

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

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

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## 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.

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## CERTIFICATION

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.*”

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## **DEDICATION**

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

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## ABSTRACT

The 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 from governing authorities all around the world. 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 if optimum results are to be achieved. As a result, the study aimed to establish the effect of internal audit independence on the 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 the audit committee. Stratified and simple random sampling approaches were used 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 the relationship between dependent and independent variables. In addition to this, multiple regression analysis was used to ascertain the effect of internal audit independence on internal audit effectiveness. The findings showed that internal audit independence accounted for 31.3% of the variances in internal audit effectiveness in Public TVET institutions in Western Kenya ( $R^2= 0.313$ ,  $P=<.001$ ). The hypotheses were therefore rejected. 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. To build up the effectiveness of their audits, internal auditors need to have the freedom to define the scope of the work, be required to communicate their findings directly to the audit committee, and be restrained from undertaking activities that are not directly related to their function.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>ACCA</b>	Association of Chartered Certified Accountants
<b>CAE</b>	Chief Audit Executive
<b>CEO</b>	Chief Executive Officer
<b>CIA</b>	Chief Internal Auditor
<b>CIIA</b>	Certified International Investment Analyst
<b>FRC</b>	Financial Reporting Council
<b>IAC</b>	Internal Audit Charter
<b>IIA</b>	Institute of Internal Auditors
<b>IPPF</b>	International Professional Practices Framework
<b>ISA</b>	International Standards of Auditing
<b>ISPPIA</b>	International Standards for the Professional Practice of Internal Auditing.
<b>KATTI</b>	Kenya Association of Technical Training Institutions
<b>NACOSTI</b>	National Commission for Science, Technology and Innovation
<b>PFM</b>	Public Finance Management
<b>PFMR</b>	Public Finance Management Regulations
<b>SIRO</b>	Senior Information Risk Owner
<b>SPSS</b>	Statistical Package for Social Sciences
<b>TVETA</b>	Technical and Vocational Education and Training Authority
<b>TVET</b>	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 risk management, internal controls, and compliance procedures.
- Internal Audit Independence:** This relates to the internal auditor's potential to tackle their responsibilities without being influenced, including but not limited to the auditor's access to audit evidence, level of reporting, scope of work, and the provision 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 management of risk, the development of internal controls, and adherence to regulatory and compliance 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 reports. Examples of these types of services include advisory services, tax consulting services, and the implementation of internal controls. These services may be provided as a result of the tenure of an auditor in the firm.

**Western Region, Kenya:** The Region of Western, Kenya, which is the former Western Kenya Province, borders Uganda. Counties situated within this region include Kakamega, Vihiga, Bungoma, and Busia Counties.







# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of the Study**

The present accounting frauds in public organizations, the economic flaws, elevating firm intricacies, recognition of and need for accountability and openness have all led 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 contributing 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 to increase value and enhance a company's operations (IIA, 2013).

Internal auditing benefits a company by providing a structured and disciplined technique for evaluating and developing the efficacy of risk management, control, and governance procedures.

According to ISPPIA (2017), for an in-house auditing operation to be successful, the procedure must 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 control over the auditor's behavior, actions, and opinions in a given situation. One element that determines the degree to which internal auditors may be considered independent is the scope of

audit work. As company staff members 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, # auditors need to evaluate and monitor numerous governance choices made by leadership and inform executives on the sufficiency and efficacy of proper controls (Mihret et al., 2010; The Public Service Commission of Kenya, 2015). When internal auditors can 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 can 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 responsible for evaluating auditors' independence. 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 performs its intended purpose. According to Delai and Omri (2016), internal auditors are considered autonomous in their functionality when they are granted unrestricted access to the documents necessary for auditing, access to top-level management, and access to staff from other departments to obtain proof of auditing. Additionally, the level of internal auditors' reporting impacts their independence. ISPPIA 1110 mandates that the senior internal auditing officer must report to a level within the company that paves the way for the internal audit unit to fulfil its duties and obligations. As illustrated by the Public Financial Management Act of 2012, an auditor's independence may be successfully realized when the senior audit officials report operationally to the board and officially to the senior-level management. To

achieve this objective, it is essential to ensure responsibility to the auditing board and uphold a high level of professionalism while interacting with management.

As noted by Chartered Accountants Worldwide (2018), to uphold a high degree of autonomy among auditors, they should not provide services unrelated to their functional role. It has been pointed out that the economic reliance that results from performing non-audit functions and the individual ties that workers develop are two factors that lead to the loss of autonomy of internal auditors. Internal auditors are responsible for providing recommendations about establishing internal operations and controls. Conversely, some companies provide internal auditors with the responsibility of carrying out the policies and procedures they suggest in their reports (Reiner & Hoos, 2023; Albaqali & Kukreja, 2017). Research analysis that emerged from the topic of auditor autonomy noted 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 competence in their jobs.

Independence in internal auditing is most likely one of those standards that functions better in theory than in reality; it offers a problem in that it expects the internal auditor to be both a watchdog and an advisor at the same time. According to Yee et al., (2008), 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 an increasing amount of attention and has been the subject of serious consideration in numerous academic studies. As illustrated by Nyaga et al., (2018), the accomplishment of internal auditing objectives with respect to the total risks determined, internal control flaws discovered, and governance measures yielded were considered to be fundamental in internal auditing.

Internal audit effectiveness is defined by IIA (2010) as the measure by which set internal audit goals are fulfilled. Ascertaining the effectiveness of the internal auditors is possible by assessing whether or not they are able to reassure managers that the procedures and controls that have been put in place are sufficient. Affum (2011) propounds that the effectiveness of an audit function is attributable to the completion of scheduled audits, the prompt delivery of audit findings, and putting in place audit follow-up procedures to ensure that all the audit results are achieved.

Meckling and Jensen first presented their Agency theory in 1976, and it served as the fundamental theoretical framework for this investigation (Meckling & Jensen, 1976). 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 dynamic setting, there is a need to distinguish shareholders from management (Zogning, 2017). This is what resulted in 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) 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 have 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 by 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).

This study intended to determine evidence on the effect of independence of internal auditors on their effectiveness in the public TVET Institutions in Western Kenya. Businesses have voiced fundamental concerns over the autonomy of the audit unit in an effort to boost the effectiveness of internal auditing. Mugwe (2012) indicates that previous investigations on the topic of the effectiveness of internal audits in businesses reveal 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 on good governance; the internal audit unit is unable to fully utilize its function as a consequence of constraints on its breadth, profile, or power, including resource limitations in various regions; 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 internal auditing in Malawi, and the need for internal auditing services is growing. This can be seen through the existence of auditing companies that deliver 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. 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 for making irregular and unauthorized payments to workers who the university had not engaged at the time, totaling seventeen million Kenyan shillings. Government auditors were the ones who discovered these business problems, which casts questions 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. The findings of the regression assessment showed that the autonomy of internal auditors had a statistically significant influence on their effectiveness. 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 conducted in 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 NIPA (2020), the development of educational institutions in general and colleges and universities specifically in Kenya over the last several decades has not been accompanied by comparable growth in the delivery of internal audit functions. Although it is clear that there has been 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 concluded 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 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 have received very little attention (Dellai & Omri, 2016). 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 continue to exist is the question of whether or not a sense of dependency on the internal auditors at public TVET institutions might be responsible for the ineffectiveness of the internal audits.

According to the findings of 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. However, the research was a case study of only one institution. 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. 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**

Specifically, the study sought to:

- i) To establish the effect of the scope of work of internal auditors on internal audit effectiveness in Public TVET Institutions in the Western region.
- ii) To determine the effect of access to audit evidence on internal audit effectiveness in Public TVET Institutions in the Western region.
- iii) To establish the effect of the level of internal auditor reporting on internal audit effectiveness in public TVET institutions in the Western region.
- iv) To examine the effect of the provision of non-audit services on internal audit effectiveness in Public TVET Institutions in the Western region.

### **1.4 Research Hypotheses**

The research was standardized by the following null hypotheses:

***H<sub>01</sub>***: Scope of work of internal auditors has no significant effect on internal audit effectiveness in Public TVET Institutions in Western region.

***H<sub>02</sub>***: Access to audit evidence has no significant effect on internal audit effectiveness in Public TVET Institutions in Western region.

***H<sub>03</sub>***: Level of reporting of internal auditors has no significant effect on internal audit effectiveness in Public TVET Institutions in Western region.

*H<sub>04</sub>*: Provision of non-audit services has no significant effect on internal audit effectiveness in Public TVET Institutions in Western region.

### **1.5 Significance of the Study**

The purpose of the study was to acquire information for public TVET institutions about the association between the independence of internal auditors and the effectiveness of internal audit functions. 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 Kenya's point of view. 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**

This research aimed to establish the effect that internal audit independence has on internal audit effectiveness in Public TVET Institutions located in Western Kenya. At the time of the study,

fourteen public TVET institutions 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 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 and Delimitation of the Study**

Throughout this research, a number of restrictions were expected. To begin with, there were obstacles to 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 to allow respondents plenty of time to fill out the questionnaire at their own opportune time and in the manner that was most comfortable for them.

Secondly, some of the participants were in opposition, and the primary reason for this was that they were wary about the intention of the research. A letter from the institution, as well as a research license from NACOSTI, guaranteed that the participants 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**

#### **2.1 Introduction**

It was essential to conduct a literature review to facilitate a more extensive comprehension of the variables under study. In this section, an empirical and theoretical overview of the relevant literature on internal audits and the independence of internal audit efficiency is 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.

#### **2.2 Theoretical Framework**

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

##### **2.2.1 Agency Theory**

This was the anchor theory of the study. According to Omid and Davood (2021), this theory was first put forward by Meckling and Jensen in 1976. Meckling proposed that when ownership and control are kept separate, it results in conflicts of interest, which in turn expedites increased agency costs. The concept also presupposes the presence of a two-party interaction inside a firm, with shareholders or capital owners serving as the founders and the leaders of the corporation acting in the capacity of stewards (Yalew, 2015; Maribe, 2010).

The theory assumes that the managers, as agents, have superior knowledge and information on the efficiency and value of a firm than the shareholders, who are regarded as the less informed

party in the relationship. Such a state of affairs leads to the emergence of an actual or potential conflict of interest between shareholders and managers of the enterprise. By using the agency model, shareholders have insufficient reasons to believe in their workers due to the possibility of knowledge asymmetry and self-serving motives in a firm. Hence, shareholders use internal auditing to respond to their concerns and to monitor the alignment of goals of workers in their organization as agents with the shareholders (Nyaga et al., 2018).

As stated by The Institute of Chartered Accountants (2012), individuals anticipate that internal auditing will mitigate the chance of data inequality and the tendency to show opportunistic behavior among the worker agents. Endaya and Hanefah (2013) have also revealed that internal auditing is an influential instrument that can be used to address all the problems that an agency is experiencing for the benefit of the firm's stakeholders. A good internal audit function may be useful in enhancing a corporation's performance. Similarly, the performance of a company may be useful in enhancing the performance of an internal audit function. For this reason, the emphasis of the theory is on providing solutions to problems that may arise in agency associations or the relations between executives and subordinates within agency associations.

Since they manage public TVET Institutions' resources and the internal controls for assets, internal auditors ought to have a high degree of independence to ensure that they effectively execute their mandates. This is the connection that the theory has with the context of the study of the present research. In this respect, the theory suggests that the responsibility of exercising control lies within the management team and the board of directors. Based on this argument, the board of directors is to appoint management as its agents in the running of the firm, though the Chief Executive Officer is the head of the firm. Where the audit committee so formed has

failed, the independent internal auditors assure the board of directors of good performance by 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. Nevertheless, the setting where internal auditors report to other officers of these organizations, whom they are supposed to report corrupt activities, allows these top managers to exploit these institutions' resources for their gain (Huong et al., 2023). In this view, the independence of internal auditors is important to safeguard and protect the capital that has been invested in the TVET Institutions for the benefit of the stakeholders.

### **2.2.2 Institutional Theory**

According to Durand's research (2019), Meyer and Rowan came up with the idea for institutional theory in 1977 (Meyer & Rowan, 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 due to the normative forces exerted by external and internal 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 plays a major role 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 considering that its behavior is consistently recognized by the public, following the institutional idea (Al-Twaijry et al., 2003).



According to Maina (2018), several businesses maintain internal structures that are not usually visible to people who are external to the company, while the frameworks built for outsiders fail to contribute to achieving favorable results. Recently, there has been an increased demand for management to seek and implement modern management ideals 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. Many of them have arisen due to societal expectations in reaction to crises involving corporations (Mugwe, 2012).

This line of thinking led the researcher of this study to conclude that the aforementioned firm structures include management control systems that were set up to fulfill a variety of compliance and control criteria created as a direct consequence of corporate conflicts. 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 following society's anticipations. The significance of internal auditing is one of the main instruments companies use to deal with the changes occurring in their external surroundings. Institutional theory posits that an organization comprises 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 try to perform an in-depth analysis of their working environment to guarantee that they are effectively carrying out their functions without compromising their autonomy.

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 ensure that employees are granted independence in their functions concerning the scope of their

working environment, 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 thoroughly familiar with their environment and to ensure that internal auditors uphold competent skills and dedication while implementing their duties in these TVET Institutions.

### **2.2.3 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 the need for stakeholders to expect responsibility from the managers considering their involvement in the company (Adams, 1994). This theory additionally tackles the supply side of the equation. The participation of third parties as stakeholders in the corporation directly affects 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 applies to the current investigation since responsibility for the aforementioned public TVET institutions may be achieved via the dissemination of periodic financial reports. An internal audit function is necessary, but an internal audit unit is needed since the data supplied by the administration may include bias, and other parties do not have any direct tracking methods to ascertain and instill trust in the stakeholders about the dependability of the information being provided. Given the provision of audit assurance, the internal auditors should constantly make an effort to match the demands of the stakeholders, as Limperg mentioned.

The agency theory often lends its weight to the inspired confidence theory. This is because an auditor is typically hired to solve the assurance issue on behalf of both third parties and management. Internal auditors are usually obliged to verify that the institution's resources are being used appropriately and that management accurately accounts for those resources. This responsibility is delegated to the internal auditors by the public TVET institutions. The activities of these auditors play a helpful 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 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 ensures that the internal auditors can 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, internal auditing activities must maintain independence from organizational stakeholders. Internal audit independence is 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 mitigate any risks to the auditors' objectivity adequately. Independence has been characterized as refraining from

circumstances compromising objectivity or allowing personal bias to impact sensitive decision-making.

Auditor independence refers to the lack of authority or oversight over the auditor's actions, behavior, and opinions (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 of the financial information, reflecting the accurate and fair position of the company's financial status during a certain time (Kiema, 2015). To ensure the credibility of an internal auditor's perspectives, findings, and propositions, the auditor must maintain independence from the company's people and operational operations. 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 strong 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 external or internal pressures that might cloud their judgments and prevent them from performing their jobs effectively. This framework allows auditors to scrutinize a firm's governance and control procedures with the utmost attention, strengthening the credibility of the auditors' findings.

Nevertheless, several obstacles 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 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 extend further than a reduction in the auditors' overall effectiveness. The fundamental problem is losing their professional status, which is a major concern. They are in a precarious position concerning 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 accurate and thorough picture of the health of an organization. As a result, the implications are quite broad and far-reaching, affecting not only the auditors but also 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 having certain criteria to follow to manage their tasks suitably. 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**

Internal auditors need unrestrained, immediate, and direct access to documents, officials, contractual staff, and assets that belong to the organization to comply with the Public Financial Management (PFM) Regulations (PFMR, 2015). While the internal auditor should protect the confidentiality of the material that has been acquired, they should also use judgment 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), an auditor's autonomy is jeopardized when management limits access to crucial documents. Because of this obstacle, it is difficult for the auditor to reassure the establishment's stakeholders about the health and efficiency of the group.

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

The individual who oversees the company's internal audits is the one who is responsible for handling this vast amount of information prudently. 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 company's Senior Information Risk Owner (SIRO). This is considered 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 the audit committee 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. Even though they do not provide daily updates to the committee, they must answer to it for strategic advice and accountability. On the other hand, the committee carries a significant amount of weight regarding 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, the internal auditor turns their attention to the audit committee when the conversation gets to strategic direction, fortification, and accountability issues. This delicate role is a vital 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 audit committee is accountable 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. Also, this governing body is still engaged in important workforce decisions regarding the chief internal auditor's engagement, assessment, and salary (CIA, 2015). This decision-making process might lead to the head of internal audit being fired. The committee also functions as a sentinel, looking 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. The internal auditor and CEO

interaction focuses on more administrative and routine responsibilities. These often include the differentiation of budgets, the administration of human resources, the facilitation of inter-office contacts, and day-to-day administrative tasks such as authorizing costs or leaves.

Conserving auditor independence is essential even though the reporting relationships might differ significantly from one organization to the next. The need for 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 senior auditor and the committee, with planned tête-à-têtes serving as a common method for facilitating such communication. Some heads of audit committees go even further, developing a less formal but continuing dialogue with the company's internal auditor outside of the sessions officially scheduled for the committee. The audit committee is responsible and obligated to strengthen the internal audit's standing inside the organization and its operational independence. 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 supporting the internal audit to get any necessary explanations or data to perform its objective successfully.

### **2.3.1.3 Provision of Non-Audit Services**

The Financial Reporting Council (2014) defined non-audit amenities as a spectrum of activities separate from the formal inspection of financial statements. These services include tax advice, IT assessments, corporate finance counseling, and 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 to mitigate risks associated with excessive familiarity, self-review, and entrenched interests.

This concept is discussed in depth by Accounting Hub (2022). Non-audit duties might include delivering attestations, carrying out internal control evaluations, and dabbling in specialized domains such as debt advising and pension counsel. While auditors try to maintain an unshakable level of objectivity, the ethical waters in which they work 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. A study by Kimotho (2014) sheds light on this particular issue, identifying a main source of such possible conflicts as the range of non-audit jobs auditors typically undertake for their customers. This study is illuminating since it sheds light on a problem that needs to be addressed.

Indeed, auditors involved in a wide variety of responsibilities other than auditing may discover that their independence is vulnerable. Keeping a clear and objective perspective gets more difficult, and the services provided become more entangled. 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 auditors must maintain to provide their priceless judgments.

### **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 and professional organizations. In a clear and concise statement, the IIA (2010) defined effectiveness as measuring how successfully internal audit functions accomplish their goals.

Even though researchers have different areas of emphasis, they all agree that an audit is effective if and only accomplishes the aims and goals 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": efficiency, effectiveness, and economy. Ridley believes that, among them, effectiveness is the most important "E." Regarding it, efficiency and economy are of little use if the audit function itself is ineffective and floundering.

According to a definition proposed by George et al., (2015), the essence of an effective internal audit is crystallized in the value it injects into a firm. This value is solidified because an effective internal audit assists managerial efforts to reach institutional goals while strengthening risk management and operational control frameworks. In their study, Alzeban and Gwilliam (2014) agree with this attitude and propose that an effective internal audit is necessary for a company's success. Therefore, the effectiveness of an internal audit is a topic for debate in the academic world and an essential factor in determining how far an organization will go in its pursuit of success.

## **2.4 Empirical Review**

The empirical research aims to shed light on the connections between four separate independent variables: the scope of work of the internal auditor, access to audit evidence, level of reporting, and the delivery 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 shed more light on them due to this research.

### **2.4.1 Scope of Work and Internal Audit Effectiveness**

Audit scope and independence are mutually beneficial, supported by the IPPF's 1110.A1 standard, 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. Similarly, 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. By examining audits conducted in the Omani public sector, the researchers discovered a significant but weak 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. Research conducted by William et al., (2013) and Sakour and Laila (2015) come to a similar conclusion, stating that the effectiveness of the audit function is influenced by the amount of independence and suitable financial resources. According to the Basel Committee (2012), the functional scope of an audit must incorporate the whole of the company to provide the board with the ability to carry out its responsibilities. They stress that the audit function should independently define the extent of its responsibilities to retain its independence. However, Shamki and Alhajri (2017) contend that the scope of audit activity does not validate a solid statistically significant relationship with the effectiveness of internal audits.

According to Hellman (2011), chief financial officers routinely attempt to influence the selection of audit scope, which negatively influences auditors' independence. 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 audits.

#### **2.4.2 Access to Audit Evidence and Internal Audit Effectiveness**

Auditor personnel must have unrestrained access to relevant data to improve the effectiveness of internal audits. ISPPA 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 and access to documents. The CIAA (2015) agrees with this assessment and asserts that the effectiveness of an audit may be improved when obstructions do not hinder it. Alzeban and Sawan (2013) researched the government sector in Saudi Arabia and concluded that audit independence may be attained via various channels. Among them are the unfettered determination of the project's scope and complete access to documents and staff.

Arena (2013) contributes to the ongoing study by emphasizing the need to guarantee access to financial records, statements, and other essential information to achieve higher efficiency levels. 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 for audits to succeed. This research focuses on public TVET institutions in Western Kenya. It seeks to evaluate how access to audit evidence, represented by the variable X2 in a linear regression model, affects the effectiveness of internal audits.

### **2.4.3 Level of Reporting and Internal Audit Effectiveness**

The ISPPIA guidelines clarify the structural requirements that must be met to ensure auditors' independence 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 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 requirement to the organization's board of directors. To elaborate, IPPF standard 1110 (2017) specifies the auditor's requirements. To ascertain organizational autonomy, the audit team has to provide written guarantees to the board annually, if not more often.

These kinds of reporting paradigms are helpful in the process of offering auditors a significant amount of functional freedom. This independence extends across several 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. 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 in several different research studies. According to Alzeban and Gwilliam (2012), solid reporting architecture significantly magnifies audit effectiveness. In a more in-depth explanation, George et al. (2015) clarify 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 must report managerially to senior executives and functionally to the board of directors. The authors of the study, as mentioned above, echo this view. Independence and efficiency 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 report to an audit committee functionally. In particular, organizations with auditors who report to audit committees perform better in audit effectiveness than organizations that do not have such committees. Regarding internal auditing, the management level to whom auditors report is one of the most significant aspects in defining their success. Within the setting of Belgium, Sarens and De Beelde (2006) were able to peel back the layers of this connection.

Salehi (2016) acknowledged this research. They observed that the strength of an audit committee often determines the quality of the committee's engagement with internal auditors. Salehi provides an additional layer by proposing that a combination of objectivity and independence may fuel the efficiency of audits. He recommends a split reporting structure to achieve this synergy, 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 research findings came to a similar conclusion: the reporting stratum of the auditors has a significant impact on their efficacy, particularly in the management of public-sector administrations. The research investigates how

the level of reporting, which the X3 denotes in a linear regression model, affects the effectiveness of the internal audits performed at these educational institutions.

#### **2.4.4 Provision of Non-Audit Services and Internal Audit Effectiveness**

The question of whether or not non-audit services may affect internal audit responsibilities has been debated across the relevant literature. Chukwunedu and Okafor (2014) assert that undertaking these activities restrains the government's ability to act accurately. When one considers corporate scandals like the notorious United States Enron catastrophe, the auditors' lack of independence becomes immediately deceptive. Hussein and Abdelmohsen (2018) state that unduly high non-audit service costs are the major determinants of inefficient audits. Conversely, Canning and Gwilliam (2010) observe that auditors' perceived autonomy and efficiency tend to lose value when conducting functions unrelated to their normal responsibilities.

The authors DeFord et al. (2010) offer a counter-argument. From their research findings, the authors established that the provision of non-audit services does not always compromise the independence of the internal audit function. Albaqali and Kukreja (2017) examined the audit environment in Bahrain and expanded on the argument that the provision of non-audit services undermines the independence of auditors, which in turn leads to audit failures. This is similar to the Basel Committee (2012), which states auditors should not offer other services outside their mandate. In particular, the caution issued by the Committee banishes the employee from planning, selecting, or implementing internal control measures. The study that Anichebe (2010) conducted in the Nigerian context brings another dimension to the matter. Similarly, it can be noted that, in this context, auditors seem to allow any services except those beyond their scope of practice as long as there are engagement letters (Nwaobia et al., 2016). Anichebe contends

that this practice runs smack into the standards of independence already in place because there are not enough trained accountants to go around; the same auditor must wear two hats: they must also compile and review the company's financial statements.

In the opinion of Kimotho (2014), the internal auditor's engagement in non-audit tasks complicates the issue of the auditor's independence and thus hampers the discharge of the auditor's responsibilities. Similarly, Delai and Omri (2016) state that preventing non-audit services helps the auditor not to be exposed to the threat of self-review, which might influence the auditor's impartiality. Likewise, Sobrinho and Bortolon (2016) came up with another perspective by studying 154 Brazilian firms. They argue that non-audit services do not in any way compromise the position of the auditor as being independent. This is in agreement with Hay et al. (2016), who note that new jobs do not compromise the minds and appearances of auditors because auditors can work on multiple tasks simultaneously.

Thus, the study seeks to establish the relationship between the provision of non-audit services captured by the X4 variable of a linear regression model and the effectiveness of the internal auditing process.

#### **2.4.5 Internal Audit Independence and Internal Audit Effectiveness**

An essential part of an auditor's job is navigating the intricate details 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 establishment's guidelines, if it is to maintain any semblance of actual effectiveness. Kadondi (2012) puts forward that an auditing process hampered by a lack of independence reduces the possibility that it will have a good influence on the organization.



Ahmad et al., (2009) researched Malaysia's auditing culture and came up with a profound realization. They found that autonomy significantly impacts the effectiveness of internal auditing, particularly in terms of auditor objectivity. Dibia propounded a little swing in the other direction (2016). Since auditors are 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 punishment. The argument presented by Dibia helps to shed light on the dichotomy of auditors serving as both workers and watchdogs. The tension produced due to this dynamic validates 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 allow 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 remains 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) provide a warning tale: When auditors lose their independence, their scope and ability to perform effectively 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 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 (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 quality of the report. The statement made by the Financial Knowledge Bank (2016) hints that possible landmine 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 to anticipate the impending hazards 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 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 audit committee's job 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. Further, Rudhani

et al., (2017) assert that the independence of internal audits has a positive relationship with audit effectiveness, but they are not central factors of efficiency compared to audit quality.

As ISPPIA (2017) described, the most important concept for achieving maximum effectiveness in internal auditing is contingent on several 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) elaborate more 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). Lenz, et al., (2017) indicated that the autonomy of auditors influenced auditors' effectiveness but not to a greater degree than relationships between senior management officials and audit executives in the organization.

In light of the available empirical corpus, the purpose was to fill a glaring vacuum in the academic literature, specifically emphasizing 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 efficiency 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**

<b>Author/ Year</b>	<b>Focus of study</b>	<b>Research Methodology</b>	<b>Findings</b>	<b>Knowledge gaps/Filling the gap</b>
Ahmad et al., (2009)	The effectiveness of Internal Audit in Malaysian government	Exploratory research design Primary data; Questionnaire (Respondents- internal auditors in the Malaysian public sector) Correlation analysis Sample size- 99 respondents	Audit quality, top management support, auditor independence, and interaction with audit committees positively and significantly influence internal audit effectiveness.	i)The study employed an exploratory research design, whereas the present study used a causal research design. ii) The respondents of the study were internal auditors of the Malaysian government. The current study included internal auditors, senior-level managers, and audit committees in Public TVETs in western Kenya as respondents. iii)The study used correlation analysis, whereas the 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	Managerial support, audit staff competence, training, and	i)The study utilized a descriptive research design, while the current study employed a causal one.

		auditors and managers in the Saudi public sector) Multiple Regression analysis Sample size-203 managers and 239 internal auditors	auditor independence significantly impact internal audit effectiveness.	ii) Respondents included internal auditors and managers in the public sector. The 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 -Sample size-50 employees	-Limitation of scope, reporting structure, and the traditional role of internal auditors affects the independence of internal auditors.	i) The study employed a descriptive research design, but the present study used a causal research design. ii) Research was limited to one TVET institution in Kenya. The current study focused on more than one Public TVET institution in Western Kenya. iii) The sample size was 50 employees, whereas the current study used a sample size of 89 respondents.
Mustika, (2015)	Factors Affecting Internal Audit	Descriptive survey design	Auditor competence,	i) The study utilized a descriptive survey

	Effectiveness in Organizations, Java Province, Indonesia.	Literature review: Contingency theory Primary data: Questionnaire (internal auditors of the inspectorate of central Java) Multiple regression analysis Sample size- 33 internal auditors	independence, and auditee support positively and significantly affect internal audit effectiveness.	design, but the current study used a causal research design. ii) The study used contingency theory as the main theory, whereas the current study will use agency theory as the main theory. iii) The sample size was 33 respondents, but the 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 techniques Linear regression analysis Sample size-46 internal auditors in Kirinyaga County government	Audit work environment, internal audit independence, and monitoring of internal audits have positive and significant effects on internal audit effectiveness.	i)The study used a descriptive survey design, while the current study used a causal research design. ii) The study used primary and secondary data, whereas the current study used primary data only through questionnaires. iii) The study's sample size was 46 respondents, whereas the 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 The sample size was 8 tertiary educational institutions, with 200 respondents.	Internal audit independence has a significant effect on audit effectiveness.	<p>i) The study used a descriptive survey research design, whereas the current study used a causal one.</p> <p>ii)The study respondents were internal auditors, finance staff, and registry staff, but the current study involved internal auditors, managers, and audit committee members of public TVETs in western Kenya.</p> <p>-The study used the Chi-square technique. The current study used regression analysis.</p> <p>iii)The study sampled 8 tertiary educational institutions. The current study will use 14 publicly registered TVET institutions in western Kenya.</p>

Source: Author's computation (2022)

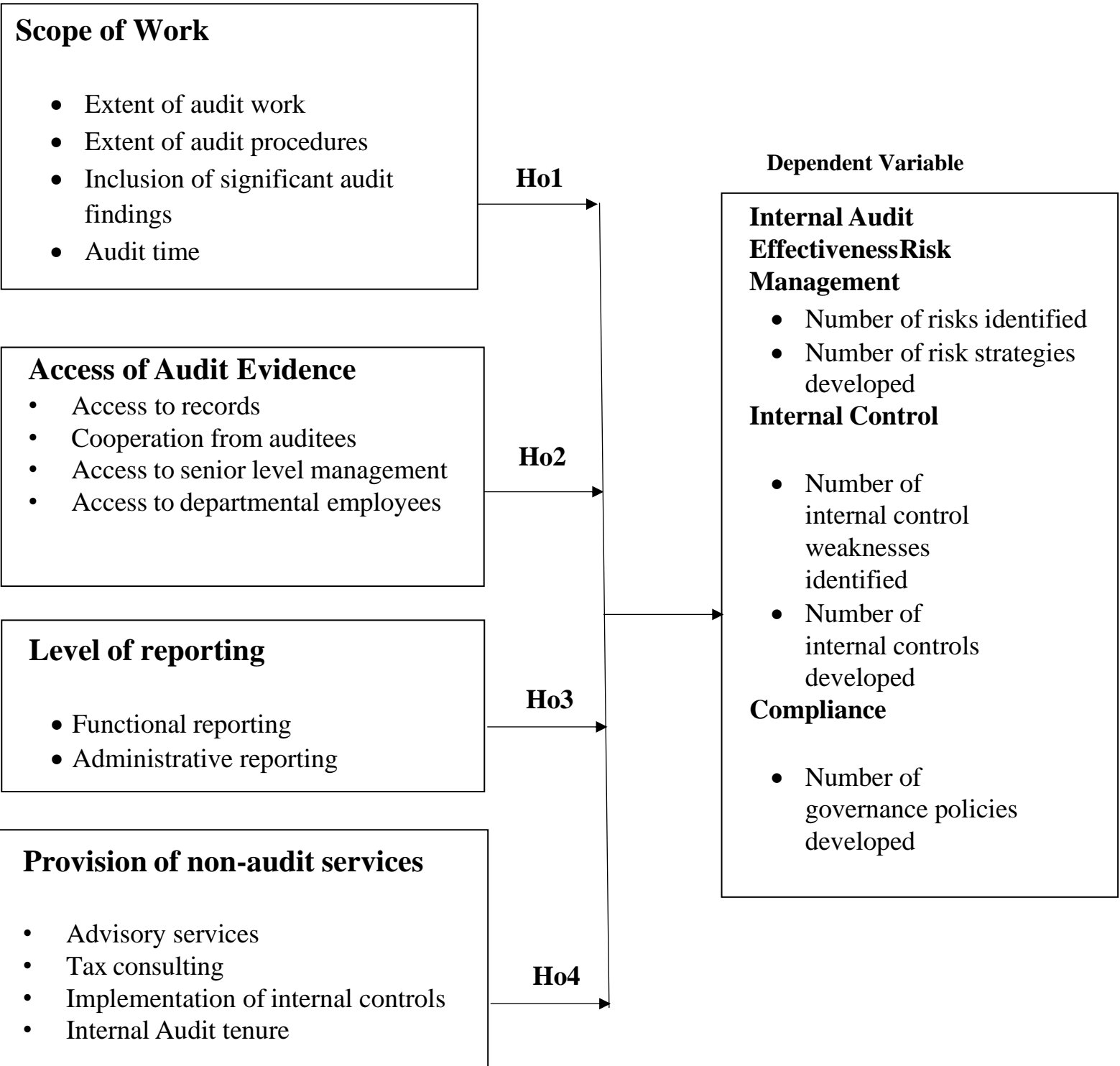
## **2.6 Conceptual Framework**

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



**Fig 2.1: Conceptual Framework**

**Internal Audit Independence**



Source: Developed from the Reviewed Literature by Author (2023)

## **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 being analyzed and elaborates on the research design used. It goes further into the demographic it is aimed at and the sample strategies used. In addition, it explains the methods of data collection and the following analytical process. Notable is 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 four different counties: Kakamega, Bungoma, Busia, and Vihiga. At the time of research, the terrain was home to 14 Public TVET Institutions, all now functioning following official accreditation and license (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 outcomes. On the one hand, the variety of TVET Institutions provided the research with a wide and representative population 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 about the independence and effectiveness of internal audits. As a result of this shortage, the region became a rich ground for developing new academic inquiry.

### **3.3 Research Design**

As stated by Cresswell (2014), a research design is a roadmap that tracks the researcher through 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 between the various variables. The purpose of a causal study is not just to identify pre-existing connections but also to quantify how one variable influence another (Bowen et al., 2017). For the purpose at hand, which centered on the effectiveness of internal audits carried out at public TVET institutions 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 audits and their effectiveness in the context of the intended academic environment.

### **3.4 Target Population**

The phrase "target population" was described by Tian, Cai, Claggett, and Wei (2013) as an ensemble of components that might either be finite or unbounded. According to the data provided by KATTI (2022), the Western region of Kenya has 14 publicly licensed TVET institutions encompassed in the study. Noteworthy is the fact that the research focused on a target demographic 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 in Western Kenya.

These individuals are the ones who, in essence, shape the internal audit unit to guarantee its autonomy and, therefore, its effectiveness. Individuals such as Principals and Deputy Principals who are in charge of Academics and Training, along with those 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, the target population had more diversity, as noted in Table 3.1.

**Table 3.1: Target Population**

<b>Public TVET Institutions</b>	<b>Senior level management</b>	<b>Audit Committee</b>	<b>Internal auditors</b>	<b>Total</b>
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
<b>TOTAL</b>	<b>50</b>	<b>52</b>	<b>14</b>	<b>116</b>

**Source: Author's Compilation from Public TVET Institutions, Western, Kenya (2023)**

### 3.5 Sampling Design And Sampling Procedure

A combination of stratified and simple random sampling approaches was utilized to understand the details of the research better. This two-pronged strategy consisted of dividing the target population of 116 people into two distinct groups, or "strata," based on their functions (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 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's method determined that 89 respondents would be an appropriate sample size.

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

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)

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

$$= \frac{111.389}{1}$$

$$\begin{aligned}
& 0.2875 + 0.96025 \\
= & 89.27 \\
S= & 89
\end{aligned}$$

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

**Table 3.2: Sampling Frame**

<b>Stratum</b>	<b>Population</b>	<b>Sample</b>
Senior Level Management	50	50/116 X 89 = 38.36  <b>= 38</b>
Audit Committee	52	52/116 X 89 = 39.89  <b>= 40</b>
Internal Auditors	14	14/116 X 89 = 10.74  <b>= 11</b>
	N= 116	

### **3.6 Data Collection Instruments**

The research depends heavily on primary data, which refers to unfiltered information obtained directly from the point of origin (Kothari, 2008). A structured, closed-ended questionnaire was the primary tool used to assemble this information. Why choose a limited approach? Saunders et al., (2016) state that closed-ended questionnaires are the key to obtaining focused, streamlined responses that are simple to sort through in the future. To maximize ease of use while also maximizing clarity and dependability, the questionnaire underwent extensive polishing. Questionnaires are 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 portions for optimal use of

space and time. The first section, Section A, was a broad data pool of respondents' general information. 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 test aimed to determine the instruments' validity and reliability, as Dikko (2016) recommended. The location was Kisumu National Polytechnic in the Nyanza region of Kenya. Because of its numerous advantages, Kisumu National Polytechnic was chosen 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. Eleven participants placed 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 they provided was extremely valuable. A more concise and tidier questionnaire was created due to the identification and subsequent elimination of items that presented difficulties. The ambiguities disappeared, the questions got more direct, and the coding process became easier.

#### **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 practical application requirements (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 content validity. It served as a gauge for determining the extent to which the research goals were satisfied by the data obtained. The research instruments were crafted with attention to detail, which guaranteed they would be effective in data gathering. Experts in academicians and supervisors from the university were approached for their professional assessments to support the study further.

### **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 several trials. This is a concept that pertains to the arena of research. Cronbach's alpha coefficient is utilized to evaluate this quality. This statistical metric 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 values greater than 0.7, the more dependable the instrument. According to Ahmad et al., (2015), there is an alpha range that is denoted by certain quality thresholds: exceptional if it 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 over 0.7, as noted in Table 3.3.

**Table 3.3: Reliability Statistics**

<b>Determinants</b>	<b>Number of Items</b>	<b>Cronbach's Alpha</b>
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 under scrutiny. The audit work scope showed an exceptional reliability level, 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. When taken as a whole, these results provide strong evidence for internal consistency across all of the variables, validating that the data-gathering equipment was not simply dependable but also well-designed to accomplish the research goals.

### **3.8 Data Analysis and Presentation Techniques**

A systematic routine was followed while examining the data. Before 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). Correlation analysis and multiple regression analysis were utilized to evaluate the null hypothesis. The research was conducted at a significance level of 5%, and the results are only considered

convincing if they can pass this statistical barrier. Variable Inflation Factor, often known as VIF, performed the work of tackling multi-collinearity difficulties. The model that was employed to test the study hypotheses is noted below:

### **Summary of Statistical Model**

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

Where:  $\varepsilon$  = 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<sub>1</sub> is Scope of work

X<sub>2</sub> is Access of audit evidence

X<sub>3</sub> is Level of reporting

X<sub>4</sub> is Provision of non-audit services

$\beta_0$  = the constant

$\beta_1, \dots, \beta_4$  = Regression coefficient of the four variables.

The data met the below mentioned assumptions to conduct a linear regression analysis:

**Normality:** This research is based on the premise that the residuals of the variables adhere to a normal distribution. This is the most essential assumption. In more straightforward language, the prediction errors for the dependent variable, denoted as Y, should come close to fitting a normal curve. Bryman and Cramer (2017) emphasize the utmost significance of the normalcy assumption, particularly concerning developing reference intervals for the variables under discussion. If this assumption is not satisfied, it will be impossible to reach findings that can be relied upon or that are true. This investigation used normal Q-Q plots to test the assumption of normality. The premise of data normality has empirical support if the residuals have a normal distribution around the scores of the dependent variables.

**Linearity:** Linearity requires independent and dependent variables to have a linear connection for linear regression. Since linear regression is susceptible to the outlier effects, it is vital to check for outliers. This study, therefore, used scatter plots to determine the linear connection between the variables, as it is the most worthwhile tool to test for linearity (Chattreje & Hadi, 2015).

**Homoscedasticity:** In statistical terminology, homoscedasticity refers to situations where error terms are consistent across the spectrum of independent variables. Conversely, heteroscedasticity occurs when the variance of these error terms varies in a way inconsistent across the levels of the independent variables (Gelfand, 2015). In the present study, the statistical method that was used to determine 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 several 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.

**Multicollinearity:** Multicollinearity is a circumstance in which two or more predictors within a regression model exhibit a strong association (Kothari, 2008). Because of this circumstance, interpretative analysis can be skewed negatively, reducing the validity of the study outcomes. The Variance Inflation Factor (VIF) and tolerance measures were used in this research project to determine 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 influence on the model. The values between 1 and 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 to test the hypothesis.

**Table 3.3: Summary of Hypotheses Testing**

	<b>Hypothesis Statement</b>	<b>Hypothesis Testing</b>	<b>Model</b>
<b>i</b>	<b>H<sub>01</sub>:</b> Scope of work of internal auditors has no significant effect on internal audit effectiveness in Public TVET Institutions in the Western region.	H <sub>01</sub> : $\beta_1 = 0$ H <sub>0A</sub> : $\beta_1 \neq 0$ Reject H <sub>01</sub> if $\beta_1 \neq 0$ and P value $\leq 0.05$ otherwise fail to reject H <sub>01</sub> if $\beta_1 = 0$ and P value $> \alpha$ ( $\alpha = 0.05$ )	$Y = \beta_0 + \beta_1 X_1 + \epsilon$
<b>ii</b>	<b>H<sub>02</sub>:</b> Access to audit evidence has no significant effect on internal audit effectiveness in Public TVET Institutions in the Western region.	H <sub>02</sub> : $\beta_2 = 0$ H <sub>0A</sub> : $\beta_2 \neq 0$ Reject H <sub>02</sub> if $\beta_2 \neq 0$ and P value $\leq 0.05$ otherwise fail to reject H <sub>02</sub> if $\beta_2 = 0$ and P value $> \alpha$ ( $\alpha = 0.05$ )	$Y = \beta_0 + \beta_2 X_2 + \epsilon$
<b>iii</b>	<b>H<sub>03</sub>:</b> Internal auditors' reporting level has no significant effect on internal audit effectiveness in Public	H <sub>03</sub> : $\beta_3 = 0$ H <sub>0A</sub> : $\beta_3 \neq 0$ Reject H <sub>03</sub> if $\beta_3 \neq 0$ and P value $\leq 0.05$ otherwise fail to reject H <sub>03</sub> if $\beta_3 = 0$ and P value $> \alpha$ ( $\alpha = 0.05$ )	$Y = \beta_0 + \beta_3 X_3 + \epsilon$

	TVET Institutions in the Western region.		
<b>iv</b>	<b>H<sub>04</sub></b> : 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 $> \alpha$ ( $\alpha = 0.05$ )	$Y = \beta_0 + \beta_4 X_4 + \varepsilon$

### 3.10 Ethical Considerations

Obtaining several permissions was a necessary step before 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 acquiring a research permit from the National Commission of Science and Technology, known as NACOSTI. The appropriate authorities gave the go-ahead to proceed with the research 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 unwaveringly. 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 and the creators of the material were appropriately acknowledged. Scientific misconduct, which encompasses various 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. 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 to decipher the relevance of the data with 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. This quantitative summary aims to provide an encompassing picture of how the independence of internal audits affects the effectiveness of internal audits 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**

<b>Sample Size</b>	<b>Number</b>	<b>Percentage (%)</b>
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 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 all of the questions were 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 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 each participant held. The research proceeded to go further and made it possible to uncover the amount of experience that the respondents in the TVET environments had accumulated. 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 complete picture of who precisely is contributing to the intricate mechanisms of the 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 the Western region is shown in Table 4.2.

**Table 4.2: Functional Composition of Respondents**

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

**Source: Field Data (2023)**

The respondents in the Public TVET Institutions in the Western region comprised 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 an auditor’s effectiveness in the Public TVET Institutions in the western region of Kenya.

#### 4.2.3.2 Professional Qualification

The professional qualification of the respondents in public TVET Institutions in the Western region is as shown in Table 4.3:

**Table 4.3: Professional Qualification**

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

**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 collectively acceptable knowledge concerning the independence and effectiveness of the internal audit unit, which substantiates the legitimacy of the study's eventual conclusions.

#### **4.2.3.3 Level of Work Experience**

Investigating how long the TVET institutions had employed respondents 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 audits. In addition, the length of time they've been with the institution may equip them with the experience and knowledge necessary to understand the internal audit function with regard to independence and effectiveness.

**Table 4.4: Level of Work Experience**

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

**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 of 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 shed 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 indicates "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 the 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 internal auditor wholly determines the extent of audit procedures used during auditing	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 the scope of work affected the effectiveness of internal audits in public TVET institutions located in Western Kenya.

The outcome in Table 4.5 suggests 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 the 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. 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 concur 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**

	<b>Mean</b>	<b>Std. Deviation</b>
Internal auditor has full access to records and information required during audit	3.8824	.82248
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). The significant deviation value shows a strikingly disparate set of viewpoints. 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 research by academics such as Delai and Omri (2016) and Dittenhofer (2011), the effectiveness of the internal audit unit needs 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. Internal Audit Guidelines back the findings 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**

	<b>Mean</b>	<b>Std. Deviation</b>
The institution has an audit committee that is properly constituted as per the statutes	3.7529	.93740
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 the level of reporting on internal audit effectiveness. In particular, respondents did not have strong opinions about 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 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 on 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. ISPPA Standard 1100 (2017), which provides corroborating evidence for these findings, postulates that the best structure for internal audit functioning needs the head of an internal audit unit to report to an organizational level that makes it possible for the audit function to undertake its functions successfully.

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**

	<b>Mean</b>	<b>Std. Deviation</b>
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 the provision of non-audits on the effectiveness of internal audits in public TVET Institutions in Western Kenya.

Neutrality is indicated by internal auditors' offering of advisory services to senior management (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. On the subject of whether internal auditors implement internal controls on behalf of management, a (Mean= 1.2941, SD = 0.61380) indicates that respondents agree 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**

	<b>Mean</b>	<b>Std. Deviation</b>
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 concluding Table 4.9, one fact that stands out is the number of risks that internal auditors have detected throughout four years, ranging 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 the 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, particularly 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 last four years, the study found that the 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 on the governance policies that have been 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 to 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 Pearson Correlation Analysis

The study conducted correlation analysis by utilizing the Pearson correlation coefficient (r).

**Table 4.10: Correlation between Internal Audit Independence and Internal Audit Effectiveness**

		S.O.W	A.A.E	L.O.R	P.N.A.S	I.A.E
Scope of work	Pearson correlation	1				
	Sig.(2-tailed)					
	N	85				
Access to evidence	Pearson correlation	.492**	1			
	Sig.(2-tailed)	.000				
	N	85				
Level of reporting	Pearson correlation	.463**	.594**	1		
	Sig.(2-tailed)	.000	.000			
	N	85	85			
Provision of non-audit services	Pearson correlation	.487**	.439**	.450**	1	
	Sig.(2-tailed)	.000	.000	.000		
	N	85	85	85		
Internal audit effectiveness	Pearson correlation	.427**	.390**	.394**	.495**	1
	Sig.(2-tailed)	.000	.000	.000	.000	
	N	85	85	85	85	

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

When Table 4.10 is analyzed, it becomes clear that a moderately positive correlation exists between the 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 and a P-value that is less than 0.001. In addition, the results of the 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 the 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 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 strong 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, some outliers should be given some thought.

Access to audit evidence and internal audit effectiveness is shown to have a moderate relationship in these Public TVET Institutions in the Western region, Kenya, as indicated ( $R=0.390$ ,  $p<0.001$ ). 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) echo 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.

There is a considerable relationship between the level of reporting and internal audit effectiveness, notably in Public TVET Institutions in Western Kenya, with the R-value being 0.394 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. 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) lend more credence to the hypothesis by emphasizing that 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.

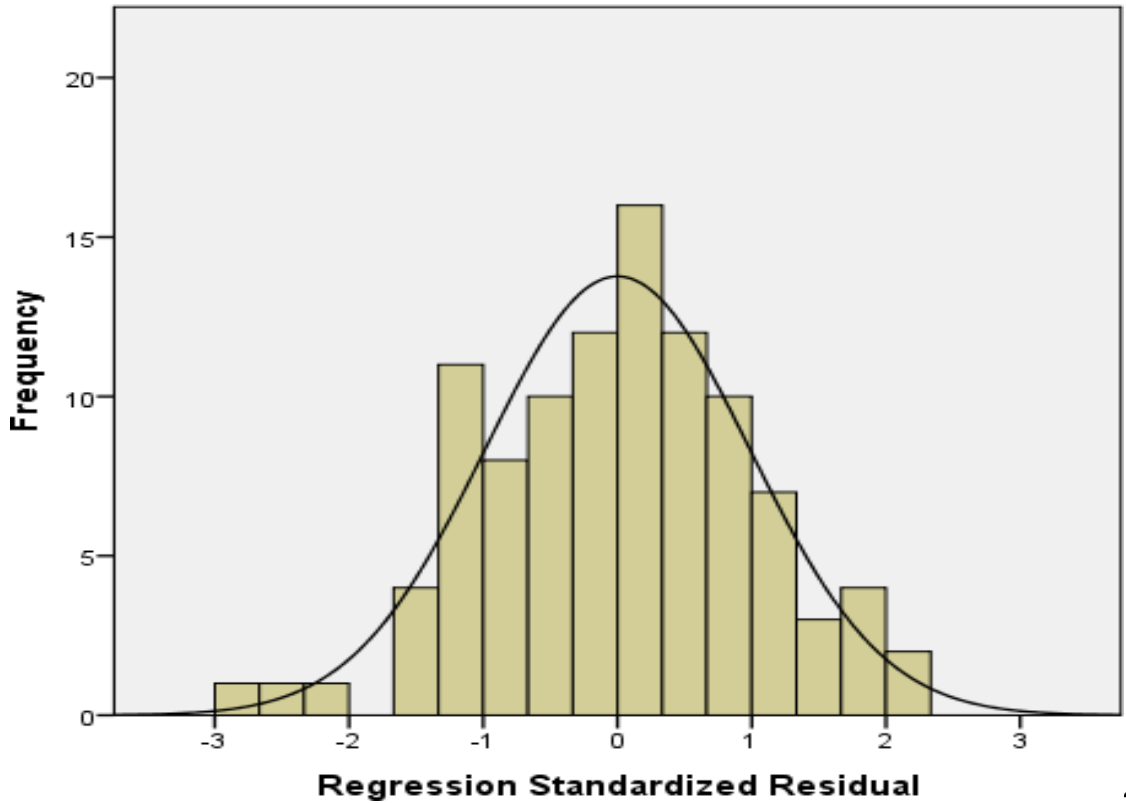
The results indicate that a moderate but positive link can be deduced between the provision of non-audit services and effectiveness based on the fact that the R-value is 0.495 and the significance level between them is  $p < 0.001$ . The findings lend credence to past research, in particular, the work 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's (2016) research, which 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 the 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 evidence points to a complicated terrain that this study sought to establish.

## **4.5 Diagnostic Test for Linear Regression Analyses**

### **4.5.1 Normality Test**

The use of rigorous statistical methods unquestionably supports the legitimacy of study findings. In their 2016 article, Saunders et al. express the relevance of normal data distribution as a cornerstone assumption in statistical analysis (Saunders et al., 2016). A significant departure from these limitations will often trigger warning signals, 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 utilizing normal Q-Q plots. The results in Figure 4.1 indicate that the divergence from normality was not significant compared with the approximation to the line of best fit. In light of this, it was proven that the normalcy assumption was correct.

**Figure: 4.1: Normal Curve for Regression Residual**

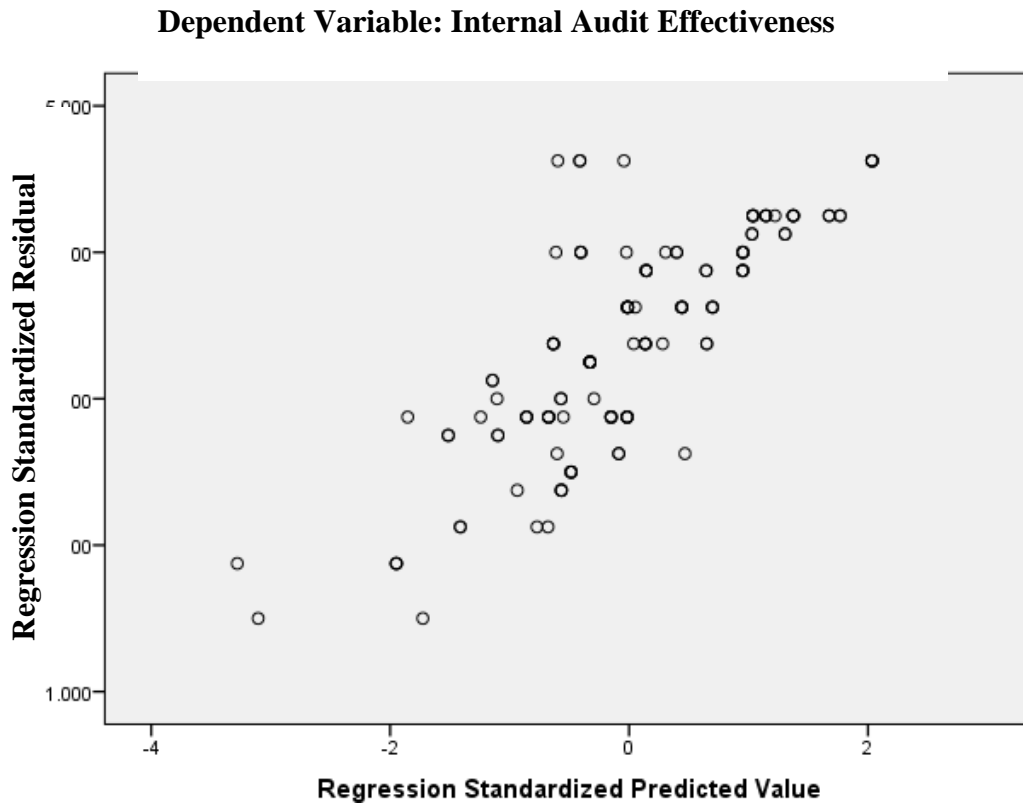


4.5.2

#### **4.5.2 Linearity Test**

The study employed scatter plots to investigate whether there was a linear relationship between internal audit independence and internal audit effectiveness. Scatter plots provide that there is a linear connection between variables if the structure of the data points ends up forming a straight line when plotted. The closer the data points appear to be forming a straight line on the plot, the stronger the linear relationship between the variables. Figure 4.2, therefore, supports that there is a positive linear relationship between the independent and dependent variables.

**Figure 4.2: Linearity Using Scatter Plots**



**Source: Field Data (2023)**

### **4.5.3 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 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. 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 4.11: Homoscedastic Test**

	<b>Levene Statistic</b>	<b>df1</b>	<b>df2</b>	<b>Sig.</b>
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 concluding Table 4.11, 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.

#### 4.5.4 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 a 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 4.12: Multicollinearity Test**

<b>Model</b>	<b>Collinearity Statistics</b>	
	<b>Tolerance</b>	<b>VIF</b>
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 provides 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, which Cooper and Schindler (2011) mention as indicative of the lack of multicollinearity.

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

#### **4.6 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 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-value to test its hypothesis in accordance with the analytical framework that was suggested by (Carolynne et al., 2020). If the P-value is significant, the null hypothesis will be rejected, which will confirm that internal audit independence has a significant effect on internal audit effectiveness. On the other hand, if the P-value is not significant, the research will fail to reject the null hypothesis.

#### **4.7 Multiple Linear Regression of Internal Audit Effectiveness**

Within the scope of this study, the major objective was to establish the effect of internal audit independence on internal audit effectiveness in public TVET institutions in the western region of 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 confirm or reject the null hypotheses definitively. 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. 13: Model Summary Internal Audit Independence and Effectiveness**

Model	R	R <sup>2</sup>	Adj R <sup>2</sup>	St. Error of the estimate	Change Statistics			
					R <sup>2</sup> Change	F Change	df	Sig. F Change
1	.559 <sup>a</sup>	.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 4.13 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 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  $(4,80) = 9.106$  confirms the model's ability 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 4.14: ANOVA between Internal Audit Independence and Effectiveness**

Model		Sum of Squares	Df	Mean Square	F	Sig
1	Regression	433.376	4	108.344	9.106	.000 <sup>b</sup>
	Residual	951.847	80	11.898		
	Total	1385.224	84			

a. Dependent Variable: Internal Audit Effectiveness

b. Predictors: (Constant), scope of work, access to audit evidence, level of reporting provision of non-audit services

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**Source: Field Data (2023)**

The F-statistic also shows strong evidence for the model's ability to account for variations in the dependent variable. The goodness of fit of the model is supported by the F test, which yields a value,  $(4,84) = 9.106$ ,  $P < 0.001$ . This firmly establishes internal audit independence as an essential component in determining the effectiveness of internal audit.

**Table 4. 15: Coefficients of the Independent Variables and Internal Audit Effectiveness**

Model	Unstandardized Coefficients		Standardized Coefficients		
	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 shown in Table 4.15 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. Therefore, at a 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 a significant effect on internal audit effectiveness in Public TVET Institutions in Western region, Kenya.*

Secondly, access to audit evidence is another factor that stands out as a significant predictor of the effectiveness of internal audit. This is supported by a p-value of 0.022, which is lower than the significance criterion of 0.05 ( $p=0.022 < 0.05$ ). Hence, at a 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 a significant effect on internal audit effectiveness in Public TVET Institutions in Western region, Kenya.* Thirdly, the level of reporting is shown to be a significant predictor of internal audit effectiveness with a p-value of 0.020, which is once again lower than the significance criterion of 0.05 ( $p=0.020 < 0.05$ ). As a result, at a 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 a significant effect on internal audit effectiveness in Public TVET Institutions in Western region, Kenya.* Lastly, the 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 ( $p=0.002 < 0.05$ ). On that account, at a 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 a significant effect on internal audit effectiveness in Public TVET Institutions in Western region, Kenya.* 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 4.15:

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

$X_1$ = 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 the 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, 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 external auditors qualified. 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.

To further strengthen the effectiveness of internal audits 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 Azzone (2009) agree with the assertion that internal auditors should be given the authority to access records of accounts, 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.

The 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 the 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) point 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, the 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 a 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 to improve the effectiveness of internal auditing within government TVET Institutions in the western region of Kenya. When providing audit services, it is vital to take this precaution to avoid any compromise to their independence.



The findings align with Albaqali and Kukreja (2017) study that the provision of non-audit functions had a major impact in degrading auditor independence, which might lead to audit failures. However, it is crucial to highlight that there is contradicting research in this area. 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 the effect of internal audit independence on internal audit effectiveness in public Technical and Vocational Education and Training institutions in the Western region of Kenya. To achieve this, certain specific objectives and certain goals have to be devised. They included establishing the effect of the scope of audit work on internal audit effectiveness, determining the effect of access to audit evidence on internal audit effectiveness, establishing the effect of level of reporting on internal audit effectiveness, and examining the effect of the 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 the scope of work of internal auditors on the effectiveness of public TVET institutions in Western Kenya. The findings of the survey showed that study participants largely agreed that internal auditors at these institutions could 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 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 statistically significant association between scope of work and internal audit effectiveness ( $p=0.012<0.05$ ). This lends credence to the idea that the extent of the audit work has a significant and positive effect on internal audit effectiveness. Further, when all other parameters are kept the same, an increase of one unit in the scope of audit work leads to a 0.481 ( $1=0.481$ ) improvement in the effectiveness of internal audits in Public TVET Institutions in the western area of Kenya. The first null hypothesis,  $H_{01}$ : *Scope of work of internal auditors has no significant influence on 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 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 is 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. When 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 and, 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 significant relationship between access to audit evidence and internal audit effectiveness ( $p=0.022<0.05$ ). 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 to a 0.419 ( $1 = 0.419$ ) 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 the level of reporting on internal audit effectiveness in public TVET institutions in Western Kenya. According to the findings, the respondents demonstrated neutrality on whether the public TVET institutions had audit committees 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 statistically significant relationship between the level of reporting and internal audit effectiveness ( $p=0.020<0.05$ ). A one-unit increase in the level of reporting corresponds to a 0.448 ( $1=0.448$ ) 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 the third null hypothesis, *HO<sub>3</sub>: 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 effect the effectiveness of the provision of non-audit services in public TVET institutions in the western region of 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 the internal auditor's 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 ( $p=0.002<0.05$ ). 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 to a 0.689( $1=0.689$ ) 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 the fourth null hypothesis, known as *HO<sub>4</sub>: 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 the limitation of the internal auditor's scope of work can adversely affect the internal audit effectiveness. As witnessed in this study, most auditors in TVET Institutions in the Western region, Kenya, have freedom in their scope of work to a fair extent. However, the inclusion of significant findings in their reports without interference from senior management has been a major setback, thereby affecting the effectiveness of the internal audit function. Scope of audit work has a significant effect on internal audit effectiveness. Therefore, non-limitation of the internal auditor's scope of work would ensure significant improvement in internal audit effectiveness in these Public TVET organizations.

Internal auditors in public TVET institutions in the western region of Kenya have fair access to audit evidence. There is still some hindrance in access of records, access to senior level management and departmental employees' hence causing ineffectiveness of internal audit function. Access to audit evidence has a 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.

The level of internal auditor reporting 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 the Western region, Kenya has ensured that internal auditors report functionally to the audit committee and administratively to the senior level of governance, but there are still some drawbacks in the reporting structure of internal auditors. This is characterized by the 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 a significant effect on internal audit effectiveness in public TVET institutions in Western region, Kenya. Therefore, a proper reporting structure would ensure significant improvement in internal audit effectiveness in these Public TVET Institutions in the Western region of 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. The provision of non-audit services has a significant effect on internal audit effectiveness; hence, the 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 of the study. Public TVET Institutions should uphold internal audit function by ensuring internal auditors possess the liberty to determine the extent of audit work and the extent of procedures to be used during the audit process. The study also recommends that guidelines be put in place regarding senior-level managers who interfere with the inclusion of significant audit findings. This would ensure non-limitation in the scope of the auditor's work, thereby enhancing the effectiveness of the internal audit function. Public TVET Institutions need to design measures that would ensure the internal auditors access all information and records, including senior management and departmental employees when conducting audit functions. In as much as there are external policies that allow auditors to access relevant

information and records during audits, the institutions need to develop their internal policies in line with the existing government policies.

The study also recommends the establishment of legitimate audit committees as per the PFMA (2012) that would ensure the achievement of independence and, therefore, the effectiveness of internal auditors. This would also ensure that internal auditors strictly report functionally to the audit committee and administratively to the senior management. Internal auditors can be sensitized through seminars and workshops 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 the Western region of 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 and establish alignment with them.

This research endeavor established the effect of internal audit independence on internal audit effectiveness in Public TVET Institutions in the Western region of Kenya. The coefficient of determination ( $R^2 = 0.313$ ) was 0.313, which indicates that the four predictor variables can illustrate 31.3% of the deviation in the internal audit effectiveness, 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 exist 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 functions. Prospective research can investigate the merits that Public TVET Institutions can leverage from fostering effective internal audit functions.

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## **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)

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

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

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

	<b>Statement</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
		<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>
<b>S/NO</b>	<b>Provision of non-audit services</b>					
<b>1</b>	Internal auditor offers advisory services to the senior level management					
<b>2</b>	Internal auditor offers tax consulting services to the Finance office in the institution					
<b>3</b>	Internal auditor implements internal controls in the institution on behalf of management					
<b>4</b>	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**

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

<b>S/NO</b>	<b>NAME OF PUBLIC TVET INSTITUTION</b>	<b>COUNTY</b>
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.

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## APPENDIX VI: UNIVERSITY RESEARCH AUTHORIZATION



MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

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P.O Box 190  
Kakamega – 50100  
Kenya

Directorate of Postgraduate Studies

Ref: MMU/COR: 509099

22<sup>nd</sup> February 2023

Aluvala Beryl Lihavi  
MBA/G/01-70021/2020,  
P.O. Box 190-50100,  
KAKAMEGA.

Dear, Ms. Lihavi

**RE: APPROVAL OF PROPOSAL**

I am pleased to inform you that the Directorate of Postgraduate Studies has considered and approved your Masters proposal entitled '*Internal Audit Independence and Internal Audit Effectiveness in Public, Technical and Vocational Education Training Institutions in Western Region, Kenya*' and appointed the following as supervisors:

1. Prof. Charles Tibbs - SOBE, MMUST
2. Dr. Fredrick Kiongera - SOBE, MMUST

You are required to submit through your supervisor(s) progress reports every three months to the Director Postgraduate Studies. Such reports should be copied to the following: Chairman, School of Business and Economics Graduate Studies Committee and Chairman, Accounting and Finance Department. Kindly adhere to research ethics consideration in conducting research.

It is the policy and regulations of the University that you observe a deadline of two years from the date of registration to complete your Master's thesis. Do not hesitate to consult this office in case of any problem encountered in the course of your work.

We wish you the best in your research and hope the study will make original contribution to knowledge.

Yours Sincerely,  
  
MASINDE MULIRO UNIVERSITY  
OF SCIENCE AND TECHNOLOGY  
DIRECTORATE OF POSTGRADUATE STUDIES  
P.O. Box 190-50100, KAKAMEGA (K)  
Sign:.....

Prof. Stephen O. Odebero, PhD, FIEEP  
DIRECTOR, DIRECTORATE OF POSTGRADUATE STUDIES