly highlighted. These interact with the dependent variable, Internal Audit Effectiveness.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter digs deep into the research approach behind this study. In addition to providing a solid framework, it illustrates the geographical canvas that is being analyzed and elaborates on the research design that was used. It goes further into the demographic it is aimed at as well as the sample strategies that were used. In addition to this, it explains the methods of data collection and the following analytical process. Notable is the fact that the measures for variable quantification are broken out in this chapter, which also lends credibility by discussing issues of reliability and validity. Lastly, ethical dilemmas and restraints are discussed in this chapter.

3.2 Study Area

This investigation was performed in the Western region of Kenya, and it included a total of four different counties: Kakamega, Bungoma, Busia, and Vihiga. At the time of research, the terrain was a home to a total of 14 Public TVET Institutions, all of which are now functioning in accordance with official accreditation and licence (KATTI, 2022). It features a variety of TVET Institutions namely: Sigalagala National Polytechnic, Friends College Kaimosi, Shamberere Technical Training Institute, Sabatia Technical and Vocational College, Matili Technical Training Institute, Kisiwa Technical Training Institute, Butere Technical and Vocational College, Sang'alo Institute of Science and Technology, Okame Technical and Vocational College, Bushiangala Technical Training Institute, Bumbe Technical Training Institute, Bunyala Technical and Vocational College, Musakasa Technical Training Institute and Mumias West Technical and Vocational College.

The decision to go with the Western area has several positive repercussions. On one hand, the variety of TVET Institutions provided the research with a wide and representative popoulation to work with. The proximity of the researcher to the location made it easier to gather data in a timely and effective manner. A further motivating factor was the relative scarcity of previously conducted studies within the region's TVET environment pertaining to the independence and effectiveness of internal audits. As a result of this shortage, the region became a rich ground for the development of new academic inquiry.

3.3 Research Design

As stated by Cresswell (2014), a research design is a roadmap which tracks the researcher through the processes of data gathering, analysis, and interpretation. A causal research design was employed in this investigation. According to Baskerville and Pries-Heje (2014), this design has been commended for its ability to investigate the cause-and-effect links that exist between the various variables. The purpose of causal study is not just to identify pre-existing connections, but also to quantify the ways in which one variable influence another (Bowen et al., 2017).

For the purpose at hand, which centered on the effectiveness of internal audit carried out at public TVET institutions located in Western Kenya, the causal study design proved to be an extremely suitable method. This design provided a solid foundation for analyzing the dynamic relationship between the independence of internal audit and their effectiveness in the context of the intended academic environment.

3.4 Target Population

The phrase "target population" was described by Zhao et al. (2013) as an ensemble of components that might either be finite or unbounded. According to the data provided by KATTI (2022), Western region of Kenya has a total of 14 publicly licensed TVET institutions that are encompassed in the study. Noteworthy is the fact that the research focused its attention on a target demographic that consisted of 116 participants. This group was further subdivided into 50 senior-level managers, 52 members of the audit committee, and 14 internal auditors, all of whom were drawn from public TVET Institutions located in Western Kenya. These individuals are the ones who, in essence, shape the internal audit unit in order to guarantee its autonomy and, therefore, its effectiveness. Individuals such as Principals and Deputy Principals who are in charge of Academics and Training, together with those who are in charge of Administration, and of course, Chief Finance Officers, make up the higher ranks of management. It is of utmost importance, however, to acknowledge that the organizational structures of these TVET facilities were different. As a result, this resulted in the target population having more diversity as noted in Table 3.1.

Table 3.1: Target Population

Public TVET Institutions	**Senior level management**	**Audit Committee**	**Internal auditors**	**Total**
Sigalagala National Polytechnic	4	4	1	11
Friends College Kaimosi	3	4	1	11
Shamberere Technical Training Institute	4	4	1	10
Sabatia Technical and Vocational College	3	4	1	9
Matili Technical Training Institute	3	3	1	8
Kisiwa Technical Training Institute	4	4	1	11
Butere Technical and Vocational College	4	3	1	9
Sang'alo Institute of Science and Technology	4	4	1	10
Okame Technical and Vocational College	3	3	1	8
Bushiangala Technical Training Institute	4	4	1	9
Bumbe Technical Training Institute	3	4	1	10
Bunyala Technical and Vocational College	4	4	1	9
Mumias West Technical and Vocational College	4	4	1	9
Musakasa Technical Training Institute	3	3	1	8
TOTAL	**50**	**52**	**14**	**116**

Source: Compilation from Kenya Association of Technical Training Institute website (2022)

3.5 Sampling Design And Sampling Procedure

A combination of stratified and simple random sampling approach was utilized to have a better understanding of the details of the research. This two-pronged strategy consisted of dividing the whole target population of 116 people into two distinct groups, or "strata," based on the functions they performed (Habib, 2014). Etikan and Bala (2017) ascertain that stratified random sampling "serves up a juicier, more representative slice of the population pie" while simultaneously "ratcheting up the precision of estimates concerning the populace at large." A measure of control may be exerted over the inherent variation of the data by segmenting the population into strata, with the ultimate goal being a reduction in the standard error. As a result, the individuals who participated in this research were classified into one of three unique categories: senior management, members of the audit committee and auditors working in the public TVET institutions located in Western Kenya. Within each of these strata, the researcher applied a technique known as simple random sampling to choose 89 individuals from the overall pool of 116 individuals. Using this strategy increases the reliability of any other estimating methods that may be used in the future. Krejcie and Morgan method was used to determine that 89 respondents would be an appropriate sample size.

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

Where;

S = Required sample size

X^2 = The table value of Chi-Square for 1 degree of freedom at the desired confidence level (3.841)

N= The population size

P= The population proportion (assumed to be 0.5 since this would provide the maximum sample size)

d= The degree of accuracy expressed as a portion (0.05)

$$S = \frac{3.841 \times 116 \times 0.5\ (1-0.5)}{(0.05)^2 \times (116-1) + (3.841 \times 0.5 \times (1-0.5)}$$

$$= \frac{111.389}{0.2875 + 0.96025}$$

$$= 89.27$$

$$S = 89$$

The sample size for the study was **89** participants to whom questionnaires were provided.

Table 3.2: Sampling Frame

Stratum	**Population**	**Sample**
Senior level Management	56	50/116 X 89 = 38.36 **= 38**
Audit Committee	52	52/116 X 89= 39.89 **= 40**
Internal Auditors	14	14/116 X 89= 10.74 **= 11**
	N= 116	

3.6 Data Collection Instruments

The research relied heavily on primary data, which refers to information that is unfiltered and obtained directly from the point of origin (Kothari, 2008). The primary tool used to assemble this information was a structured closed-ended questionnaire. Why choose a limited approach? Saunders et al. (2014) states that closed-ended questionnaires are the key to obtaining focused, streamlined responses that are simple to sort through in the future. In an effort to maximize ease of use while also maximizing clarity and dependability, the questionnaire underwent extensive polishing. Questionnaires are pretty much the bread and butter of data gathering when trying to get correct information on a given group, which is why Johnston (2014) would acknowledge such a technique as valid. The study instrument was pre-divided into three distinct portions for optimal use of space and time. The first section, Section A, was a broad data pool of general information of respondents. Section B went into the independence of the internal audit and Section C probed the fundamentals of the effectiveness of the internal audit in the public TVET institutions in Western Kenya.

3.7 Reliability And Validity of Instruments

A preliminary test was carried out before the primary research was undertaken. The purpose for the test was to determine the validity and reliability of the instruments, as recommended by Dikko (2016). The location was Kisumu National Polytechnic which is located in the Nyanza region of Kenya. Because of its numerous advantages, Kisumu National Polytechnic was chosen to serve as the testbed. The magnitude of the organization, the number of employees working in its internal audit office, and the longevity of its audit committee all played a role in achieving the study findings. There were eleven participants, which places this study squarely within the optimal range of 10 to 30 individuals, as described by Hazzi and Maldaon (2015). Although these individuals were not included in the final pool of survey participants, the information that they provided was extremely valuable. A more concise and tidier questionnaire was created as a result of the identification and subsequent elimination of items that presented difficulties. The ambiguities disappeared, the questions got more direct and the process of coding became easier (Wechuli, 2021).

3.7.1 Validity of the Research Instrument

Durand (2019) describes validity as a measurement that determines how accurately research questions are measured by testing equipment. To elaborate on this point, it is the process of successfully adapting a conceptual framework to the requirements of practical application (Aila

& Ombok, 2015). According to Creswell (2014), the criteria for assessing validity may be broken down into four categories: construct, criterion-relate, face and content validity.

The research placed a strong emphasis on the content validity. It served as a gauge for determining the extent to which the goals of the research were satisfied by the data that was obtained. The research instruments were crafted with attention to detail, which guaranteed that they would be effective in the data gathering process. Experts in the area, namely supervisors and academicians from the university were approached for their professional assessments in order to provide further support for the study.

3.7.2 Reliability of the Research Instruments

Golafshani (2013) defines reliability as a yardstick for assessing the consistency of data provided by a certain instrument after a number of trials. This is a concept that pertains to the arena of research. For the purpose of evaluating this quality, the Cronbach's alpha coefficient is utilized. This is a statistical metric that furnishes the researcher with the ability to cross-examine the correlation between item scores obtained from the instrument. The greater the alpha value, particularly for those values that are more than 0.7, the more dependable the instrument. According to Ahmad, Yussiff, and Mustapha (2015), there is an alpha range that is denoted by certain quality thresholds: exceptional if is more than 0.9, good if 0.7 0.9, acceptable for 0.6 0.7, bad at 0.5 0.6, and completely undesirable if is less than 0.5. Pilot test vouched for the reliability of the instruments; the alpha values for all of the variables landed in excess of 0.7, as noted in Table 3.3.

Table 3.3: Reliability Statistics

Determinants	Number of Items	Cronbach's Alpha
Scope of audit work	4	.873
Access to Audit Evidence	4	.789
Level of Reporting	2	.862
Provision of non-audit services	4	.886
Internal Audit Effectiveness	5	.904

Source: Researcher's computation (2023)

The values for Cronbach's alpha articulated the strong internal consistency of the variables that were under scrutiny. The scope of audit work showed an exceptional level of reliability, as shown by the high alpha of 0.873. Access to audit evidence landed at a score of 0.789. The level of reporting demonstrated an impressive alpha value of 0.862 while with an alpha of 0.886, the provision of non-audit services had the highest alpha of 0.904. These results, when taken as a whole, provide strong evidence for internal consistency across all of the variables, so validating that the data-gathering equipment was not simply dependable but also well designed for the sake of accomplishing the goals of the research.

3.8 Data Analysis and Presentation Techniques

A methodical routine was followed while examining the data. Prior to entering the data into the SPSS version 22, the first phases of the process were coding and cleaning the data. The mean and the standard deviation are the key measures during this phase (Field, 2005). Multiple regression analysis was utilized for the purpose of evaluating the null hypothesis. The research was carried out at a significance level of 5%, and the results are only considered convincing if they are able to pass this statistical barrier. Variable Inflation Factor, often known as VIF, performed the work of tackling multi-collinearity difficulties. The model of that was employed to test the study hypotheses is noted below:

Summary of Statistical Model

(i) $Y = \beta_0 + \beta_1 X_1$

(ii) $Y = \beta_0 + \beta_2 X_2$

(iii) $Y = \beta_0 + \beta_3 X_3$

(iv) $Y = \beta_0 + \beta_4 X_4$

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

Where: ϵ = error term assumed to be randomly distributed

Y = Dependent Variable (Internal Audit Effectiveness)

X= Aggregate effect of Internal audit independence in public TVET Institutions

Independent variables, which include:

X_1 is Scope of work

X_2 is Access of audit evidence

X_3 is Level of reporting

$X_{4\ is}$ Provision of non-audit services

β_0 = the constant

β_1……… β_4 = Regression coefficient of the four variables.

The data met the below mentioned assumptions so as to in order to conduct a linear regression analysis:

Normality: This research is based on the premise that the residuals of the variables adhere to a distribution that is normal. This is the most essential assumption. In more straightforward language, the prediction errors for the dependent variable, which will be denoted as Y, should come close to fitting a normal curve. Bryman (2017) emphasizes the utmost significance of the normalcy assumption, particularly with regard to the process of developing reference intervals for the variables that are under discussion. In the event that this assumption is not satisfied, it will be impossible to reach findings that can be relied upon or that are true. This investigation used the Skewness and Kurtosis test to ascertain whether or not the data were distributed normally. This approach followed the methods recommended by Mabele (2018). The premise of data normality has empirical support if the statistical measurements for kurtosis and skewness for both dependent and independent constructs fall within the range of -2 to 2.

Linearity: In situations in which variables X and Y have a linear correlation with one another, it would be pointless to use a linear model of regression to analyze the association between them. According to Jepkoech (2021), the t-test has become the preferred method of statistical analysis for determining whether or not there is a substantial and significant and linear association between independent and independent constructs. When doing an analysis with two branches, it is necessary to compare the calculated value to the critical value of the t-distribution in order to reach a conclusion on the null hypothesis (Greenland et al., 2016). If the divergence from linearity is greater than 0.05, we may take this to be evidence in favor of the presence of a linear connection between the variables that are being investigated.

Homoscedasticity: In statistical parlance, the notion of homoscedasticity refers to situations in which error terms have a consistent variance throughout the spectrum of independent variables. Conversely, heteroscedasticity occurs when the variance of these error terms varies in a way that is not consistent across the levels of the independent variables (Gelfand, 2015). In the present study, the statistical method that was used for determining whether or not there was homoscedasticity was the Levene test. The purpose of this test is to ascertain whether or not the variability of a dependent variable stays the same over a number of different values of an independent variable. When the p-values of the evaluated independent variables are <0.5, the conclusion that can be reached is that the data are homoscedastic. As a consequence of this, it is now acceptable to state that there is consistency in the effect that is produced by the independent constructs on the factor that is being investigated. As a result, the findings of the research lend credence to the hypothesis that both the dependent and independent variables exhibit characteristics of homoscedasticity.

Multicollinearity: Multicollinearity is a circumstance in which two or more predictors within a regression model exhibit strong association (Kothari, 2008). Because of this circumstance, interpretative analysis can be skewed in a negative way, which would reduce the validity of the study outcomes. The Variance Inflation Factor (VIF) or tolerance measures were both used in this research project with the purpose of determining whether or not multicollinearity was present. Baguley (2012) states that the VIF statistic of a predictor measures the degree to which variance inflation occurs when calculating the predictor's individual influence on the model. The values between 1 to 10 for the VIF are considered acceptable; values that go outside of this range serve as signs of potential multicollinearity

3.9 Hypothesis Testing

The research employed the measure presented in table 3.3 for testing the hypothesis

Table 3.3: Summary of Hypotheses Testing

	Hypothesis Statement	**Hypothesis Testing**	**Model**
i	**H_{01}:** Scope of work of internal auditors has no significant effect on internal audit effectiveness in Public TVET Institutions in Western region.	H_{01}: $\beta_1 = 0$ H_{0A}: $\beta_1 \neq 0$ Reject H_{01} if $\beta_1 \neq 0$ and P value $\leq$ 0.05 otherwise fail to reject H_{01} if $\beta_1 = 0$ and P value $> \alpha$ ($\alpha = 0.05$)	$Y = \beta_0 + \beta_1 X_1 + \varepsilon$
ii	**H_{02}:** Access to audit evidence has no significant effect on internal audit effectiveness in	H_{02}: $\beta_2 = 0$ H_{OA}: $\beta_2 \neq 0$	

	Public TVET Institutions in Western region.	Reject H_{02} if $\beta 2 \neq$ and P value $\leq$ 0.05 otherwise fail to reject H_{02} if $\beta_2 = 0$ and P value > α ($\alpha = 0.05$)	$Y = \beta_0 + \beta_2 X_2 + \varepsilon$
iii	**H_{03}:** Level of reporting of internal auditors has no significant effect on internal audit effectiveness in Public TVET Institutions in Western region.	H_{03}: $\beta_3 = 0$ H_{0A}: $\beta_3 \neq 0$ Reject H_{03} if $\beta_3 = 0$ and Pvalue $\leq$ 0.05 otherwise fail to reject H_{03} if $\beta_3 = 0$ and PValue > α ($\alpha = 0.05$)	$Y = \beta_0 + \beta_3 X_3 + \varepsilon$
iv	**H_{04}:** Provision of non-audit services has no significant effect on internal audit effectiveness in Public TVET Institutions in Western region	H_{04}: $\beta_4 = 0$ H_{0A}: $\beta_4 \neq 0$ Reject H_{04} if $\beta_4 = 0$ and Pvalue $\leq$ 0.05 otherwise fail to reject H_{04} if $\beta_4 = 0$ and P Value > α ($\alpha = 0.05$)	$Y = \beta_0 + \beta_4 X_4 + \varepsilon$

3.10 Ethical Considerations

Obtaining a number of permissions was a necessary step prior to beginning the study. As shown in Appendix IV, the Dean of the School of Business and Economics at Masinde Muliro University of Science and Technology sent a letter of support for the candidate. Appendix V contains documentation about the acquisition of a research permit from the National Commission of Science and Technology, also known by its acronym NACOSTI.

The go-ahead to proceed with the research was given by the appropriate authorities at the selected public TVET Institutions in the Western area of Kenya, which made it possible to carry it out without any problems. Ethical standards were adhered to in an unwavering manner. The participants' privacy and dignity were treated with the utmost respect and every precaution was taken to ensure this. The origins of the personal information that was collected were kept confidential. In addition, the standards of intellectual property were adhered to very strictly and all of the information sources as well as the creators of the material were appropriately acknowledged. Scientific misconduct, which encompasses a broad variety of unethical behaviors such as plagiarism, data fabrication or falsification and dishonest authorship, was expertly avoided by taking the necessary precautions.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

The researcher conducted an in-depth investigation of the data, providing interpretations of the results, and expanding on findings from the study. The effect that independence of internal audit has on the effectiveness of the internal audit in Public TVET Institutions in Western Kenya is going to be the primary focus of this discussion. In order to collect the necessary information, a questionnaire specifically designed for the professionals working at various educational institutions was sent to them. After being collected, the information went through a coding procedure, and then it was analyzed carefully. Descriptive and inferential statistical methods were employed in order to decipher the relevance of the data in respect to the study objectives and questions that were posed. As a direct result of this, the results have been clarified with the use of frequency tables and the implications contained therein have been carefully analyzed. In addition, multiple regression analysis emerged as the technique of choice when it came time to evaluate the extent of the connection between the variables that were determined to be independent and dependent. The validity and reliability of the study results may be ensured by using this exhaustive framework for analysis.

4.2 Descriptive Data Analysis

This section includes a variety of crucial pieces of information inside its confines. First, it provides information about the response rate, which allows one to evaluate the amount of participation in the research as well as its level of representativeness. The demographic profile of the respondents is next discussed, which provides a more nuanced view of who the participants are. In particular, this section displays the computed means and standard deviations obtained from the input provided by the respondents, and they are shown for both the independent and the dependent variables. The aim of this quantitative summary is to provide an encompassing picture of how the independence of internal audit affects the effectiveness of internal audit in public TVET Institutions in the Western region of Kenya. Therefore, the data that is offered here serves not only as a statistical background, but rather as a full foundation upon which the remainder of the study results depend, making it possible to have an all-encompassing comprehension of the topic at hand.

4.2.1 Response Rate

Table 4.1: Response Rate

Sample Size	Number	Percentage (%)
Total sample size	89	100
Total responses	85	95.5
Un-utilized	4	4.5
Total utilized responses	85	95.5

Source: Field Data (2023)

During the course of this research, 89 questionnaires were sent out to a pre-determined participant pool that was selected from a broader assembly of 116 individuals. Incredibly, 85 of them were returned in perfect condition and with all of the questions answered, exhibiting a response rate of 95.5%. When compared to previously established academic standards, this number takes on a new level of importance, which becomes clearer as a result. According to Champion and Sear (2009), a rate that is anywhere between 49% and 59% is sufficient. In addition to that, a rate that falls within the range of 59% to 69% is considered to be "good." Any rate that is higher than 69% is considered to be in the "very high" category since it exceeds these norms. Therefore, the response rate of 95.5% that was reached in this research justifies the robustness and representativeness of the data that was acquired.

4.2.3 Demographic Characteristics

This study focused on the various features of the respondents to get a deeper and more nuanced knowledge. In particular, it provided light on the functional composition of participants within the TVET Institutions. The study sought to investigate the academic and professional accreditations that were held by each participant. The research proceeded to go further and made it a point to uncover the amount of experience that had been accumulated by the respondents in the TVET environments. Each of these factors, whether it is functional duties, credentials, or tenure, opens up additional levels of comprehension. By using them, the research sought to present a more complete picture of who precisely is contributing to the intricate mechanisms of effective and independent internal audit function in the public TVET Institutions in Western, Kenya.

4.2.3.1 Functional Composition of Respondents

The functional framework of the eighty-five participants working in the Public TVET Institutions in Western region is as shown in table 4.2 below.

Table 4.2: Functional Composition of Respondents

Functional Composition of Respondents	Frequency (n)	Percentage (%)
Internal Auditors	12	14.12
Audit Committee	34	40
Senior Management	39	45.88
Total	**85**	**100**

Source: Field Data (2023)

The respondents in the Public TVET Institutions in Western region comprised of 12 Internal auditors (14.12 % of the respondents), 34 Audit committee members (40% of the respondents) and 39 senior level managers (45.88% of the respondents). The functional composition of the participants showed that they had a better understanding of how internal audit independence affects auditor's effectiveness in the Public TVET Institutions in western region, Kenya.

4.2.3.2 Professional Qualification

The professional qualification of the respondents in public TVET Institutions in Western region is as shown below:

Table 4.3: Professional Qualification

Professional Qualification	**Frequency (n)**	**Percentage (%)**
CPA	42	49.41
CIFA	9	10.59
CIA	3	3.53
ACCA	1	1.18
Other	30	35.29
Total	**85**	**100**

Source: Field Data (2023)

The research led to the collection of enlightening data regarding the educational history of respondents in public TVET institutions in Western Kenya. To be more specific, 49.41% of them had CPA certifications, which is a sign that they had a significant amount of competence in accounting. On the other hand, 10.59 percent of respondents had CIFA professional qualifications, 3.5 percent of respondents possessed CIA credentials, and only 1.1 percent of respondents were ACCA certified. Other professional qualifications were used to categorize the remaining 35.29 percent of candidates' credentials.

It is therefore reasonable to deduce that the majority of the internal auditors and finance managers working in these Public TVET Institutions have CPA certifications. The members of the audit committee and top-level managers, who accounted for 35.29 percent of the total participants, displayed a diverse mix of professional qualifications. As a consequence of this, the demographic mosaic suggests that there is a collectively acceptable knowledge concerning the independence and effectiveness of internal audit unit which substantiates the legitimacy of the study's eventual conclusions.

4.2.3.3 Level of Work Experience

Investigating how long respondents had been employed by the TVET institutions served a strategic purpose to the study. Longevity confers relevance; extended exposure often results in the development of a better understanding of the independence and effectiveness of internal audit. In addition, the length of time they've been with the institution may equip them with the experience and knowledge necessary to understand that the internal audit function with regard to independence and effectiveness.

Table 4.4: Level of Work Experience

Level of Work Experience	**Frequency (n)**	**Percentage (%)**
1-3 years	12	14.12
3-5 years	24	28.24
5-8 years	17	20
Over 8 years	32	37.65
Total	**85**	**100**

Source: Field Data (2023)

As per the statistics shown in Table 4.4, a significant percentage of the respondents, totaling 37.65%, have worked in TVET Institutions for more than eight years. As a result of the fact that the majority of the participants, more precisely more than fifty percent of them, have devoted more than five years to these institutions, it is possible to deduce that they have considerable insights concerning the internal audit unit. For that reason, their assessments about the independence and effectiveness of the internal audit in the TVET framework have a significant amount of weight and trust.

4.3 Descriptive Statistics of The Study Variables

For the purpose of providing an overview of the relationship between the independence of internal audit and the effectiveness of internal audit in Public TVET Institutions in Western Kenya, mean values and standard deviations were determined for both the independent and dependent constructs. The goal of these computations was to provide light on the correlations between the variables, which is directly connected with the goals of the research. The questions that were chosen to be included in the survey were congruent with the objectives of the study. A Likert Scale with five points was used to evaluate the replies of the participants. According to this scale, a score of 1 indicated "Strongly Disagree," a score of 2 corresponds to "Disagree," a score of 3 corresponds to "Neutral," a score of 4 represents "Agree," and a score of 5 indicates "Strongly Agree."

4.3.1 Scope of Audit Work

Table 4.5: Statistics of The Scope of Audit Work

	Mean	Std. Deviation
The Internal Auditor has freedom to determine the extent of audit work	4.0941	.66590
The extent of audit work is determined by senior management	1.8118	.77910
The extent of audit procedures used during auditing is wholly determined by the internal auditor	4.0824	.71066
Internal auditor is allowed to include significant findings in their reports without interference from senior management	3.6941	.85945
Internal auditor has the power to determine the period an audit will take	4.0824	.71066

Source: Field Data (2023)

The first objective was to establish whether scope of work had an effect on the effectiveness of internal audit in public TVET institutions located in Western, Kenya.

The outcome in Table 4.5 suggest that the respondents established that the internal auditors in these institutions have a large amount of freedom to determine the scope of their audit work (Mean = 4.0941, SD = 0.66590). The fact that the standard deviation is so low gives rise to the conclusion that respondents are generally in agreement about this matter. These results correspond to those of a prior study conducted by Kimotho (2014), who postulated that a broad range of responsibilities for auditors promotes both effectiveness and efficiency inside businesses. This viewpoint is also underpinned by Mihret et al. (2010), who stated that the efficiency of internal auditing is improved when auditors are given the authority to choose the scope of their job without interference from outside parties. On the other hand, the outcomes of the research demonstrated that senior management did not substantially impact the amount of audit work (Mean = 1.8118, SD = 0.77910). This was shown by comparing the mean to the standard deviation. This low amount of variance suggests that the vast majority of participants agreed that top management did not influence audit scope. This result is consistent with the findings that were derived by Ngugi (2020), who determined in his research that there is a little amount of management influence on the activities performed by auditors in the government sector in Kenya.

Findings of the study found that the internal auditor is the only person authorized to design the audit methods that are used during an internal audit (Mean = 4.0824, SD = 0.71066). It is reasonable to assume, taking into account the relatively little divergence, that a major part of participants concurs with this argument. Respondents' mixed feelings about the latitude internal auditors are given to include notable findings in their reports without interference from management is another significant result that stands out as a major feature of the research (Mean = 3.6941, SD= 0.85945), showing that respondents were not generally in agreement with the finding. These results reflect the thoughts that were stated by Ebissa (2015), who outlined that the effectiveness of an internal auditor is actually magnified when they are allowed to incorporate key discoveries in their reports. Finally, it was discovered that internal auditors are in charge of maintaining control over the amount of time that an audit is expected to take (Mean = 4.0824, SD = 0.71066). The fact that this divergence is so little lends credence to the widespread belief that internal auditors have the authority to establish the schedule for audits.

4.3.2 Access to Audit Evidence

Table 4.6: Statistics of Access to Audit Evidence

	Mean	**Std. Deviation**
Internal auditor has full access to records and information	3.8824	.82248

required during audit		
Internal auditor is restricted to items normally checked by external auditors only	1.7529	.65294
Internal auditor receives full cooperation from auditees during audit exercise.	3.7176	.81082
The internal auditor has complete access to senior level managers when conducting management audit	3.6706	.87815
Internal auditor has free access to all departmental employees in the institution	3.9882	.71538

Source: Field Data (2023)

Secondly, the study aimed to investigate the effect access to audit evidence has on the effectiveness of the internal audit in Public TVET Institutions in Western, Kenya.

As shown in Table 4.6, respondents expressed a neutral position towards the issue of internal auditors having unfettered access to documents that are essential for the audit (Mean =3.8824, SD =.82248). This significant difference suggests that respondents did not have a generally neutral attitude about the ease with which internal auditors might access the necessary documents. This conclusion is consistent with the ideas presented by Maina (2014), who hypothesized that obstacles in gaining access to vital documents may fairly likely compromise the independence of internal auditors. Alzeban and Sawan (2013) provide further support for this notion by highlighting the fact that audit independence becomes perceptible when auditors have unrestricted access to both important documents and conversations with staff.

Internal auditors in these educational institutions are not restricted to examining just those aspects that are typically reviewed by their external counterparts (Mean = 1.7529, SD =

0.65294). The insignificant deviation alludes that the study participants agreed with the finding. Internal auditors in these public TVET Institutions fairly receive full cooperation from auditees during audit assignments (M=3.7176, SD-=0.81082). A strikingly disparate set of viewpoints is shown by the significant deviation value. The respondents' responses about the ease with which internal auditors may approach senior managerial employees during a management audit indicated (M=3.6706, SD=0.87815). Based on the significant deviation, participants were ambivalent about whether or not internal auditors can readily access senior management. According to the research of academics such as Delai and Omri (2016) and Dittenhofer (2011), it is essential for the effectiveness of the internal audit unit to have unrestrained accessibility to the higher echelons of management. Their perspectives lend credence to the view that the likelihood of audits producing useful insights and changes is proportional to the degree to which high-ranking officials may be reached via more direct channels.

The findings indicated that auditors had unrestrained access to the institution's departmental staff (M=3.9882, SD=0.71538). The fact that the variation was minimal suggests that the respondents were conclusive about the issue of internal auditors having unrestrained accessibility to all of the institution's departmental staff. The findings are backed by Internal Audit Guidelines for National Government Entities (2016), which indicate that the internal auditor shall obtain direct and rapid access to records, officials, or personnel holding any position in the organization. These guidelines specify that the internal auditor shall have access to all records, officials, or employees holding any position in the entity.

4.3.3 Level of Reporting

Table 4.7: Statistics of Level of Reporting

	Mean	Std. Deviation
The institution has an audit committee that is properly	3.7529	.93740

constituted as per the statutes		
The Internal Auditor reports audit findings to the management before reporting to the audit committee	2.3765	1.23420
Internal Auditor reports audit findings directly to Audit Committee	3.8118	1.19018
The internal auditor reports administratively to the senior level management	4.6000	.58146

Source: Field Data (2023)

Table 4.7 provides conflicting views with regard to the third study aim, which focuses on the effect of level of reporting on internal audit effectiveness. In particular, respondents did not have strong opinions about the question of whether the audit committees in these public TVET institutions are properly formed in accordance with the statutory criteria (Mean = 3.7529, SD = 0.93740). The fact that there is such a notable difference in opinion amongst the respondents brings this to light. The survey also revealed that internal auditors do not often communicate their findings to management bodies prior to contacting the audit committees (Mean = 2.3765, SD = 1.23420). Based on the significant variance, this finding gave the impression that there was no complete consensus among participants about this matter. These results are echoed by Delai et al. (2016), who postulate that in order to cultivate the ideal environment for successful internal auditing, it is vital for auditors to report functionally to audit committees while still keeping an administrative line to top management. Lawrence (2013) elaborates on this by stating that the emphasis of reporting has shifted from top organization executives to audit committees in organizations where the internal audit function is regarded in high respect.

The study sheds light on a number of delicate factors pertaining to the question of who internal auditors report to. According to the data shown in Table 4.7, there was a degree of neutrality that was somewhere in the middle of the spectrum regarding the concept of internal auditors reporting directly to the Audit Committee (Mean = 3.8118, SD = 1.19018). This significant variation demonstrates that participants had a variety of points of view. ISPPIA Standard 1100 (2017), which provides corroborating evidence for these findings, postulates that the best structure for internal audit functioning needs the head of internal audit unit to report to an organizational level that makes it possible for the audit function to successfully undertake its functions.

Lastly, it was revealed that internal auditors often report administratively to high-ranking management (Mean = 4.6000, SD = 0.58146). The fact that there was just a little amount of variation in the responses indicates that a major part of the participants was in agreement with the result. This is further supported by PFM (2012), which indicates that the internal auditor should report administratively to the Accounting Officer and functionally to the audit committee.

4.3.4 Provision of Non-Audit Services

Table 4.8: Statistics of Provision of Non-Audit Services

	Mean	**Std. Deviation**
Internal auditor offers advisory services to the senior level management	3.4824	.94632
Internal auditor offers tax consulting services to the Finance office in the institution	1.3529	.57125
Internal auditor implements internal controls in the institution on behalf of management	1.2941	.61380
Internal auditor tenure has been more than three years	4.1176	1.01667

Source: Field Data (2023)

Data in Table 4.8 may be interpreted in a way that gives significant insights into the effect of provision of non-audit on effectiveness of internal audit in public TVET Institutions in Western, Kenya.

Neutrality is indicated on the offering of advisory services to senior management by internal auditors (Mean= 3.4824, SD = 0.94632). This significant disparity in responses indicates that respondents have a variety of viewpoints and provides some indication that the topic is not yet resolved. A low mean value of 1.3529, supported by a moderate standard deviation of 0.57125, demonstrates a strong collective opinion against the idea that internal auditors offer tax consulting services to the finance office. The fact that the statistics are so tightly clustered together lends credence to the hypothesis that the vast majority of respondents did not support the finding. These results are given credibility by Schneider and Hutt (2018), who imply that when internal auditors participate in consultative roles, a compromise in their independence might be a serious risk. They state that if such services are going to be delivered, then the assurance services have to have a limited scope, particularly when they correspond closely with the consulting activities that are going to be carried out.

The subject of whether internal auditors implement internal controls on behalf of management, a (Mean= 1.2941, SD = 0.61380) indicate that respondents are in agreement that these auditors do not implement the controls on behalf of managers. The Basel Committee (2012) agrees with this point of view and recommends that auditors keep a professional distance from non-audit responsibilities such as the establishment of internal controls.

Moving gears to auditor tenure, the findings clearly demonstrated that the internal auditor's tenure has been more than three years in these public TVET Institutions (Mean = 4.1176, SD = 1.01667). This considerable variance implies that there is not widespread agreement with this finding by the study participants. According to Yazan et al. (2022), longer tenure may result in more difficult engagements owing to the connection that develops over time between the customer and the auditor. They contend that this might put the integrity of the audit at risk. However, not everyone shares this point of view. For example, Nurhayati and Prastiti (2019) disprove the hypothesis that the duration of an auditor's employment has a significant bearing on the quality of their audits.

4.3.5 Internal Audit Effectiveness

Table 4.9: Statistics of Internal Audit Effectiveness

	Mean	Std. Deviation
The number of risks identified by the internal audit department for the past four years	3.6118	1.00112
The number of risk management strategies developed over the past four years	1.8118	.96971
The number of Internal control weaknesses detected by the internal auditor for the past four years	3.6588	1.02994
Number of Internal controls developed by the institution for the past four years	1.8000	1.02120
The number of governance policies developed by the TVET institution over the past four years	2.4000	1.02586

Source: Field Data (2023)

In the process of drawing conclusions from table 4.9, one fact that stands out is the number of risks that have been detected by internal auditors throughout the course of a period of four years ranged from 21-30 (M=3.6118, SD=1.00112). There is a large amount of diversity among responses considering the significant deviation. They did not all agree for one reason or another that the detected risks ranged between 21-30. This variation lends credence to the results of Odoyo et al. (2014), who contend that strong audit functions often lead to proficient risk management strategies.

The number of risk management methods that have been developed in the last four years range from 0-10 (Mean = 1.8118, SD = 0.96971), which uncovered the notable deviation that not all participants concurred with the finding. The fact that respondents' opinions were split adds a layer of complexity to the academic discussion and highlights how substantial it is to have an effective internal audit function in place so as to strengthen risk management.

Shifting the focus to internal control weaknesses detected by the internal auditors for the past four years, the weaknesses ranged from 21-30 (M=3.6588, SD=1.02994). The viewpoints of the respondents varied due to the significant deviation yielded. In a similar approach, the establishment of internal controls by the institutions, with a range of 0-10 was met with a variety of responses due to the significant variance achieved (Mean = 1.8000, SD = 1.02120). This difference in opinion lends credence to the viewpoints expressed by Unegbu and Kida (2011), who contend that internal audit unit has to play a crucial function in analyzing financial processes and providing recommendations for improvements. The significance of a robust internal audit system as a vehicle for enhancing organizational performance and bolstering internal controls cannot be overstated, in particular with regard to public institutions and agencies. This finding is in line with the thoughts that Vijayakumar and Nagaraja (2012) had to say about the matter. As a result, it is feasible, if not likely, that there is a synergy between effective internal audit and the success of the company.

Taking into consideration the facts connected to the formation of governance policies within the Public TVET Institutions over the course of the last four years, the study found that number of governance policies developed ranged from 11-20 (Mean = 2.4000, SD = 1.02586). There is a significant amount of variation among respondents which suggests that there is no consensus relating to the governance policies developed. This conclusion fits in well with the scientific contributions that Yee et al. (2008) made, which emphasize the essential task that internal audit plays in bolstering an organization's adherence to rules and process improvement.

Bananuka et al. (2018) provide an additional layer of credibility by supporting the inherent advantages that come with having a flourishing internal audit process. Their remark lends credence to the theory that businesses intent on incessantly adopting this function often exhibit improved governance frameworks and standards. In essence, these measures not only promote compliance but also often open the way for the enhancement of value and the refining of operational procedures. Therefore, although the substantial variation among respondents does somewhat muddy the waters, the larger academic discourse corresponds with the assumption that successful internal audits are inherently related with strong governance models. There seems to be a real possibility for businesses to grow more robust policy scaffolding by placing it under the umbrella of an effective internal audit department.

4.4.1 Normality Test

The legitimacy of study findings is unquestionably supported by the use of rigorous statistical methods. In their 2016 article, Saunders et al. express the relevance of normal data distribution as a cornerstone assumption in statistical analysis. The key work of Pearson (1905) on skewness and kurtosis serves as a basic lens, and Mabele (2019) has validated it. During the course of the research project, skewness and kurtosis were analyzed bearing in mind certain limiting parameters, namely, values ranging from minus 2.0 to plus 2.0. This range, which is generally accepted as a standard benchmark for normalcy, is designed to elucidate the fundamental aspects of data distribution. A significant departure from these limitations will often cause warning signals to be triggered, bringing to light the existence of possible biases or anomalies that may taint the findings or interpretations. In light of this, the research strengthens its methodological credibility by sticking to these tried-and-true statistical benchmarks.

Table 4.10: Normality Test

	Skewness		**Kurtosis**	
	Statistic	**Std. Error**	**Statistic**	**Std. Error**
Scope of audit work	-.270	.261	1.363	.517
Access to audit evidence	-.383	.261	-.154	.517
Level of reporting	.848	.261	2.437	.517
Provision of non-audit services	-.098	.261	.172	.517
Internal audit effectiveness	.410	.261	-.530	.517

Source: Field Data (2023)

In light of the statistical findings shown in Table 4.10, it is clear that skewness and kurtosis values of all the investigated variables are contained within the boundaries of -2 and 2, respectively. To be more specific, the skewness of scope of work is -0.270, while the kurtosis is 1.363. Concurrently, the skewness of access to audit evidence can be shown to be -0.383, and the kurtosis can be seen to be -0.154. In addition, the level of reporting exhibits skewness values of 0.848 and kurtosis values of 2.437, respectively. The same can be said for provision of non-audit services, which exhibits a skewness of -0.098 and a kurtosis of 0.172. In conclusion, the skewness of the effectiveness of the internal audit is 0.410, whereas the kurtosis is -0.530. In light of these numerical parameters, one might reasonably draw the conclusion with full assurance that the normalcy assumption is confirmed with regard to all of the variables in issue.

Therefore, these statistical measures are consistent with the conventional cut-off points that are used for determining whether or not data distributions are normal. This result lends credence to the study's methodology and makes it possible to derive from the analysis judgments that are more trustworthy.

4.4.2 Linearity Test

T-test was employed in this study to investigate possible linear correlations that may exist between a number of independent factors and a single dependent variable. This was done in accordance with the methodological criteria that were proposed by Jepkoech (2021). To be more explicit, the primary factors of interest in this case were the scope of work, access to audit evidence, level of reporting and provision of non-audit services. The effectiveness of internal audit was the dependent variable that was investigated for this study.

The presence of a linearly dependent connection between the independent and dependent variable would be supported by a substantial divergence from linearity that was more than 0.05. On the other hand, any claim that there is a linear connection between those variables would be invalidated if there was a substantial divergence from linearity of less than 0.05.

Table 4.11: Linearity Test

	Sum of squares	df	Mean square	F	Sig.

Internal audit	Between	(Combined)	388.366	9	43.152	3.243	.002
effectiveness*	Groups	Linearity	338.745	1	338.745	25.486	<.001
Internal audit		Deviation from	49.622	8	6.203	.467	.876
independence		Linearity	996.857	75	13.291		
	Within		84				
	Groups	1385.224					
	Total						

Source: Field Data (2023)

Examining the facts that are noted in Table 4.11 reveals that the significant deviation from linearity reaches a noteworthy value of 0.876. The fact that this number is more than 0.05 adds credibility to the hypothesis that there is a linear connection between internal audit independence and internal audit effectiveness.

4.4.3 Homoscedastic Test

The use of the Levene test, which was first proposed by Howard Levene in 1960 and was subsequently explored by Mabele (2019), serves the purpose of determining whether or not the research variables exhibit homoscedasticity. This method especially targets four independent variables in Public TVET Institutions in the Western, Kenya: the scope of audit work, access to audit evidence, level of reporting, and provision of non-audit services. The p-values that were generated as a consequence of this study act as crucial indications of whether or not the variance is the same across these variables. According to the criteria that were developed by Garson (2012), p-values that are less than 0.5 are indicative of homoscedasticity, which means that the variances are all around the same, and p-values that are more than 0.5 indicate a heteroscedastic condition, which requires further inquiry to resolve the variance discrepancy. In order to facilitate a complete understanding and subsequent interpretation, the analytical results of this exhaustive test have been appropriately consolidated and are displayed in table 4:12.

Table 4.12: Homoscedastic Test

	Levene Statistic	**df1**	**df2**	**Sig.**
Scope of audit work	1.113	15	67	.363
Access to audit evidence	1.257	15	67	.254
Level of reporting	2.090	15	67	.021
Provision of non-audit services	1.262	15	67	.251

Source: Field Data (2023)

When drawing conclusions from table 4.12, it becomes clear that the p-values associated with the four independent variables that are being analyzed present convincing evidence of homoscedasticity. This realization occurs as a result of the analysis of the table. In particular, the p-values came out to be as follows: 0.363 for the scope of audit work, 0.254 for access to audit evidence, 0.021 for level of reporting and 0.251 for the provision of non-audit services. Given that each of these p-values clearly falls below the threshold of 0.5 as specified by Garson (2012), we have enough evidence to support the premise that the variances associated with these variables are, for the most part, comparable to one another. As a result, it is reasonable to assume that the data utilized in this investigational attempt are unbound from the possibility of heteroscedasticity.

4.4.4 Multicollinearity Test

To determine whether or not there is multi-collinearity, one must carefully study the Variance Inflation Factors (VIF) shown in Table 4.13 for each independent variable. The study that Cooper and Schindler did in 2011 outlines the consequences of VIF values in concise manner. To be more specific, VIF values that are contained within the range of 1 to 10 are indicative of the lack of multi-collinearity, which is a statistical phenomenon that occurs when independent variables have an excessive connection with each other. Due to the high degree of correlation between the variables, distortion may be introduced into the regression models, making it difficult to understand the coefficients.

On the other hand, if the values of the VIF begin to deviate from this interval by being either less than 1 or more than 10, it would seem that the data are beginning to display evidence of multi-collinearity. The implications of such a situation would thus unavoidably generate a more complicated and probably incorrect interpretation of the regression coefficients.

Table 4.13: Multicollinearity Test

	Collinearity Statistics	
Model	**Tolerance**	**VIF**
Scope of work	.648	1.543
Access to audit evidence	.574	1.742
Level of reporting	.585	1.709
Provision of non-audit services	.683	1.464

Field Data (2023)

Analysis of the revealed values for the VIF provide confidence that there is no multi-collinearity among these independent constructs. The results are as follows: 1.543 for the scope of audit work; 1.742 for access to audit evidence; 1.709 for the level of reporting and lastly, 1.464 for the provision of non-audit services. Each result fits neatly within the parameter range of 1-10 that Cooper and Schindler (2011) mentions as indicative of the lack of multi-collinearity.

This result lends credence to the trustworthiness of the regression model used to this investigation. Because these variables are independent of one another, it is much easier to provide a strong and clear interpretation of their individual contributions to the dependent variable, which is the effectiveness of internal audit.

4.5 Results of Hypothesis Testing

The utilization of regression analysis allowed for the extraction of a large number of variables, including R (the coefficient of correlation), R square (the coefficient of determination), as well as P-values, B coefficients, and F statistics. The link between the internal audit independence and internal audit effectiveness in public TVET institutions in Western, Kenya is examined from the viewpoint of these factors, each of which brings a distinct perspective. The research relies on the p- values to test its hypothesis in accordance with the analytical framework that was suggested by (Carolyne et al., 2020). If P-value is significant, the null hypothesis will be rejected, which will confirm that internal audit independence has significant effect on internal audit effectiveness. On the other hand, if P-value is not significant, the research will fail to reject the null hypothesis.

4.5.1 Effect of Scope of Audit Work on Internal Audit Effectiveness

Regression analysis was the key to unlocking the mysteries surrounding the connection between scope of audit work and internal audit effectiveness. Table 4.13 presents a tidily tabulated summary of its findings.

Table 4.13: Model Summary and ANOVA for Scope of audit work

					Change Statistics			
Model	**R**	**R^2**	**Adj R^2**	**St. Error of the estimate**	**R^2 Change**	**F Change**	**df**	**Sig. F Change**
1	.427[a]	.182	.172	3.69496	.182	18.461	1,83	<.001

a. Predictors: (Constant), scope of audit work

b. Dependent variable: Internal audit effectiveness

Source: Field Data (2023)

When Table 4.13 is analyzed, it becomes clear that a moderately positive correlation exists between scope of audit work and the effectiveness of internal audit in Public TVET Institutions in the Western region, Kenya, as shown by R value of 0.427[a] and a P-value that is less than 0.001. In addition, the R^2 value of 0.182 reveals that about 18.2% of the variability in the internal audit effectiveness is related to scope of audit work. Furthermore, a P< .001 demonstrates that this connection is statistically significant. The F-statistic also shows strong evidence for the model's ability in accounting for variations in the dependent variable. The goodness of fit of the model is supported by the F test, which yields a value of (1, 83) = 18.461 and a P< .001. This firmly establishes scope of audit work as an essential component in determining effectiveness of internal audit.

Table 4.14: Regression Co-Efficient for Scope of Audit Work

	Unstandardized Coefficients		**Standardized Coefficients**		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
1 (Constant)	-.903	3.326		-.272	.787
Scope of audit work	.799	.186	.427	4.297	<.001

a. Dependent variable: Internal audit effectiveness

Source: Field Data (2023)

Analysis on the data presented in Table 4.14 reveals that the unstandardized regression coefficient (β) for the scope of audit work is 0.799, with a significance level of p < .001. Based on these findings, it seems that every single unit change in scope of audit work would be related to a variation in the effectiveness of internal audit of around 0.799 units. To explain this connection using arithmetic, the regression equation was expressed as:

$$\mathbf{Y= -0.903 + 0.799X_1 + e; \text{ where } X_1= \text{Scope of audit work}}$$

The t-statistic is 4.297, and the $p< .001$ which is much lower than the significance level of 0.05. It is therefore evident that scope of audit work has significant positive effect on internal audit effectiveness of Public TVET Institutions in western region, Kenya. Therefore at 5% level of significance the null hypothesis was rejected and the alternative hypothesis failed to be rejected indicating that; $H_{A1:}$ *Scope of work of internal auditors has significant effect on internal audit effectiveness in Public TVET Institutions in Western region.* Therefore, it is possible to reach the conclusion that the independence of the internal audit function is strengthened when there are no constraints placed on the range or scope of an auditor's activity. This autonomy, in turn, boosts the effectiveness of internal audit unit in the institution, which is an essential piece of knowledge for Public TVET Institutions located in the Western region of Kenya.

The Agency Theory, which was first proposed by Meckling and Jensen in 1976, serves as the major theoretical framework for clarifying the connection between the scope of audit work and internal audit effectiveness. This connection refers to the relationship that exists between the two factors. The theory dives into the idea of knowledge asymmetry between shareholders and management, as described by (Omid & Davood, 2021). In this dynamic, shareholders often do not have access to critical facts, which is why it is necessary for internal auditors to conduct stringent monitoring of the activities taken by management personnel. It is important that the internal auditors' scope of work is not limited in any way, as this will allow them to examine all aspects of the organization's operations and provide confidence to those who have an interest in the enterprise.

In addition, the results of empirical study provide their contribution to this framework. The findings of the research by Magero (2019) verify the beneficial and significant impact that the auditor's scope of work has on the effectiveness of the internal audit function. Nyaga et al. (2018) expounded on scope of audit work as a critical aspect in ascertaining the effectiveness of internal audits. The findings of Ebisu (2015) take this a step further and argue that unrestricted flexibility to choose the degree scope of audit work is required in order to improve the effectiveness of internal audit.

However, this mash-up of points of view does not come without its share of inconsistencies. A conflicting note is put forward by Shamki and Alhajri (2017), who contend that the scope of audit activity does not demonstrate a statistically significant association with the effectiveness of internal audits. This disparity implies that even though the predominant narrative favors an extensive scope as a means of enhancing audit effectiveness, there are some outliers that should be given some thought.

4.5.2 Effect of Access to Audit Evidence on Internal Audit Effectiveness

Regression analysis was done to determine the effect of access to audit evidence on internal audit effectiveness in Public TVET Institutions in western region, Kenya as noted in Table 4.15.

Table 4.15: Model Summary and ANOVA for Access to audit evidence

					Change Statistics			
Model	**R**	**R^2**	**Adj R^2**	**St. Error of the estimate**	**R^2 Change**	**F Change**	**df**	**Sig. F Change**
1	.390[a]	.152	.142	3.76243	.152	14.855	1,83	<.001

a. Predictors: (Constant), Access to audit evidence

b. Dependent variable: Internal audit effectiveness

Source: Field Data (2023)

Access to audit evidence and internal audit effectiveness are shown to have a moderate relationship in these Public TVET Institutions in the Western region, Kenya, as indicated ($R=0.390^a$, $p<0.001$). Access to audit evidence is responsible for about 15.2% of variations in the internal audit effectiveness as shown by R^2 value (0.152). This is essential in emphasizing how essential unrestricted access to audit information is to the process of developing a more effective audit function. The F-statistic has a value of (1,83) = 14.855 and P<0.001. This provides strong support for the model's capability of illuminating variations in the dependent variable, which in this case is the internal audit effectiveness.

Table 4.16: Regression Co-Efficient for Access to Audit Evidence

	Unstandardized Coefficients		**Standardized Coefficients**		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
1 (Constant)	2.433	2.844		.855	.395
Access to Audit Evidence	.638	.165	.390	3.854	<.001

a. Dependent variable: Internal audit effectiveness

Source: Field Data (2023)

In table 4.16, access to audit evidence was shown to have an unstandardized regression coefficient (β) of 0.638, with a P< 0.001. This suggests that there is a proportional change in the internal audit effectiveness by 0.638 for every single unit change that happens in the independent variable known as access to audit evidence. It is clear that the association is not a result of random chance but rather has statistical significance. The equation for the regression was expressed as follows:

$Y = 2.433 + 0.638X_2 + e$; where X_2= Access to audit evidence

It is therefore apparent that access to audit evidence has significant positive effect on internal audit effectiveness of Public TVET Institutions in western region, Kenya with a t-statistic of 3.854 and $P<0.001$ which is much lower than the significance level of 0.05. Therefore at 5% level of significance the null hypothesis was rejected and the alternative hypothesis failed to be rejected indicating that.; H_{A2} *Access to audit evidence has significant effect on internal audit effectiveness in Public TVET Institutions in Western region.* The importance of access to audit evidence as a significant driver of the effectiveness of internal auditing is proven within the context of Public TVET Institutions in the western area of Kenya.

The theory of agency developed by Meckling and Jensen (1976) and Limperg's theory of inspired confidence (1932), as articulated by Kiema (2015), can be combined to form a powerful framework for the interpretation of the observed association between access to audit evidence and internal audit effectiveness. Both theories are strengthened by each other in a variety of ways. While this theory aims at overcoming information disparity between shareholders and management, the theory of inspired confidence concentrates on the assurance that an internal auditor's findings should give to stakeholders. The ability of an internal auditor to have unrestricted access to a wide variety of resources, whether they are documents, persons, or management insights, is the fundamental component that supports the function. Because of this access, the auditor is able to construct audits that accurately represent the performance and integrity of the company, which ultimately expedites effectiveness of the internal audit.

Delai and Omri (2016) provide more support for these theoretical foundations. Their study demonstrates how limiting access to diverse aspects of an organization might make it more difficult for an auditor to maintain their independence. Al-Akra et al. (2016) echoes this sentiment, stating that having access to vital information is a crucial component of an effective internal audit role in public organizations. The data that Kiema (2015) uncovered provide even more support to this argument by highlighting the ways in which this access not only ensures effective audits but also increases organizational value and profitability. The capacity to easily access crucial audit evidence plays a big part, not only in the effectiveness of the audit, but also in assuaging the worries of stakeholders and encouraging organizational excellence.

4.5.3 Effect of Level of Reporting on Internal Audit Effectiveness

A regression analysis was carried out to establish the effect that level of reporting has on internal audit effectiveness in Public TVET Institutions in the Western region of Kenya. Table 4.17 detailed the presentation of the findings.

Table 4.17: Model Summary and ANOVA for Level of reporting

					Change Statistics			
Model	**R**	**R^2**	**Adj R^2**	**St. Error of the estimate**	**R^2 Change**	**F Change**	**df**	**Sig. F Change**
1	.394[a]	.155	.145	3.75455	.155	15.266	1,83	<.001

a. Predictors: (Constant), Level of reporting

b. Dependent variable: Internal audit effectiveness

Source: Field Data (2023)

As shown in Table 4.17, there is a considerable relationship between level of reporting and internal audit effectiveness, notably in Public TVET Institutions in Western Kenya with the R value being 0.394[a] and the P< 0.001. Based on these numerical estimates, it is evident that implementing a reporting structure that is both more organized and transparent may significantly boost audit effectiveness. When combined with a significance threshold, level of reporting is responsible for 15.5% of variations in the internal audit effectiveness (R^2=0.155). The robustness of the hypothesis is further supported by evidence from the F statistic. With a level of (1, 83) = 15.266 and a remarkable P<0.001, it is clear that the level of reporting acts as an essential determinant of internal audit effectiveness.

Table 4.18: Regression Co-Efficient for Level of Reporting

	Unstandardized Coefficients		**Standardized Coefficients**		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
1 (Constant)	-7.50	3.614		-.207	.836
Level of Reporting	.965	.247	.394	3.907	<.001

a. Dependent variable: Internal audit effectiveness

Source: Field Data (2023)

The coefficient of unstandardized regression, which is often abbreviated as (β), comes in at 0.965 with a significance level of p<.001. Every single unit adjustment to the level of reporting may result in an rise in internal audit effectiveness by 0.965 units.

This was represented by the regression equation as:

$Y = -7.50 + 0.965X_3 + e$; where X_3= Level of reporting

It is therefore evident that level of reporting has significant positive effect on internal audit effectiveness of Public TVET Institutions in western region, Kenya with a t-statistic of 3.907

and P<0.001 which is much lower than the significance level of 0.05. Therefore at 5% level of significance the null hypothesis was rejected and the alternative hypothesis failed to be rejected indicating that: H_{A3} *Level of reporting has significant effect on internal audit effectiveness in Public TVET Institutions in Western region.*

This link between level of reporting and internal audit effectiveness gets nuanced clarity as a result of drawing on the insights provided by institutional theory, which was introduced by (Meyer & Rowan, 1977) . The idea sheds insight on the process by which organizations modify their internal structures and operations in response to the endless constraints exerted by institutions. In point of fact, these forces are responsible for the formation of a network of management controls and assurance procedures. Internal audits stand out as a crucial instrument for navigating these institutional constraints through providing assurance feedback mechanisms. When seen through this particular theoretical prism, the concept that level of reporting has a significant effect on effectiveness of internal audits is not just conceivable; it almost seems inevitable. Because of the role that they play as conduits for the flow of audit-related information, internal audit is an essential component in enhancing value addition in organizations.

Maina (2018) agrees with this finding which according to his findings, adequate reporting lines, both functional and administrative, are essential to the effectiveness of internal audits. Delai and Omri (2016) lends more credence to the hypothesis by emphasizing that in order for internal auditors to maintain a high degree of independence and, as a result, be successful, their reporting should be directed in two different directions: functionally toward the board, and administratively toward the higher echelons of management. This should be done so that the internal auditors may be effective.

4.5.4 Effect of Provision of Non-Audit Services on Internal Audit Effectiveness

A regression analysis was carried out to investigate the effect of provision of non-audit services on internal audit effectiveness in Public TVET Institutions in Western Kenya. Table 4.19 detailed the presentation of the findings.

Table 4.19: Model Summary and ANOVA for Provision of Non-Audit Services

					Change Statistics			
Model	**R**	**R^2**	**Adj R^2**	**St. Error of the estimate**	**R^2 Change**	**F Change**	**df**	**Sig. F Change**
1	.495[a]	.245	.235	3.55080	.245	26.867	1,83	<.001

a. Predictors: (Constant), Provision of non-audit services

b. Dependent variable: Internal audit effectiveness

Source: Field Data (2023)

The results indicate that a moderate but positive link can be deduced between these two variables based on the fact that the R value is 0.495[a] and the significance level between them is P<0.001 0.001. In addition, the R^2 value of 0.245 suggests that the provision of non-audit services may account for 24.5% of the variability in the internal audit effectiveness. The F-test provides an extra layer of statistical evidence for the robustness of the model with a value of (1, 83) = 26.867, P P<0.001. The F-test verifies that the model is adequate in explaining the variations in the dependent variable. This substantiates the notion that the provision of non-audit services is a reliable predictor of internal audit effectiveness.

Table 4.20: Regression Co-efficient for Provision of Non-Audit Services

	Unstandardized Coefficients		Standardized Coefficients		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**

1 (Constant)	1.715	2.265		.757	.451
Provision of Non-audit Services	1.129	.218	.495	5.183	<.001

a. Dependent variable: Internal audit effectiveness

Source: Field Data (2023)

According to statistical findings that are shown in Table 4.20, each unit change in the provision of non-audit services would result to a proportionate change in the effectiveness of internal audit of about 1.129 units (β=1.129,) and (p< .001) that is far below the threshold of 0.05. This finding suggests that internal audit effectiveness is more sensitive to changes in provision of non-audit services. Therefore, regression equation that was developed to ascertain the effect of provision of non-audit services on internal audit effectiveness was expressed as:

$Y= 1.715 + 1.129X_4 + e$; where X_4= Provision of non-audit services

Therefore, provision of non-audit services has significant positive effect on internal audit effectiveness of Public TVET Institutions in western region, Kenya with a t-statistic of 5.183 and P<0.001 which is much lower than the significance level of 0.05. Therefore at 5% level of significance the null hypothesis was rejected and the alternative hypothesis failed to be rejected indicating that: H_{A4} *Provision of non-audit services has significant effect on internal audit effectiveness in Public TVET Institutions in Western region.*

The findings lend credence to past research, in particular the work done by Kimotho (2014), who found that participation of an internal auditor in activities that are not related to auditing might, in fact, compromise their independence, which in turn makes their work less effective. This line of thinking is supported by More & Berg (2016) research, who asserts that auditors' ventures into non-audit service areas weaken their impartiality and, as a result, dilute their effectiveness. However, it is important to highlight that these findings stand in striking contrast to the hypothesis that Hay et al. (2016) developed, that provision of services that are not related to auditing does not materially compromise an auditor's independence, either in fact or in the perception of the public. As a result, the dissonance between the empirical evidences points to a complicated terrain that this study sought to establish.

4.6 Multiple Linear Regression of Internal Audit Effectiveness

Within the range of this study, the major objective was to establish the effect of internal audit independence on internal audit effectiveness in Public TVET Institutions in western region, Kenya. Notably, the researcher carefully examined the independent constructs to assess their combined effect when viewed as a single, unified block in the model. The employment of these constructs in a cohesive way made it possible to derive the study's coefficients and also made it possible to compute the R^2 value. R^2 is an important parameter because it measures how well the model explains the variation in the dependent variable, which in this case is internal audit effectiveness. Statistical tests such as the F-test and t-test were used to definitively confirm or reject the null hypotheses. As a consequence of this, the data revealed compelling insights into the relationship between internal audit independence and internal audit effectiveness as indicated in Table 4.21.

Table 4. 21: Model Summary Internal Audit Independence and Effectiveness

					Change Statistics			
Model	**R**	**R^2**	**Adj R^2**	**St. Error of the estimate**	**R^2 Change**	**F Change**	**df**	**Sig. F Change**

1	.559[a]	.313	.278	3.44936	.313	9.106	4,80	<.001

a. Predictors:(Constant), scope, access, reporting, non-audit

b. Dependent variable: Internal audit effectiveness

Source: Field Data (2023)

Notably, statistical data shown in Table 4.21, indicates a positive linear relationship between internal audit effectiveness and the four factors that serve as predictors of the dependent variable: the scope of audit work, access to audit evidence, level of reporting, and provision of non-audit services. The value of the coefficient of correlation, denoted by the letter R is 0.559 whereas the value of the coefficient of determination, denoted by the letter R^2 is 0.313. This R^2 result reveals that these four factors are responsible for an impressive 31.3% of the variances in the internal audit effectiveness hence a significant portion of the variance (68.7%) is impacted by characteristics that are not included in the model that was used for the research. The F-test consequent value of (4,80) = 9.106 provides a confirmation of the model's cability to account for fluctuations in the dependent variable. The p-value was ($p < .001$) thus this was a statistically significant result. This indicates that the independence of the internal audit acts as a helpful predictor of internal audit effectiveness at least within the context of Public TVET Institutions in western Kenya.

Table 4. 22: Coefficients of the Independent Variables and Internal audit effectiveness

a. Dependent variable: Internal audit effectiveness

Table 4. 22: Coefficients of the Independent Variables and Internal Audit Effectiveness

	Unstandardized Coefficients		**Standardized Coefficients**		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**

1 (Constant)	-6.613	2.766		-2.391	.063
Scope of audit work	.481	.215	.324	2.237	.012
Access to audit evidence	.419	.208	.320	2.014	.022
Level of reporting	.448	.211	.322	2.123	.020
Provision of non-audit services	.689	.261	.328	2.639	.002

a. Dependent variable: Internal audit effectiveness

Source: Field Data (2023)

All of the results that are shown in Table 4.22 were examined at a level of significance of 5%, and they reveal significant predictors of internal audit effectiveness carried out in Public TVET Institutions located in the Western region of Kenya. Firstly, the p-value for the scope of audit work is 0.012, which is lower than the significance criterion of 0.05 ($p=0.012< 0.05$). that was established. This indicates that the scope of audit work is a positive and significant predictor of internal audit effectiveness. Secondly, access to audit evidence is another factor that stands out as a significant predictor of effectiveness of internal audit. This is supported by a p-value of 0.022, which is lower than the significance criterion of 0.05 ($p=0.022< 0.05$). Thirdly, the level of reporting is shown to be a significant predictor of the internal audit effectiveness with a p-value of 0.020, which is once again lower than the significance criterion of 0.05 ($p=0.020< 0.05$). Lastly, provision of non-audit services is shown to be another significant predictor of internal audit effectiveness. This is shown by a p-value of 0.002, which is lower than the threshold of 0.05 ($p=0.002< 0.05$). The multiple linear regression model was built by a regression of the four predictor variables against internal audit effectiveness. The results of this regression are shown in Table 4.22:

Internal Audit Effectiveness = $-6.613 + 0.481X_1 + 0.419X_2 + 0.448X_3 + 0.689X_4 + e$

X_1= Scope of audit work
X_2= Access of audit evidence
X_3= Level of reporting
X_4= Provision of non-audit services

On the basis of the established regression equation, the level of internal audit effectiveness within Public TVET Institutions in the western region of Kenya would be -6.613, while holding all other factors constant at zero. These other factors include the scope of audit work, access to audit evidence, level of reporting and provision of non-audit services. In addition, when all other factors are held constant, an increase of one unit in the scope of audit work leads to a corresponding rise of 0.481 in internal audit effectiveness in Public TVET Institutions in the western region of Kenya. In a similar vein, an increase of one unit in access to audit evidence leads to a 0.419 rise in internal audit effectiveness in these institutions. In addition, a one-unit increase in level of reporting would cause an increase in internal audit effectiveness by 0.448 units. On the other hand, a rise of one unit in the provision of non-audit services corresponds to a 0.689 increase in internal audit effectiveness in these institutions.

Based on the findings, the scope of audit work produced a distinct and statistically significant addition to the model, as shown by the coefficient (B=0.481, p=0.012). This implies that a one-unit change in the scope of audit work leads to a significant performance change of 48.1% in the same direction when other factors are controlled for, such as access to audit evidence, level of reporting, and provision of non-audit services. Therefore, in order for public TVET Institutions in the western region of Kenya to achieve effective internal auditing, it is imperative to ensure that internal auditors are not restricted in terms of the scope of audit procedures utilized, the inclusion of critical audit findings, and the determination of the audit period.

These findings are consistent with those of previous research, such as that conducted by Mihret et al. (2010), who discovered that limitations placed on the scope of auditors working for Libyan public enterprises had a negative impact on the effectiveness and efficiency of the internal audit function, which led to an increased number of audit reports that were qualified by external auditors. In addition, Hellman (2011) suggests that the influence of senior-level management on the selection of the internal audit scope might threaten auditor independence and, as a result, hinder the effectiveness of the internal audit function.

It was also discovered that access to audit evidence provided a significant contribution to the model. This was shown by the coefficient with (B=0.419, p=.022). This implies that a one-unit change in access to audit evidence leads to a significant performance change of 41.9% in the same direction, when other factors such as the scope of audit work, level of reporting and provision of non-audit services are controlled. Therefore, to further strengthen effectiveness of internal audit within public TVET Institutions in the western region of Kenya, it is vital to guarantee that internal auditors have unhindered access to audit evidence. This entails having access to critical information and data, as well as the cooperation of departmental staff and senior-level management, especially when conducting management audits. These results are consistent with the study that was carried out by Alzeban and Sawan (2013), who underlined that auditor autonomy may be accomplished via methods such as unrestricted access to documents, information, and individuals inside the company. In addition, Arena and Loebbecke (2015) agree with the assertion that internal auditors should be given the authority to access records of account, financial information, and necessary explanations required for audit assignments at any time. This is said to provide adequate independence and boost the effectiveness of the audit unit.

Level of reporting is a variable that displayed a substantial contribution to the model, as shown by the coefficient (B=0.448, p=0.020), which suggests that the variable is significant. This indicates that a one-unit change in level of reporting leads to a significant performance shift of 44.8% in the same direction, when other factors, such as the scope of audit work, access to audit evidence and provision of non-audit services are controlled. It is essential to make certain that the reporting structure for internal auditors is adequate so as to boost the effectiveness of internal audits carried out within these public TVET Institutions. As a consequence of this, internal auditors are required to report functionally to the audit committee and administratively to senior-level management. This ensures that they remain free from undue influence and protects their independence.

These findings are consistent with the research that was carried out by Salehi (2016) and Widagdo (2018), who observed that independence and objectivity can strengthen the efficacy of audits when internal auditors report administratively to the CEO and functionally to a suitably senior authority within the organization, such as the audit committee. Further, George et al. (2015) points out the importance of auditors reporting functionally to an authority that possesses sufficient authority to uphold the auditors' independence, promote a broad functional scope, ensure thorough consideration of engagement communications, and facilitate effective action on audit recommendations. These authors concur with the previous statement and add that this requirement should be met at a minimum.

In conclusion, provision of non-audit services was shown to also offer a unique and significant addition to the framework, with a coefficient of (B=0.689, p=0.016). This indicates that a one-unit adjustment in the provision of non-audit services results in a significant productivity adjustment of 68.9% in similar direction when other factors in the model are kept constant (scope of audit work, access to audit evidence, and degree of reporting). It is necessary to set constraints on the engagement of internal auditors in delivering non-audit services in order to improve the effectiveness of internal auditing within government TVET Institutions in western region of Kenya. When providing audit services, it is vital to take this precaution in order to avoid any kind of compromise to their independence.

The findings align with Albaqali and Kukreja (2017) study that observed the provision of non-audit functions had a major impact in degrading auditor independence, which might possibly lead to audit failures. However, it is crucial to highlight that there is contradicting research in this area, as Sobrinho and Bortolon (2016) found that the supply of non-audit roles did not substantially influence auditor independence. This lends credence to the idea that the effect of non-audit services on the independence of auditors may vary depending on the particular conditions in play.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter gives an overview of the material that was discussed in the chapters that came before it. It provides a synopsis of study results, draws inferences on the basis of those findings, and makes recommendations and proposals for further investigation.

5.2 Summary of Findings

The major objective of the research was to establish effect of internal audit independence on internal audit effectiveness in public Technical and Vocational Education and Training institutions in the Western region of Kenya. In order to achieve this, certain specific objectives certain goals have to be devised. They included establishing the effect of scope of audit work on internal audit effectiveness, determining effect of access to audit evidence on internal audit effectiveness, establishing effect of level of reporting on internal audit effectiveness and examining the effect of provision of non-audit services on internal audit effectiveness. Independently and as a combination, the hypotheses were investigated using a confidence level of 95% (p 0.050). The results of these examinations are broken down and summarized in the following parts.

5.2.1 Effect of Scope of Work on Internal Audit Effectiveness.

Firstly, this research aimed to establish the effect of scope of work of internal auditors on the effectiveness in public TVET institutions in Western, Kenya. The findings of the survey showed that study participants largely agreed that internal auditors at these institutions had the ability to set the scope of their audit work. On the other hand, respondents did not agree with the notion that top management decides how much audit work has to be done. In addition, the research showed that internal auditors have a large amount of influence over the audit methods and procedures that are used when conducting audit assignments. Respondents had a neutral view when it came to the question of whether significant audit findings were included in reports without interference from senior management. In conclusion, all of the individuals who took part in the survey agreed that internal auditors have the right to determine the period an audit would last.

Results of the statistical analysis show there is a moderate association ($R = 0.427$, $P< 0.001$) between scope of work and internal audit effectiveness. Further, the R^2 value showed that the scope of the audit work is responsible for roughly 18.2% of variability in the effectiveness of the internal audit ($R^2=0.182$, $P<0.001$). This lends credence to the idea that the extent of the audit work has a significant and positive effect on internal audit effectiveness. To be more specific, when all other parameters are kept the same, an increase of one unit in the scope of audit work leads in a 0.320 (1=0.320) improvement in the effectiveness of internal audit in Public TVET Institutions in the western area of Kenya. The first null hypothesis, HO_1: *Scope of work of internal auditors has no significant influence internal audit effectiveness in Public TVET Institutions in Western Kenya*, was thus refuted as a consequence of the findings of this study.

5.2.2 Effect of Access to Audit Evidence on Internal Audit Effectiveness.

The second objective was to determine the effect of access to audit evidence on internal audit effectiveness in public TVET institutions in the Western, Kenya. According to the findings, respondents did not have a strong opinion either way about whether or not internal auditors were given full access to the data and information that was necessary during their audits. In addition, respondents were not in agreement with the statement that internal auditors were restricted to examining information that are generally examined by external auditors only. In addition, the participants were neutral on internal auditors receiving complete cooperation from the individuals or groups being audited. While it came to the question of whether internal auditors had full access to senior-level managers while carrying out management audits, the respondents were neutral, hence did not have a strong opinion either way. Finally, the results showed that respondents were neutral on the auditors having unrestrained access to the institution's departmental staff.

According to the findings of the statistical research, there is a relationship between access to audit evidence and internal audit effectiveness($R = 0.390$, $P<0.001$). In addition, the R^2 value showed access to audit evidence accounts for roughly 15.2% of the variance in the effectiveness of internal audits ($R^2=0.152$, $P<0.001$). It is therefore evident that having access to audit material is a crucial factor in determining how successful an internal audit will be. In concrete words, and assuming that all other variables remain the same, an increase of one unit in access to audit evidence leads in a 0.162 (1 = 0.162) increase in the effectiveness of internal audits performed by Public TVET Institutions in the western area of Kenya. As a consequence of this, the second null hypothesis, HO2: *Access to audit evidence has no significant effect on internal audit effectiveness in Public TVET Institutions in Western Kenya*, was found to be false and hence rejected.

5.2.3 Effect of Level of Reporting on Internal Audit Effectiveness.

The third objective of this study was to establish the effect of level of reporting on internal audit effectiveness in public TVET institutions in the Western, Kenya. According to the findings, the respondents demonstrated neutrality on whether the public TVET institutions had audit committee that were properly constituted as per the statutes. In addition, the respondents were not in agreement with the notion that internal auditors usually communicate audit results to management prior to reporting to the audit committee. It was also revealed that the study participants were neutral on internal auditors reporting audit findings directly to the audit committee. Lastly, the respondents agreed that internal auditors report administratively to senior level managers.

According to the inferential analysis, there is a relationship between the level of reporting and internal audit effectiveness ($R = 0.394$, $P< 0.001$). In addition, the value R^2 suggested that the level of reporting explains roughly 15.5% of the variability in the effectiveness of internal audit (R^2=0.155, P0.001). This shows that the level of reporting has a significant contribution on internal audit effectiveness. A one-unit increase in the level of reporting corresponds to a 0.278 (1=0.278) improvement in the effectiveness of internal audits carried out in Public TVET Institutions in the western area of Kenya, provided that all other parameters stay the same. As a result, the study failed to accept third null hypothesis, *HO_3: Level of reporting has no significant effect on internal audit in Public TVET Institutions in Western Kenya.*

5.2.4 Effect of Provision of Non-Audit Services on Internal Audit Effectiveness

The purpose of the fourth objective was to the effect of provision of non-audit services effectiveness in Public TVET Institutions in Western region, Kenya. The respondents to the study were neutral on internal auditors offering advisory services to senior management. They did not agree with the notion that the institution's internal auditors provided tax consulting services to the institution's Finance office. In addition, the respondents strongly disagreed that internal auditors are accountable for the implementation of internal controls on behalf of management. The participants also agreed that internal auditor' tenure in the TVET Institutions has been more than three years.

Statistical findings showed that there is a positive relationship between the provision of non-audit services and internal audit effectiveness of internal audits (R = 0.495, P 0.001). In addition, the R^2 value demonstrated that the supply of non-audit services accounts for roughly 24.5% of the variance in the effectiveness of the internal audit (R^2=0.245, P<0.001). This would imply that the provision of non-audit services is a strong predictor of internal audit effectiveness. When all other parameters are held constant, an increase of one unit in the provision of non-audit services leads in a 0.723 (1=0.723) increase in the effectiveness of internal auditing carried out by Public TVET Institutions in the western area of Kenya. As a result, the study failed to accept fourth null hypothesis, known as HO_4: *Provision of non-audit services has no significant effect on internal audit effectiveness in Public TVET Institutions in Western Kenya.*

5.3 Conclusion of the Study

The research endeavor established that limitation of internal auditor's scope of work can adversely affect the internal audit effectiveness. As witnessed in this study, most auditors in TVET Institutions in Western region, Kenya to a fair extent have freedom in their scope of work. However, inclusion of significant findings in their reports without interference from senior management has been a major setback thereby affecting the internal audit function effectiveness. Scope of audit work has significant effect on internal audit effectiveness. Therefore, non-limitation of internal auditor's scope of work would ensure significant improvement in internal audit effectiveness in these Public TVET organizations.

In regard to access to audit evidence, internal auditors in public TVET Institutions in Western region, Kenya fairly have access to audit evidence. There is still some hinderance in access of records, access to senior level management and departmental employees' hence causing ineffectiveness of internal audit function. Access to audit evidence has significant effect on internal audit effectiveness. This means that unhindered access to audit evidence would ensure significant improvement in internal audit effectiveness in these Public TVET organizations.

Level of reporting of internal auditors is considered key in ensuring the internal audit function is independent in all aspects both functionally and administratively. In as much as most Public TVET Institutions in Western region, Kenya have ensured that internal auditors report functionally to the audit committee and administratively to the senior level governance, there are still some drawbacks in the reporting structure of internal auditors. This is characterized by existence of audit committees that are not properly constituted as per the statutes in these TVET institutions. It was also established that internal auditors fairly reported audit findings to the audit committee since some of them reported their findings to the senior administration before reporting to the audit committee. Level of reporting has significant effect on internal audit effectiveness in public TVET institutions in Western region, Kenya. Therefore, proper reporting structure would ensure significant improvement in internal audit effectiveness in these Public TVET Institutions in Western region, Kenya.

Concerning the provision of non-audit services, the study findings revealed that most internal auditors in the Public TVET Institutions did not provide non-audit services despite their longer tenure in these institutions. Provision of non-audit services has a significant effect on internal audit effectiveness, hence supply of these services could tamper with the independence of the auditor thereby rendering the internal audit function ineffective.

5.4 Recommendations

The research endeavor obtained practical and policy suggestions founded on the specific objectives as follows.

1. Public TVET Institutions should uphold internal audit function by ensuring internal auditors possess the liberty to determine the extent of audit work and extent of procedures to be used during audit process. The study also recommends guidelines to be put in place regarding senior level managers who interfere with inclusion of significant audit findings. This would ensure non-limitation in scope of auditor's work thereby enhancing effectiveness of internal audit function.
2. Public TVET Institutions to design measures that ensure the internal auditors access all information and records, including senior management and departmental employees when conducting audit function. In as much as there are external policies that allow auditors to access relevant information and records during audit, it is important for the institutions to develop their own internal policies in line with the existing government policies.
3. The study also recommends establishment of legitimate audit committees as per the Public Finance Management Act (2012) that would ensure achievement of independence and therefore effectiveness of internal auditors. This would also ensure that internal auditors strictly report functionally to the audit committee and administratively to the senior management.
4. Sensitization of internal auditors through seminars and workshops in order for them to understand non-audit services that could compromise their independence and hence their effectiveness. Finally, all Public TVET Institutions should treat internal audit

independence as critical as possible because for any internal audit function to be effective, it has to be autonomous.

5.5 Suggestions for Further Research

The research was conducted in Public TVET Institutions in Western region, Kenya. A similar investigation should be performed concentrating on the impact of internal audit independence on internal audit effectiveness in other TVET Institutions in Kenya to explore whether there is consistency with the research’s outcomes. Other research studies on other higher learning institutions such as universities and colleges in Kenya should be performed to obtain knowledge on the aspects to establish alignment on them.

This research endeavor established the effect of internal audit independence on internal audit effectiveness in Public TVET Institutions in Western region, Kenya. The coefficient of determination (R^2= 0.313) was 0.313, which indicates that 31.3% of the deviation in the internal audit effectiveness can be illustrated by the four predictor variables and the remaining 68.7% of the variations in internal audit effectiveness is illustrated by additional aspects not included in the framework. This implies that there exists additional aspects that illustrate internal audit effectiveness in these organizations rather than internal audit independence and its predictors. Studies could introduce other measures in similar research including management support, competence of internal audit personnel and relationships between internal audit and external audit function. Prospective research can investigate the merits that a Public TVET Institutions can leverage from fostering effective internal audit function.

REFERENCES

Adams, M. B. (1994). Agency theory and the internal audit. *Managerial Auditing Journal, 9*(8), 8-12. https://doi.org/10.1108/02686909410071133

Affum, W. O. (2011). *Evaluation of internal controls in Papso Ghana Limited* (Doctoral dissertation).

Ahmad, N., Othman, R., Othman, R., & Jusoff, K. (2009). The effectiveness of internal audit in Malaysian public sector. *Journal of Modern Accounting and Auditing*, *5*(9), 53.

Ahmad, W. F. W., Yussiff, A. S., & Mustapha, E. E. (2015). The evaluation of the usability and effectiveness of TELERECS e-collaboration system. *In Proceedings of the International HCI and UX Conference in Indonesia* (pp. 18-25). ACM.

Aila, F., & Ombok, B. (2015). Validating measures in business research: Practical implications.

Al-Akra, M., Abdel-Qader, W., & Billah, M. (2016). Internal auditing in the Middle East and North Africa: A literature review. *Journal of International Accounting, Auditing and Taxation, 26,* 13-27.

Albaqali, Q., & Kukreja, G. (2017). The factors influencing auditor independence: The perceptions of the auditors in Bahrain. *Corporate Ownership and Control, 14* (2), 369-382.

Al-Twaijry, A. M., Brierley, J. A., & Gwiliam, D. (2003). The development of internal audit in Saudi Arabia: An institutional theory perspective. *Critical Perspectives in Accounting* (5), 507-531.

Alzeban, A., & Gwilliam, D. (2012). Perceptions of managers and internal auditors as to factors affecting the effectiveness of internal audit in the public sector context. In *10th European Academic Conference on Internal Audit and Corporate Governance* (pp. 1-54).

Alzeban, A., & Sawan, N. (2013). The role of internal audit function in the public sector context in Saudi Arabia, *African Journal of Business Management Vol. 7*(6*)*, pp. 443-454.

Alzeban, A., & Gwilliam, D. (2014). Factors affecting the internal audit effectiveness: A survey of the Saudi public sector. *Journal of International Accounting, Auditing and Taxation*, *23*(2), 74-86.

Anichebe, A.S. (2010). *Auditing and Investigation*. Onitsha: Ade Graphics & Publishers 275p.

Arena, A., & Loebbecke. (2015*). Auditing. An Integrated Approach*. 7th Edition. Prentice Hall. ISBN 0-13-649365- 6.

Arena, M., & Azzone, G. (2009). Identifying organizational drivers of internal audit effectiveness. *International Journal of Auditing*, *13*, pp. 43-60. https://doi.org/10.1111/j.1099-1123.2008.00392.x

Arena, M. (2013). Internal audit in Italian universities: An empirical study. *Procedia - Social and Behavioral Sciences, 93: 2000–2005.*

Association of Chartered Certified Accountants (ACCA), (2015). *Advanced Auditing and Assurance*. Kaplan Publishing: United Kingdom.

Badara, S., & Saidin, Z. (2013). Impact of effective internal control system on the internal audit effectiveness at local government level. *Journal of Social and Development Sciences*.*4* (1)16-23.

Baguley, T. (2012). Loglinear models. Online Supplement 5 to Serious stats: A guide to advanced statistics for the behavioral sciences.

Bananuka, J., Nkundabanyanga, S. K., Nalukenge, I., & Kaawaase, T. (2018). Internal audit function, audit committee effectiveness and accountability in the Ugandan statutory corporations. *Journal of Financial Reporting and Accounting, 16*(1), 138-157.

Basel Committee. (2012). Basel committee on banking supervision: The internal audit function in banks. *Bank for International Settlements*.

Baskerville, R., & Pries-Heje, J. (2014). Explanatory design theory. *Business & Information Systems Engineering, 2*(5), 271-282.

Bowen, P., Rose, R., & Pilkington, A. (2017). Mixed methods-theory and practice. Sequential, explanatory approach. *International Journal of Quantitative and Qualitative Research Methods, 5*(2), 10-27.

Bryman, A., & Cramer, D. (2014). *Quantitative data analysis with SPSS 12 and 13: A guide for social scientists.* Routledge.

Canning, M., & Gwilliam, D. (2010). Non-audit services and auditor independence: Some evidence from Ireland, *European Accounting Review*, 8:3, 401-419, DOI: 10.1080/096381899335853.

Carolyne, S., Robert, E. K., & Ayub, S. E. (2020). Influence of reward policies on employee commitment. *Int. J. of Multidisciplinary and Current research,* 8.

Champion, D. J., & Sear, A. M. (2009). Questionnaire response rate: A methodological analysis. *Social Forces,* 335-339.

Chepkorir, L. E. O. N. A. (2010). *The roles and challenges of internal auditing in the banking industry in Kenya* (Doctoral dissertation, University of University).

Chukwunedu, O., & Okafor, G. (2014). Joint provision of audit and non-audit services in Nigeria. *The IUP Journal of Accounting and Research and Audit Practices, 13 (*10), 30-45.

Cooper, D.R. and Schindler, P.S. (2011) *Business Research Methods*. McGraw-Hill, New York.

Cresswell, J. (2014). *Research design.* Thousand Oaks: Sage publications.

DeFord, M. L., Raghunandan, K., & Subramanyam, R. (2010). Do non-audit service fees impair auditor independence? Evidence from going concern audit opinions. *Journal of Accounting Research,* 40, 1247–1274. doi:10.1111/1475-679X.00088. tps://doi.org/10.1111/1475-679X.00088

Dellai, H., & Omri, M. A. (2016). Factors affecting the internal audit effectiveness in tunisian organisations. *Finance and Accounting*, *7*(16), 1-14.

Dibia, O. (2016). Perspectives on the internal audit function. *Journal of Accounting*. Igbinedion University

Dikko, M. (2016). Establishing construct validity and reliability: Pilot testing of a qualitative interview for research in Takaful (Islamic Insurance). *Qualitative Report*, *21*(3),521-528.

Dittenhofer, M. (2011). Internal audit effectiveness: An expansion of present methods. *Managerial Auditing Journal*, *16*(8), 443-450.

D'Onza, G., Selim, G.M., Melville, R., & Allegrini, M. (2015) A study on internal auditor perceptions of the function ability to add value. *International Journal of Auditing, 19 (3), 182-194.*

Durand, G. (2019). The determinants of audit report lag: A meta-analysis. *Managerial Auditing Journal*, 34(1), 44-75. https://doi.org/10.1108/MAJ-06-2017-1572.

Ebissa, T., (2015). Determinants of internal auditors' effectiveness: Case of Ethiopian public sectors (Sep 6, 2015). *International Journal of Advances in Management and Economics, ISSN: 2278-3369*. Available at SSRN: https://ssrn.com/abstract=2759749

Endaya, A., and Hanefah, M., (2013). Internal audit effectiveness: An approach proposition to develop the theoretical framework. *Research Journal of Finance and Accounting 4,* (10).

Erasmus, L., & Coetzee, P. (2018). Drivers of stakeholders' view of internal audit effectiveness management versus audit committee. *Managerial Auditing Journal*, 33(1): 90–114.

Etikan, I., & Bala, K. (2017). Sampling and sampling methods. *Biometrics & Biostatistics International Journal, 5*(6), 00149.

Field, A. P. (2005). *Discovering Statistics using SPSS*. London: Sage.

Gelfand, S. J. (2015). *Understanding the impact of heteroscedasticity on the predictive ability of modern regression methods.* Routledge.

George, D., Theofanis, K., & Konstantinos, A. (2015). Factors associated with internal audit effectiveness: Evidence from Greece. *Journal of Accounting and Taxation*. Vol. 7(7), pp. 113-122, July 2015 DOI: 10.5897/JAT 2015.0182

Golafshani, N. (2013). Understanding reliability and validity in qualitative research. *The qualitative report, 8*(4), 597-607

Goodwin, J. (2001). Two factors affecting internal audit independence and objectivity: Evidence from Singapore. *International Journal of auditing*, 107-125.

Greenland, S., Senn, S. J., Rothman, K. J., Carlin, J. B., Poole, C., Goodman, S. N., & Altman, D. G. (2016). Statistical tests, P values, confidence intervals, and power: a guide to misinterpretations. *European journal of epidemiology, 31*(4), 337-350

Habib, A. (2014). Comparison of decision of systematic sampling with some other probability. *American Journal of Applied Statistics, 3*(4), 111-116.

Hailemariam, S., (2014). Determinants of internal audit effectiveness in the public sector, case study in selected Ethiopian public sector offices. Thesis. Jimma: *Jimma University*

Haji, A.A., & Anifowose, M. (2016), The trend of integrated reporting practice in South Africa. *Sustainability Accounting, Management and Policy Journal*, *Vol. 7* No. 2, pp. 190-224. https://doi.org/10.1108/SAMPJ-11-2015-0106

Hay, D., Holm, C., & Zhang, Y. (2016). Non-audit services and auditor independence: Norwegian evidence. *Journal-Congent Business and Management* Vol 3 Issue 10

Hazzi, O., & Maldaon, I. (2015). A pilot study: Vital methodological issues. *Business: Theory and Practice, 16*(1), 53-62.

Hellman, N. (2011). Chief financial officer influence on audit planning. *International Journal of Auditing*. 15. 10.1111/j.1099-1123.2011. 00433.x

Huong, G. T., Minh, H. T., & Dao, T. B. (2023). Agency theory in university governance and role of internal audit: case of Vietnamese public higher educational institutions. DOI:10.2991/978-94-6463-076-3_46

Hussein, K., & Abdelmohsen M.D. (2018). Provision of non-audit services affect auditor independence and audit quality. *Management Journal of Accounting and Finance 14*(1), 25-55.

IIA. (2010). *Measuring Internal Audit and Efficiency: IPPF - Practice Guide*. Florida: Institute of Internal Auditors.

Institute of Internal Auditors (IIA). (2013). *The Professional Practices Framework*.

Institute of Internal Auditors (11A). (2015*).The state of the Internal Audit Profession in Africa*.

International Standard for the Professional Practice of Internal Auditing, 1100, (2017). *The provision of non-audit services to clients.* IPPF, 2017.

Jepkoech, J. (2021). Operational determinants and revenue collection efficiency in county government of Nandi, Kenya.

Johnston, B. D. (2014). *Sharing data collection instruments*.

Kadondi, O. N. (2012). Internal audit education: Exploring professional competence, *Managerial Auditing Journal*, *11* (5): 28-36.

Kaplan Financial Knowledge Bank, (2016). Audit and Compliance. *Reporting on Internal Controls.* Kaplan Publishing Unit 2. The Business Centre. Molly Millars Lane. Wokingham Berkshire RG41 2QZ. Email: *publishing@kaplan.co.uk.*

Kiema, M. (2015). Influence of internal audit independence on the financial performance of small and medium enterprises: A case of the construction industry in Mombasa County, Kenya.

Kimotho, T. (2014). Factors affecting internal audit independence: A case study of technical university of Mombasa. *European Journal of Business and Management*. www.iiste.org ISSN 2222-1905 (Paper) ISSN 2222- 2839 (Online) Vol.6, No.6, 2014 145.

Kothari, C. R. (2008). *Research Methodology, Methods and Techniques* (2nd ed., pp. 109-110*). New Delhi New Age Inter- national (P) Limited.*

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).

Lawrence, B. (2013). Institutional strategy. *Journal of Management*, 25(2), 161-188

Limperg, T. (1932). *The Theory of Inspired Confidence*. Netherlands: Limperg.

Mabele, E. B. (2019). Working capital management and performance of public service vehicles insurance companies in Kenya.

Magero, R. (2019). Internal factors affecting internal audit effectiveness in semi-autonomous government agencies in the ministry of environment and forestry in Kenya.

Maribe, G. (2010). *Is blood thick than water? A study of stewardship perceptions in family business*. Nairobi: Paulines Publications.

Meckling, W. H., & Jensen, C. M. (1976). Theory of firm: Managerial behaviour, agency costs and ownership structure. J*ournal of Financial Economics. Vol 3,* No 2: 305-360.

Meyer, J., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology. Vol 83,* No 2: 340-363.

Mihret, D., James, K., & Joseph, M. (2010). Antecedents and organizational performance implications of internal audit effectiveness: Some propositions and research agenda. *Pacific Accounting Review,* 22(3), 224 –252.

Moraa, N. O. (2013). Effect of internal audit on financial performance of commercial banks in Kenya.

Mugwe, M. (2012). The relationship between independence and objectivity of the internal audit function and earnings per share in companies listed in NSE.

Musallam, S.R. (2020). Effects of board characteristics, audit committee and risk management on corporate performance: evidence from Palestinian listed companies. *International Journal of Islamic and Middle Eastern Finance and Management.*

Mustika, A. C. (2015). Factors affecting the internal audit effectiveness. *Journal of Accountancy and Auditing.* Volume 12/No. 2 Tahun 2015: 110-122.

National Institute of Public Administration (NIPA), (2020). *Internal Audit Effectiveness in Public Universities.*

Ngugi, G. (2020). Determinants of internal audit and its effectiveness in the public sector in Kenya: A case of the national treasury.

Njagi, M. (2023). Independence of internal auditors: Significance, guidelines, and influencing factors. *East African Finance Journal; 2* (1), 56-63.

Nurhayati, S., & Prastiti, S. D. (2019). Impact of audit tenure and audit rotation on audit quality: Big 4 vs non-big 4. *Managerial Auditing Journal; 3*(2), 165–174.

Nwaobia, A. N., Ogundajo, G. O., & Theogene, N. (2016). Internal audit practices and public financial management in Rwanda and Nigeria: Bridging the transparency gap in public sector financial reporting. *International Journal of Advanced Academic Research Social & Management Sciences*, *2*(10), 55-77.

Nyaga, K. M., Kiragu, D., & Kamau, R. (2018). Influence of internal audit independence on internal audit effectiveness in Kirinyaga County, Kenya. *International Journal of Economics, Commerce and Management; Vol. VI,* Iss 5.

Odoyo, F.S., Okinyi, N.C & Omwono, G.A. (2014). Analysis of the role of internal audit in implementing risk management- a study of state corporations in Kenya. *International Journal of Business and Social Science; Vol.5,* Iss 6.

Omari, D.M. (2015). Factors influencing the independence of auditors in universities in Kenya: A survey of universities in Meru Region.

Omid, M. & Davood, A. (2021). Audit committee characteristics and quality of financial information: *The Role of the Internal Information Environment and Political Connections Journal 14*: 273

Owalla, W., Luanga, S. A., & Museve, E. (2014). Effectiveness of internal audits in public educational institutions in Kenya: Rethinking value. *International Journal of Engineering Inventions; Vol. 4,* Iss. 8, 32.

Reiner, L., & Hoos, F. (2023). The future role of internal audit function. *Journal of Economics and Finance, 67* (3), 39-52, DOI: 10.1080/07366981.2023.2165361

Ridley, J. (2008). Cutting edge internal auditing. DOI:10.1002/9781119208440

Sakour, A., & Laila, N. (2015). Internal audit effectiveness in Libyan public enterprises: an approach to the development of a theoretical framework. Global Business and Management Research: *An International Journal, 7(2).*

Salehi, T. (2016). Investigation of factors affecting the effectiveness of internal auditors in the company. Case of Iran. *Review of European Studies*; Vol. 8, No. 2; 2016 ISSN 1918-7173 EISSN 1918-7181. Published by Canadian Center of Science and Education.

Sarens, G. (2006). Internal auditors’ perception about their role in risk management: A comparison between US and Belgian companies. *Managerial auditing Journal, vol. 21 (1),* 63-80.

Saunders, M., Lewis, P. & Thornhill, A. (2012). *Research Methods for Business Students*. 6th edition. *Pearson Education Limited.*

Schneider, J. & Hutt, E. L. (2018). A history of achievement testing in the United States or: Explaining the persistence of inadequacy. *Teachers College Record 120*(11)

Shamki, D., & Amur Alhajri, T. (2017). Factors influencing internal audit effectiveness. *International Journal of Business and Management, 12*(10), 143.

Sobrinho, W.B.R., & Bortolon, P.M. (2016). Non-audit services and auditor independence in an environment of low investor protection. *Revista Universo Contabil, 12* (4), 107-128.

Strasser, P.G. (2016). An anti-corruption bureaus's inexorable endeavor: A study of Malawi's cash gate scandal. *Washington and Lee Law Review. Vol. 73,* Iss 1, 11.

Subramaniam, N., & Stewart, J. (2010). Internal audit independence and objectivity: Emerging research opportunities. *Managerial Auditing Journal*. ISSN 0268-6902. Emerald Publishing. *http://www.emeraldgrouppublishing.com/products/journals/journals.htm?id=maj:*.

The Chartered Institute of Internal Auditors, (2015). *Effective internal audit in the financial services sector.* Recommendations from the committee on internal audit guidance for financial services.

The Financial Reporting Council, United Kingdom, FRC, (2014). UK corporate Governance Code. © *The Financial Reporting Council Limited.* Registered in England number 2486368. Registered Office: 8th Floor, 125 London Wall, London EC2Y 5AS.

The Institute of Internal Auditors Research Foundation, (2011*). International Professional Practices Framework (IPPF),* Florida, U.S.A.

The Public Finance Management Regulations, (2015), Sec 162. *Independence of the internal auditor*.

The Public Service Commission of Kenya, (2015). Mwongozo Code of Governance for State Corporations. Government Press.

Unegbu A.O. and Kida M.I. (2011), Effectiveness of internal audit as instrument of improving public sector management. *Journal of Emerging trends in Economics and Management Sciences (JETEMS) 2*(4), 302-309.

Vijayakumar, A. and Nagaraja, N. (2012) Internal control systems: Effectiveness of internal audit in risk management at public sector enterprises. *BVIMR Management Edge,* 1, 1-8.

Wechuli, E. W (2021). Organizational resources, corporate governance and performance of regional development authorities in kenya.

William, L. G., Kumah, E. A., & Kwasi, C. C. P. (2013). Effective implementation of internal audit function to promote good governance in the public sector of Ghana. *Allana Management Journal of Research, Pune, 3,* 115-122.

Yalew A., (2015). Determinants of internal audit effectiveness. Empirical study on the construction and business bank. School of graduate studies. *St. Mary's University. Addis Aobaba, Ethiopia.*

Yazan, Y. A., Wan, S. Y., Sallha, Y., Mohd, F.S., Fairuz, M. S., Suraiya, I & Omar, A. A. (2022). The effect of audit tenure and internal audit effectiveness on external audit quality: Evidence from Jordanian external auditors, *Journal of Positive School Psychology*, *Vol.6,* No.4, 2545-2561.

Yee, C. S. L., Sujan, A., James, K., & Leung, J. K. S. (2008). Perceptions of Singaporean internal audit customers regarding the role and effectiveness of internal audit. *Asian Journal of Business and Accounting*,1(2),147-174.

Zhao, L., Tian, L., Cai, T., Claggett, B., & Wei, L. J. (2013). Effectively selecting a target population for a future comparative study. *Journal of the American Statistical Association*, *108*(502), 527-539

Zogning, F. (2017) Agency theory: Critical review. *European Journal of Business and Management, 9,* 1-8

APPENDICES

APPENDIX I: DATA COLLECTION INTRODUCTORY LETTER

Introductory Letter

Currently, I am a graduate student in the Department of Business Administration (Accounting), School of Business and Economics at Masinde Muliro University of Science and Technology. I am doing a study on internal audit independence and internal audit effectiveness in public TVET institutions in Western Region, Kenya. Your cooperation in answering the questions in the accompanying questionnaire would be much appreciated, and you may rest assured that all responses will be kept strictly confidential and used just for academic purposes. Thank you in advance.

Yours faithfully,

Aluvala Beryl Lihavi

APPENDIX 11: RESEARCH QUESTIONNAIRE

INSTRUCTION:

Please give complete and honest answers to all of the inquiries by placing a check mark () or a number in the box that best matches your response or by writing in the places where necessary.

N.B: The data will only be used for academic rationales and will be kept in the strictest of secrecy**.**

SECTION A: GENERAL INFORMATION

1. **Name of TVET Institution** ……………………………………………………………...

2. **Position held in the Institution** …………………………………………………………

3. **Kindly indicate professional course done**

CPA ( )

CIFA ( )

CIA ( )

ACCA ( )

Other ( )

If other, specify the professional course ………………………………………………….

4. **Kindly indicate your level of work experience**

1-3 years ( )

3-5 years ( )

5-8 years ( )

Over 8 years ( )

SECTION B: INTERNAL AUDIT INDEPENDENCE

With respect to internal audit independence, rate the extent to which you agree with the below statements using any of the following ratings:

1. Strongly Disagree (SD)
2. Disagree (D)
3. Neutral (N)
4. Agree (A)
5. Strongly Agree (SA)

	Statement	**5**	**4**	**3**	**2**	**1**
		SA	**A**	**N**	**D**	**SD**
S/NO	**Scope of work**					
1	The Internal Auditor has freedom to determine the extent of audit work					
2	The extent of audit work is determined by senior management					
3	The extent of audit procedures used during auditing is wholly determined by the internal auditor					
4	Internal auditor is allowed to include significant findings in their reports without interference from senior management					
5	Internal auditor has the power to determine the period an audit will take					

	Statement	5	4	3	2	1
		SA	A	N	D	SD
S/NO	**Access to audit evidence**					
1	Internal auditor has full access to records and information required during audit					
2	Internal auditor is restricted to items normally checked by external auditors only					
3	Internal auditor receives full cooperation from auditees during audit exercise.					
4	The internal auditor has complete access to senior level managers when conducting management audit					
5	Internal auditor has free access to all departmental employees in the institution					

	Statement	5	4	3	2	1
		SA	A	N	D	SD
S/NO	**Level of reporting**					
1	The institution has an audit committee that is properly constituted as per the statutes					
2	The Internal Auditor reports audit findings to the management before reporting to the audit committee					
3	Internal auditor reports audit findings directly to the audit committee.					
4	The internal auditor reports administratively to the senior level management					

	Statement	5	4	3	2	1

		SA	A	N	D	SD
S/NO	**Provision of non-audit services**					
1	Internal auditor offers advisory services to the senior level management					
2	Internal auditor offers tax consulting services to the Finance office in the institution					
3	Internal auditor implements internal controls in the institution on behalf of management					
4	Internal auditor tenure has been more than three years					

SECTION C: INTERNAL AUDIT EFFECTIVENESS

1. Kindly indicate your level of agreement with the following aspects on the Internal audit effectiveness in the public TVET Institutions?

Use a scale of 1-5;

1= 0-10, **2**= 11-20, **3**= 21-30, **4**= 31-40, **5**= Above 40

	Internal Audit Effectiveness	**5**	**4**	**3**	**2**	**1**
	RANGE	**Above 40**	**31-40**	**21-30**	**11-20**	**0-10**
	Risk Management					
1	The number of risks identified by the internal audit department for the past four years					
2	The number of risk management strategies developed over the past four years					
	Internal Controls					
3	The number of Internal control weaknesses detected by the internal auditor for the past four years					
4	Number of Internal controls developed by the institution for the past four years					
	Compliance					
5	The number of governance policies developed by the TVET institution over the past four years					

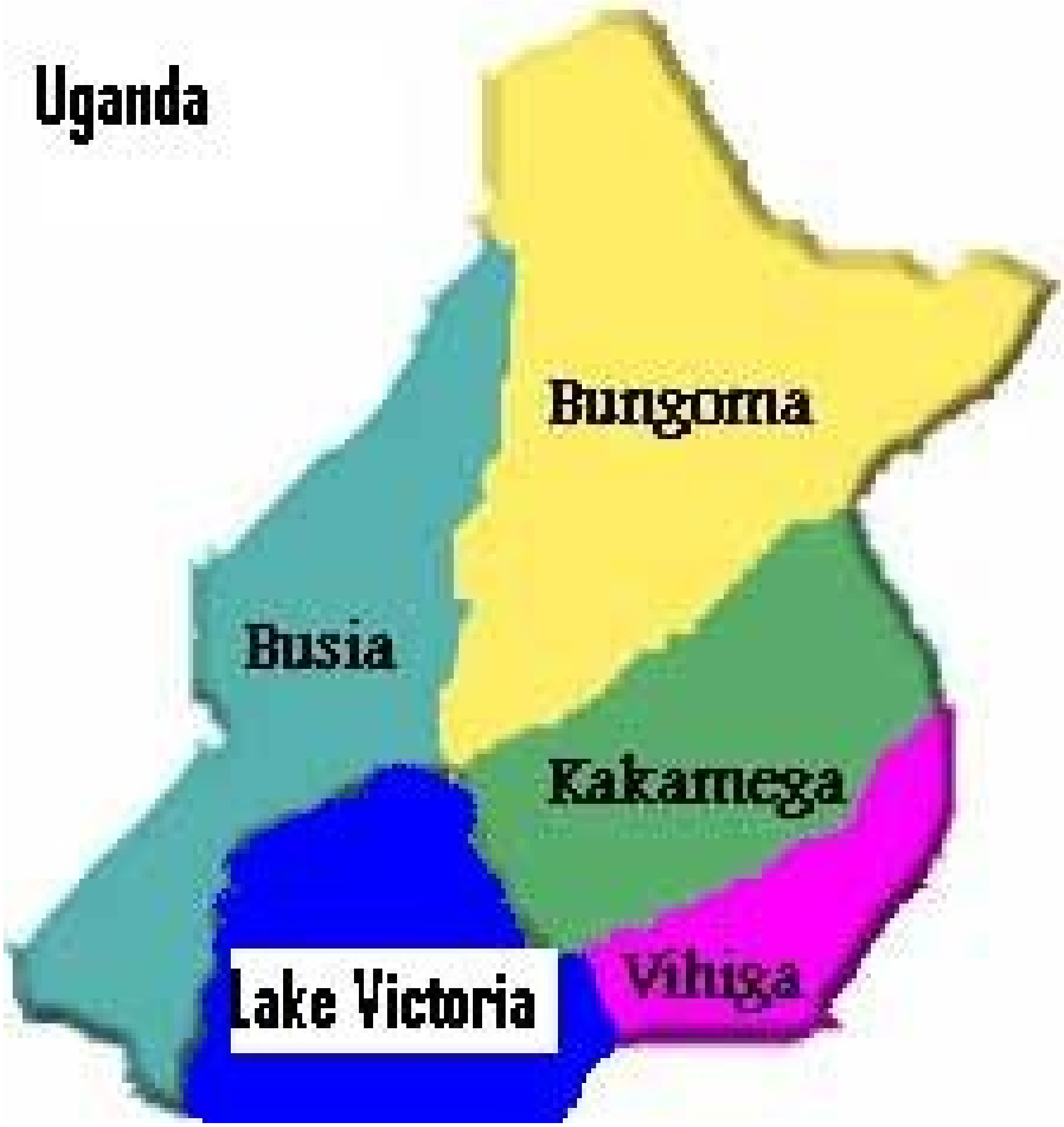
APPENDIX III: REGISTERED AND LICENSED PUBLIC TVET INSTITUTIONS IN WESTERN REGION

S/NO	NAME OF PUBLIC TVET INSTITUTION	COUNTY

1.	Sigalagala National Polytechnic	Kakamega
2.	Friends College Kaimosi	Vihiga
3.	Sabatia Technical and Vocational College	Vihiga
4.	Bunyala Technical and Vocational College	Busia
5.	Butere Technical and Vocational College	Kakamega
6.	Kisiwa Technical Training Institute	Bungoma
7.	Matili Technical Training Institute	Bungoma
8.	Mumias West Technical and Vocational College	Kakamega
9.	Musakasa Technical Training Institute	Bungoma
10	Okame Technical and Vocational College	Busia
11.	Bumbe Technical Training Institute	Busia
12.	Shamberere Technical Training Institute	Kakamega
13	Bushiangala Technical Training Institute	Kakamega
14.	Sang'alo Institute of Science and Technology	Bungoma

Source: Kenya Association of Technical Training Institute website (2022)

APPENDIX VI: MAP OF STUDY AREA



Source: Wikipedia; Western region, Kenya (2023)
APPENDIX V: NACOSTI RESEARCH LICENSE

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **477833**

Date of Issue: **02/March/2023**

RESEARCH LICENSE

This is to Certify that Miss.. BERYL LIHAVI ALUVALA of Masinde Muliro University of Science and Technology, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Bungoma, Busia, Kakamega, Vihiga on the topic: INTERNAL AUDIT INDEPENDENCE AND INTERNAL AUDIT EFFECTIVENESS IN PUBLIC TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING INSTITUTIONS IN WESTERN REGION, KENYA. for the period ending : 02/March/2024.

License No: **NACOSTI/P/23/24022**

477833

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

APPENDIX VI: UNIVERSITY RESEARCH AUTHORIZATION

Tel: 0702597361
Tel: 0733120020
email: deansobe@mmust.ac.ke
website:mmust.ac.ke

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY
Technology for Development

P.O Box 190
Kakamega

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY
(MMUST)
SCHOOL OF BUSINESS AND ECONOMICS (SOBE)

REF: MBA/G/01-70021/2020 **DATE:** 18th JANUARY, 2023

TO: ALUVALA BERYL LIHAVI

SUBJECT: SUCCESSFUL DEFENCE OF RESEARCH PROPOSAL, ALUVALA BERYL LIHAVI REG. NO. MBA/G/01-70021/2020

The above subject refers.

Following your successful defense of your research proposal titled "**Internal Audit Independence and Internal Audit Effectiveness in Public, Technical, Industrial, Vocational and Entrepreneurship Training Institutions in Western Region, Kenya**" before the School of Business and Economics Graduate Studies Committee, your research proposal is hereby submitted to Director School of Graduate Studies for documentation and processing. Your supervisors are **Prof. Charles Y. Tibbs, and Dr. Kiongera Fredrick.**

On behalf of the School of Business and Economics Graduate Studies Committee, you are hereby permitted to proceed and collect the data needed to complete your thesis.

By copy of this letter, relevant institutions/bodies are humbly requested to assist you in achieving your endeavor.

Dean
School of Business & Economics(SOBE)
Masinde Muliro University of
Science & Technology

PROF. ROBERT K.W. EGESSA
Associate Professor and Dean
School of Business and Economics
Mobile: 0722-672-264
Email: regessa@mmust.ac.ke