

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI

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**EFFECT OF EXTRINSIC FACTORS ON INTERNAL AUDIT EFFECTIVENESS IN
PUBLIC SECTOR ORGANISATIONS: A CASE STUDY OF UPPER WEST REGION.**

BY:

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DECLARATION

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief and that, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma at Kwame Nkrumah University of Science and Technology, Kumasi, or any other educational institution, except where due acknowledgement is made in.

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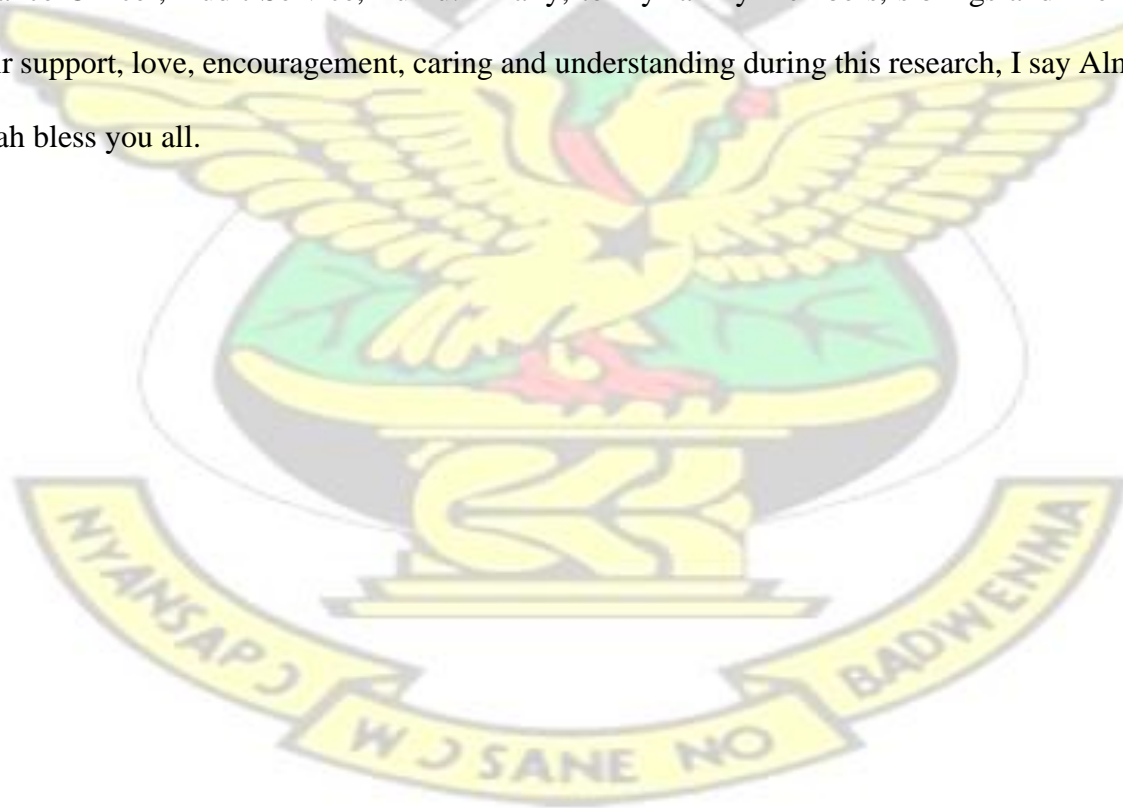
DEDICATION

This work is dedicated to my lovely Mother, my Sweetheart Mrs. Rafia Kpalakuso and my three lovely daughters Banyi, Madoji and Matuweamu for their support during this course of study.



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I am solely responsible for all criticisms from this material but I wish to share the good aspect with the following people. I wish to express my utmost heartfelt thanks to the Almighty Allah for the protection; guidance, direction and providing us with wisdom which enabled me write this research. Also, I am deeply indebted and thankful to Mr. Roland Ib-ku, my supervisor, who untiring and invaluable efforts have been the brain behind the completion of this work. In fact, his sense of direction, dedication, patience and guidance throughout the period of the study led to the success of this dissertation. I appreciate the support given to me by the Internal Auditors of Upper West Region for providing me with the needed information for the data analysis of this study. I also acknowledge the fatherly advice and guidance given to me by Mr. Frank Gyasi Ameyaw, Finance Officer, Audit Service, Tumu. Finally, to my family members, siblings and friends for their support, love, encouragement, caring and understanding during this research, I say Almighty Allah bless you all.



ABSTRACT

The rise in financial scandals in recent times in government institutions and entities despite the existence of internal audit units in the public sector has made the role of internal audit effectiveness to attract the attention of academic researchers, professional bodies, the financial community and regulators. The purpose of this study was to examine extrinsic factors that influence internal audit effectiveness in the Ghanaian Public Sector. A sample size of one hundred and fifty-five (155) is used for the study. An explanatory research design is used in this study. Stratified random sampling technique is used in selecting respondents. One of the objectives of this study is to examine the relationship between the extrinsic factors that influence internal audit effectiveness. Questionnaire is used as survey instrument to solicit data from the respondents. The study used multiple linear regression model to estimate the factors that influence internal audit effectiveness. The study found out that, independence of internal auditors, competence of internal auditors and top management support have significant positive influence on internal audit effectiveness in the public sector in the Upper West Region. However, task complexity has a negative influence on internal audit effectiveness. The result reveals that the level of internal audit effectiveness among the public sector institutions in the Upper West Region of Ghana was high. The finding also indicates that auditor's independence, competence, and management support drive internal audit effectiveness and that the internal auditor's propensity to perform effectively does not depend on task complexity. The study recommends that there should be regular training and development of internal auditors on new internal audit policies, rules and procedures and sharing of experiences among internal auditors across various public institutions and organization to enhance the competence level of the internal auditors.

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LIST OF ABBREVIATION



IA	Internal Audit
IAA	Internal Audit Agency
IAE	Internal Audit Effectiveness
IIA	Institute of Internal Auditors
MMDAs	Metropolitan, Municipals, Districts Assemblies
MDAs	Ministries, Departments and Agencies
GHS	Ghana Health Service
IPPF	International Professional Practices Framework for Internal Auditing
ICAG	Institute of Chartered Accountant Ghana
IASPPIA	International Standards for the Professional Practice of Internal Auditing
ISPPIA	International Standards for the Professional Practice of Internal Auditing
GDPR	General Data Protection Regulation

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Since it became necessary for a person to entrust another with the care of their business, the need for financial accountability has been present (Jung & Cho, 2022). Economic resource suppliers and the administration of the organization are two distinct entities in both the commercial and governmental sectors (Jung & Cho, 2022). The owners, therefore, required the management to account for their stewardship in the running of the organisation (Ta & Doan, 2022). However, the difficulties to monitor managers, the complexity and dynamics of the business environment, and the information asymmetry between the owners and management has compelled both the private and public sector to have internal audit operations to ensure strong corporate governance (Ta & Doan, 2022; Jung & Cho, 2022; Chang et al., 2019).

For instance, one founder of the Institute of Internal Auditors (IIA), Arthur E. Hald, argued that internal auditing should be a core component of every company's corporate governance framework and should be established as a separate role in order to ensure strong corporate governance (Ojra et al., 2020). In support of this claim, Jung & Cho (2022) posit that all businesses, but especially those with large environments, need internal audit units if they want to succeed. Additionally, to establish strong corporate governance, Abdullah and Mustafa (2020) used agency theory to demonstrate why it is in management's best interest to have a strong internal audit department.

The importance of internal auditing has grown because of recent business failures (Chang et al., 2019; Ojra et al., 2020). Ta & Doan (2022) made the case that the necessity for corporate monitoring has grown because of the failures, financial irregularities, and fraudulent actions that

took place at Enron, WorldCom, and other businesses. The study concluded that internal auditing plays a bigger part in corporate monitoring because of external audit failures related to these incidents. The most important element of the corporate governance system is thought to be the internal audit (Mexmonov, 2020). Internal audit has recently been characterized as improving the organization (Menzo et al., 2019). According to Chang et al. (2019), a company that adds value or has an internal audit unit exists to produce benefits or value for its owners, other stakeholders, clients, and customers.

According to Ojra et al. (2020), an internal audit is an objective, unbiased assurance and consulting activity that aims to provide value and improve an organization's operations. IA helps a firm achieve its objectives by using a methodical, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance systems (Menza et al., 2019; Mexmonov, 2020). According to Marfo-Yiadom et al. (2016), internal audits play a critical role in the organizational level business and financial reporting processes of profit and non-profit organizations, enhancing management responsibility and fostering public trust in the financial reporting process.

Like other emerging nations, Ghana prioritizes the public sector above the private one (Marfo-Yiadom et al., 2016). In Ghana, the government through the national budgets allocates funds to MMDAs, Ministries, departments, and other public agencies to provide socio-economic facilities to improve the economy (Kukuiah, 2019; Marfo-Yiadom et al., 2016). For instance, the public sector provides a range of services, including banking, education, and healthcare, among others, that is advantageous to the entire community and encourage equal access to such services (Kukuiah, 2019). This suggests the relevance of public organisations in Ghana (Kukuaih, 2019).

However, for these public organizations to thrive, internal audit effectiveness is paramount (Henry et al., 2022; Kukuiah, 2019; Eulerich et al., 2021). The proper operation of internal audits in any company (whether private or public sector) has been recognized to depend on several criteria, even though they play multiple functions and contribute to the organization and the public interest (Eulerich et al., 2021; Kukuiah, 2019). These factors have been divided into extrinsic (external) and intrinsic (internal) factors (Almahuzi, 2020; Kukuiah, 2019). Extrinsic factors, however, are the focus of this study. Extrinsic factors are those that are beyond IA control within the organization, according to Turetken et al. (2020).

Numerous studies have shown that several characteristics, including management support, IA competence, independence, and audit size among others influence the work of IA (Eulerich et al., 2021; Tahir et al., 2020; Nugroho, 2021; Salehi, 2016). Additionally, most studies highlight the existence of audit committees in organizations, stakeholder support, adequate staff, legal mandates, and professional audit standards (Islam & Bhuiyan 2021; Kukuiah, 2019). The expertise of the auditor and the caliber of the internal audit were other variables noted (Alzeban & Gwilliam, 2014).

Internal audit is still viewed by the public as being useless (Islam & Bhuiyan 2021; Menzo et al., 2019). IA's lack of effectiveness in the public sector may not be due to the skills or qualifications but it may be related to external variables that should be considered (Nedyalkova, 2019; Filfilan, 2022; Kukuiah, 2019). However, cultural factors and a nation's level of maturity can have an impact on internal audit procedures within government organizations (Kukuaih, 2019). IA can be hampered by both issues, making it more difficult for organizations to achieve goals and objectives, including those of governments (Filfilan, 2022). Against this background, this study examines extrinsic factors that influence internal audit effectiveness.

1.2 PROBLEM STATEMENT

Internal Audit is a key component of fiscal reforms implemented in Ghana (Kukuiah, 2019; Marfo-Yiadom et al., 2016). The Ghanaian government has taken several deliberate actions to stem the rising trend of financial crime and embezzlement of public funds (Kukuiah, 2019). As a result of these efforts, legislation in 2003 established an Internal Audit Agency to strengthen internal controls to minimize the theft of public resources and eliminate or reduce errors in financial records (Pelser et al., 2020). However, given the frequent reports in various national newspapers of misconduct, fraud, and misappropriation of public funds by Ghana's public sector, especially state government ministries, and agencies, therefore, concerns have been raised regarding the existence and effectiveness of IA (Pelser et al., 2020; Marfo-Yiadom et al., 2016).

For example, in 2021, a joint audit and coordination of the accounts of the Ministry of Finance, GRA, and CAGD, according to a report by Auditors General Directorate reveals that 3.26 billion GH of tax revenue is missing from these government accounts (Ghanaweb, 2022). This indicates a flaw in the internal audit function. Although internal audit has been studied almost as intensively as external audit, recent literature has increasingly emphasized its function as a value-added tool. A literature review conducted revealed that little attention was paid to the IAE in Ghana. As a result, several academics have called for further research on IAE (Menzo et al., 2019; Poltak et al., 2019; Salehi, 2016; Pelser et al., 2020 Islam & Bhuiyan 2021).

According to earlier research, knowing the variables affecting IAE depends on how well internal audit effectiveness is measured. However, there is not much information in the literature about how to quantify (Kukuiah, 2019; Rönkkö et al., 2018). The few studies that have been done in the Ghanaian setting have measured IAE using an external auditor's perception (Daniel et al., 2021; Owodo, 2016; Kukuiah, 2019). To widen the measurement criteria in the Ghanaian literature

setting, it is necessary to employ a new method to gauge IAE. Also, many studies have examined the factors that affect internal audit effectiveness in various contexts (Islam & Bhuiyan 2021; Menza et al., 2019; Nedyalkova, 2019; Filfilan, 2022). However, since there is no agreement in the internal audit literature regarding the factors influencing internal audit effectiveness, there is still a constant call for more research to empirically examine the factors that affect internal auditors' effectiveness in other jurisdictions (See: Lenz & Hahn, 2015; Ahmad, 2015; Turetken et al., 2020; Mpakaniye & Jean, 2022; Henry et al., 2022; Nedyalkova, 2019; Filfilan, 2022).

Although previous research has focused on IA independence, and competence among others, one additional crucial factor known as task complexity highlighted by the agency theory has not been investigated in the Ghanaian context. Therefore, by extending the study to include task complexity, this study seeks to add to the inconclusive literature in Ghana by investigating the effect of extrinsic factors on IAE in public organisations in the Upper West Region, Ghana.

1.3 OBJECTIVES OF THE STUDY

The research purpose is to investigate the nexus between extrinsic factors and IAE in the Upper West Region's public sector. The following are the study's precise goals:

1. To assess the level of internal audit effectiveness.
2. To investigate the determinants of IAE in the Upper West Region's public sector.
3. To examine the connection between extrinsic factors and the IAE in the public sector in the Upper West Region

1.4 RESEARCH QUESTIONS

1. What is the level of internal audit effectiveness?
2. What are the determinants of IAE?

3. What is the effect of extrinsic factors on IAE?

1.6 SIGNIFICANCE OF THE STUDY

The study's findings have a plethora of benefits. First, the study is particularly significant because its results will assist policymakers in better comprehending key factors that influence IAE in the public sector. This will enable them to design policies that will strengthen internal audit units and guarantee the efficient utilization of limited resources among the public organizations in Ghana.

Also, this finding limited literature Ghanaian context. In addition, the empirical data of this study can be used by academics, researchers, and students of Accounting and Finance to guide their future research. This study will spur many scholars to reconsider the efficacy, broadening their understanding of concerns and influencing policies for better internal audits.

By considering the impact variables, the researcher will provide recommendations that could have an impact on how the Upper West Region's public agencies develop and regulate their internal audit functions. The institution's administration may be strengthened because of bolstering accountability and effectiveness.

1.7 SCOPE AND LIMITATIONS OF THE STUDY

Based on recommendations and comments from earlier researchers for additional studies on the same subject. The study examined the nexus between extrinsic factors and IAE. The study uses agency theory as the theoretical framework in the chapter's theoretical review section. Additionally, the study reviews the empirical literature and provides definitions and explanations for several terms, including internal audit effectiveness and definitions of extrinsic factors. The

reviews also lead to the creation of a conceptual framework that explains the study's variables. Geographically, this study will only focus on IA in public organisations in the Upper West Region.

Nevertheless, this research has some limitations. First, the results, however, might not be generalized to all fifteen (15) of Ghana's regions because the study's focus is just on the Upper West Region. Additionally, there is a chance that answers to queries affected by personal issues will be biased on the part of the respondents. Also, the cost and time allocated for the study are limited to conducting an in-depth analysis. In addition, the sample size of the study may not necessarily reflect the entire population of the study. Nonetheless, these limitations may not in any way affect the validity of the results.

1.8 ORGANISATION OF THE STUDY

This study comprises five chapters. Chapter 1 presents the background of the study, problem statement, study objectives, research questions, study's significance, the study scope, brief methodology, and organisation of the study. Chapter 2 reviews relevant literature concerning IAE. Chapter 3 of the study presents the study's methods. Chapter 4 analyses data and discusses the results. Chapter 5 presents the study's summary of findings, conclusions, and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

This section discusses the studies relevant to this research. It covers among others conceptual review, theoretical framework, and empirical review. The conceptual framework underpinning the study is also captured in the section.

2.1 CONCEPTUAL LITERATURE REVIEW

A conceptual pertinent to the subject area is included in this part. The definition of internal audit, an overview of extrinsic factors, and a broad look at the meaning of are among the topics covered.

2.1.1 Meaning of Internal Audit

According to the Institute of Internal Auditors (2017), internal audit functions are impartial, independent assurance and consulting activities designed to provide value and improve an organization's operations. The institute further stress that IA aids organisation in achieving its goals. According to Islam and Bhuiyan (2021), a corporation forms an internal audit function as a service within its administrative boundaries. According to Islam and Bhuiyan (2021), the internal audit role primarily focuses on verifying the effectiveness and sufficiency of internal control and accounting systems.

The role of IA is to improve an organisation's operations through independent, assurance, and assessment procedures (Alqudah et al., 2019). The study went on to prove that the aids achievement organizational objectives by creating a systematic, controlled process for assessment, and direction procedures. The internal audit function is a methodical procedure for objectively

compiling and evaluating data regarding the current state of an organization, comparing it with a predetermined criterion, and then discussing the findings with the users (Almahuzi, 2020). The report also indicated that IA is a fundamental component of the organization's control system and offers numerous advantages, including executing detective and preventive control mechanisms and making recommendations for organizational improvement (Alqudah et al., 2019).

2.1.2 Definitions and General Overview of Extrinsic Factors

Extrinsic factors, as defined by Alqudah et al. (2019), are those that are not tied to IA control within the organization; instead, they are connected to external factors, such as top management's support. Like how Almahuzi (2020) described external factors, external factors are those that are outside of the internal audit department's external control or jurisdiction. The paper goes on to say that these external factors may affect an organization's internal audit effectiveness. Islam and Bhuiyan (2021) define extrinsic factors as factors that fall outside the purview of IA in a company. The study also confirmed that managerial independence and support fall under the category of external influences.

Extrinsic factors, such as top management support, independence, complexity, and the size of the internal audit department, are those that are unrelated to the internal auditors' control within the organization (Turetken et al., 2020). Extrinsic factors are those that an organization's internal audit has no control over, according to Pelser et al. (2020). The study also noted that IA independence is a variable that predicts IAE. However, the extrinsic factor in this study is defined as elements outside of an organization's internal audit department's control.

Numerous studies have shown that several characteristics, including management backing, expertise, independence, the size of the internal audit department, and the connection between

internal and external auditors, limit the work of internal auditors (Eulerich et al., 2021; Tahir et al., 2020; Nugroho, 2021; Salehi, 2016). Additionally, most studies highlight the existence of audit committees in organizations, stakeholder support, adequate staff, legal mandates, and professional audit standards (Bhuiyan, 2021). Internal auditing's lack of efficacy in the public sector may not be due to the skills or qualifications of internal auditors themselves, but it may be related to external variables that should be considered (Nedyalkova, 2019; Filfilan, 2022).

2.1.3 General Overview of Internal Audit Effectiveness

A reliable internal audit function assists firms in reducing operational risks and improving financial reporting, which raises the trust of shareholders (Asiedu & Deffor, 2017). Through the application of a disciplined methodology to assess and enhance the performance of risk management, control, and governance procedures, an effective IAE assists the organisation to ascertain its goals (Daniel et al., 2021). Effectiveness is a word that appears frequently in literature and the media (Abdullah & Mustafa, 2020). Few academics have attempted to categorize or define this phrase. Internal audit function effectiveness (IAE) was described by Ojra et al. (2020) as the ability to achieve results that are consistent with goals.

Additionally, the study found that because the internal audit function is one of the organization's activities, accomplishing internal audit goals is related to the efficacy of the internal audit function. Menzo et al. (2019) definition of internal audit function states that it is the degree to which an internal audit office achieves its purported goal or the anticipated result. Effective internal audit systems assist firms to reduce operational risk and improve financial reporting reliability, which helps to win over shareholders' trust, according to Ta & Doan (2022). The study also revealed that the internal audit function will be successful if it can meet its goals.

Mexmonov (2020) described an effective internal audit function as the ability of internal auditors to plan, implement, and objectively report the findings. The report went on to say that an increase in the effectiveness of the internal audit function had a beneficial impact on the standard and dependability of the company's information system. Additionally, according to Poltak et al. (2019), an effective internal audit role occurs when firms heed the independent auditors' recommendations for development. According to the study, internal audit effectiveness improves control and governance procedures by using a systematic and disciplined approach to risk and information evaluation, which helps firms meet their targets.

2.2 THEORETICAL LITERATURE REVIEW

The theoretical perspective of IAE is presented in this section. The agency theory, serve as the theoretical cornerstone of this work.

2.2.1 Agency Theory

A contract between the organization's top management and the organization's owner(s) is what is known as an agency relationship. According to the agency theory, a business is made up of agreements between owners (principals) and managers (agents) (Eisenhardt, 1989). This theory has been applied to auditing-related studies in the past (McColgan, 2001; Jensen & Smith, 2001), as it focuses on resolving disputes that may occur in agency relationships. The theory addresses two major problems: (i) the conflict of interest, particularly challenging principals' experience in confirming the acts of their agents, and (ii) the divergence in a principal's and its agent's attitudes about risk.

Therefore, the relevance of IA in an organisation is a result of the conflict of interest, information asymmetry among others (Jensen & Smith, 2001). Other researchers support this claim, by

stressing that because of the numerous corporate scandals such as financial frauds, ethical lapses, misappropriations, and mismanagement of funds require the presence of IA in the organisation (Scapens, 1985; Jensen & Meckling, 2019; Adams, 1994). As a result of this moral hazard, agents may be forced to choose between the interests of the principal and increasing their wealth (Eisenhardt, 1989). Adams has referred to this as "adverse selection," where owners may find it difficult to track the activities of management because they do not have access to all available information (1994).

Therefore, the providers of resources enter into a contractual agreement with the users of the resource to attain "Pareto-optimality," where both owners and management will pay expenses, to lessen the chance of issues like moral hazard and adverse selection (Scapens, 1985). For instance, principals may decide to spend money on monitoring to lower the danger of agents skipping out on their responsibilities (Morris, 1987). However, for management to demonstrate they are acting honourably and following the contractual agreements, agents will also have to pay bonding expenses. Managers can protect their careers and pay by doing this. It has been claimed that the principal's expenses for overseeing the operations of the agents are reflected in their remuneration (Wallace, 1980).

Therefore, to reduce the possibility of principals harming the agents' employment and compensation, management must be committed to IA (Adams, 1994). On the other hand, because management is prone to making seeking their interest, the principals must also ensure that the company is managed effectively by implementing effective corporate governance practices, such as internal controls (Adams, 1994). Principals can utilize IA as a governance-related control system method to keep an eye on the performance of the management (Eisenhardt, 1989).

Principals may, however, lack confidence in their agents due to conflicts of interest between them, and as a result, may need to put in place procedures like audits to bolster this confidence. Some researchers explained how to address the tension between university governance and government objectives using this idea (ICAG, 2005; Adams, 1994). It improves the government's ability to rule and aids departments and faculties in creating plans for achieving their objectives.

IA is an essential component of corporate governance (Adams, 1994). The agency theory will enable the boards of directors and management to comprehend their tasks, responsibilities, and obligations in this regard. A further benefit of the agency theory is that it would motivate boards to implement corporate governance and accountability standards to enhance organizational performance. This theory serves as the primary theoretical underpinning for this investigation. This is because it is obvious from the discussion above that the agency theory is a valuable theory that may explain the link between specific study variables and that it is pertinent to be incorporated in the creation of this research conceptual framework.

2.3 EMPIRICAL LITERATURE REVIEW

This section reviews empirical literature that has been written on the research issue. It covers a variety of themes, such as the level of internal audit effectiveness, factors that influence internal audit effectiveness, and the relationship between extrinsic and internal audit effectiveness.

2.3.1 Level of Internal Audit Effectiveness

The effectiveness of the internal audit function is crucial to an organization's success. The existing literature employed many methods to assess the efficiency of internal audits and the variables that affect them. Some of these studies used the IASPPA to assess the effectiveness of IAE (Nedyalkova, 2019; Filfilan, 2022).

Ta and Doan (2022) conducted an exploratory study to examine the empirical data from Vietnam that influences internal audit effectiveness. All independent and dependent variables in the study were given scales. Three interpretable factors were utilized to quantify the effectiveness of internal auditing using a total of 37 items that were subjected to exploratory factor analyses. Additionally, Abdullah and Mustafa (2020) investigated the factors that affect the efficiency of internal audits using the example of Duhok University in Kurdistan, Iraq. The study proposed internal auditor objectivity and proficiency as crucial dimensions of internal audit effectiveness and argued that compliance with the International Standards for the Professional Practice of Internal Auditing (ISPPIA) could serve as a guideline to measure internal audit effectiveness.

On the other hand, Menzo et al. (2019) examined the factors that determine internal audit effectiveness in the Southern region of the Ethiopian public enterprise. The study made the case that, to measure internal audit effectiveness appropriately, evaluations must also be made of the audit process itself (planning, execution, reporting, and follow-up), as well as the resources needed to conduct an efficient audit (which consist of internal auditors who are competent, independent, and objective). Poltak et al. (2019) investigated the factors influencing internal audit effectiveness and used management support as a moderating variable.

With the use of important stakeholders' expectations, including those of government regulators (coercive isomorphism) and investors or owners, the study evaluated the effectiveness of internal audits (principals). In the Central Region of Ghana, Kukuiah (2019) investigated the elements influencing the efficiency of internal auditing. The ISSPIA standards, which are arguably a credible method of measuring internal audit performance, were used in the study to measure internal audit effectiveness.

Similarly, to this, Daniel et al. (2021) investigated the elements influencing the efficacy of internal audits in Ghanaian local government entities. Utilizing questionnaires and interviews, the study evaluated the efficacy of internal auditing and the degree to which IA practice complied with ISPPIA requirements.

2.3.2 Determinants of Internal Audit Effectiveness

The factors that determine IAE are viewed as a contentious topic. Numerous studies looking into the efficacy of internal audit functions have explored a variety of elements in this regard. The following factors are reviewed as internal audit effectiveness factors:

2.3.2.1 Auditors Competence

For internal audit activities to be effective, staff competence is a crucial factor (Tahir et al., 2019; Menzo et al., 2019). The necessity of an internal audit team having the knowledge, abilities, and other competencies required to carry out their duties is emphasized by the International Standards for the Professional Practice of Internal Auditing (ISPPIA) (ISPPIA, Standard 2010). Internal auditors must be equipped with the required training, experience, education, and professional credentials to offer value and enhance an organization's operations (Tahir et al., 2019).

Also, to effectively carry out their duties, internal auditors need good interpersonal skills in communication, persuasion, collaboration, and critical thinking (Poltak et al., 2019). Additionally, to evaluate the performance of IAs, external auditors consider competencies as a significant factor (Turetken et al., 2020). Previous research indicates that an important factor influencing the efficacy of internal auditors is their competency (Kukuiah, 2019; Marfo-Yiadom et al., 2016; Pelser et al., 2020). Menza et al. (2019) observed that the internal audit function's success in the Ethiopian public enterprise depends on the internal audit staff's acceptable level of skills in terms of training,

experience, knowledge, and professional qualifications. IAE is influenced by the competency of IA, according to a study done in Vietnam by Ta and Doan in 2022. The efficiency of internal audit duties depends on how competent internal auditors are (Nedyalkova, 2019; Filfilan, 2022; Shamki & Alhajri, 2017). Internal Auditors who possess the necessary skill, expertise, and potency in auditing will successfully carry out internal audit functions (Inyang et al., 2021). If there is sufficient and qualified IA, IAF can be carried out efficiently (Salehi, 2016).

Additionally, a study by Asiedu and Deffour (2017) found that the ineffectiveness of the internal audit function in Ghana is hampered by the incompetence of internal auditors. In addition to producing high-quality audit reports, competent internal auditors also effectively convey the audit reports to ensure that their suggestions are understood (Ahmet, 2021; Alias et al., 2019). Internal audit reports must be distributed effectively, therefore competent internal auditors possess interpersonal, communication, writing, and listening abilities (Eulerich et al., 2021).

2.3.2.2 Independence of Internal Audit

IA independence is described by Abdelrahim and Al-Malkawi (2022) as the absence of situations that can impair internal auditors' ability to impartially carry out their duties or as a state in which dangers to auditors' objectivity are sufficiently averted. A further definition of independence is "the freedom from circumstances that jeopardize the ability of the internal audit activity to carry out internal audit tasks in an objective way" (Dejnaronk et al., 2016). Due to this aspect, the entity being audited cannot interfere with the audit activities. Organizational independence enables the audit activity to operate independently of the subject of the audit.

Supposing this assertion, Abdelrahim and Al-Malkawi (2022) opined that IA must be given the maximum freedom to discharge their duties. The importance of independence is essential for

auditors, but it is at the core of the accounting profession. Even though internal and external audits are synonymous with auditor independence, Turetken et al. (2020) claim that despite internal auditors working for the business, professional bodies and standard-setters have given internal audit independence more weight. One of the most crucial components of a successful internal audit function has been highlighted as the department's independence (Eulerich et al., 2021). Although internal auditor and internal audit effectiveness have only been the subject of a small number of studies, Tahir et al. (2020) assert that these studies have found a favorable correlation between the two. The efficacy of internal auditing and its independence have been linked to other research approvingly (Ojra et al., 2020; Menzo et al., 2019).

2.3.2.3 Top Management Support

For the internal audit department to operate effectively, top management support is essential (Eulerich et al., 2021). Internal audit definitions include excellent governance, which is mostly dependent on top management's professionalism to maintain an efficient internal audit function (Poltak et al., 2019). Internal auditors can receive the resources they need to carry out their obligations with the help of top management, and the internal audit function can hire qualified personnel and offer ongoing training and development (Salehi, 2016).

According to Onumah and Yao Krah (2012), a hindrance to efficient internal auditing in the Ghanaian public sector is a dearth of management assistance. According to earlier studies, management support is essential for the internal audit department's goal to be accomplished. For instance, Pelser et al. (2020) discovered that, after the appropriateness of the auditing team, managerial support was the second most significant factor of internal audit effectiveness within the Malaysian public sector. According to Ta and Doan (2022), management support is the primary

variable affecting the efficacy of internal audits. Similar results were also reported by Alzeban & Gwilliam (2014) in their investigation of the Saudi Arabian public sector.

2.3.2.4 Task Complexity

For internal auditors to efficiently carry out their audit activities, a company should assess their demands considering the variation of size, complexity, and organizational structure of those organizations (Alqudah et al., 2019). Regarding the expansion of public sector accounting, this sector now entails greater complexity, additional dangers related to allegations of corruption, and high-risk investments in various public institutions (Mpakaniye & Jean, 2022). IA is created to enhance the company's operations by offering a wide range of services (IIA, 2017). Audit tasks may be distributed to auditors to suit the varied requirements of audit activities, enhancing performance, once the work complexity level is identified (Chang et al., 2019).

Conversely, auditors perform poorly with complicated audit operations because they may entail information that may be challenging to assess (Turetken et al., 2020). Some researchers have supported this claim, showing that a complex task is associated with poor auditing performance (Mexmonov, 2020; Mpakaniye & Jean, 2022; Alqudah et al., 2019). The impact of task complexity on IAE has, however, not been the subject of much research. As a result, this study uses the agency theory to try to solve this problem.

2.3.3 Relationship between Extrinsic Factors and Internal Audit Effectiveness

Numerous research has been done on the factors that influence the effectiveness of internal audits in both the public and private sectors. For instance, Alqudah et al. (2019) study extrinsic factors on IAE in Jordanian public organisation. The study found that IA independence, IA size, and support from management have positive and significant impacts on IAE. However, task

complexity negatively predicted IAE. A study titled "effect of education, training, experience, independence and professional attitude on IAE" was also reviewed by Usmany (2021). The census sampling method was used in the investigation. The finding of this study shows that experience, independence, and a professional attitude all significantly and positively impact the IAE. However, IAE was not significantly predicted by education and training.

Also, Marfo-Yiadom et al. (2016) explored the determinants of IAE in local government. According to the results of the study, IA independence, competence, and career advancement positively and significantly predicted IAE. However, support from management showed a negative influence. In addition, Menzo et al. (2019) investigated the factors that affect IAE in an Ethiopian public enterprise in Southern Region. Out of a total population of 168, a sample size of 118 members of the internal audit staff and heads of organizations was chosen using the simple random sampling technique. The study's conclusions showed that the internal audit chart, appropriate resources, and competent staff all contributed to its success. IAE is positively and significantly impacted by the relationship between internal and external auditors and by gender.

Additionally, research on IAE in Tunisia was undertaken by Dellai and Omri (2016). The findings show that IA independence, objectivity, and support from management positively and significantly predicted IAE. Similarly, to this, Ta and Doan (2022) looked into four aspects of internal audit effectiveness in Vietnam, including its independence, the skill of its auditors, management support, and the calibre of its work. After the data was processed, the findings showed that two factors—the internal auditor's independence and management support positively impacted IAE, whereas IA competence and IA size negatively influenced IAE.

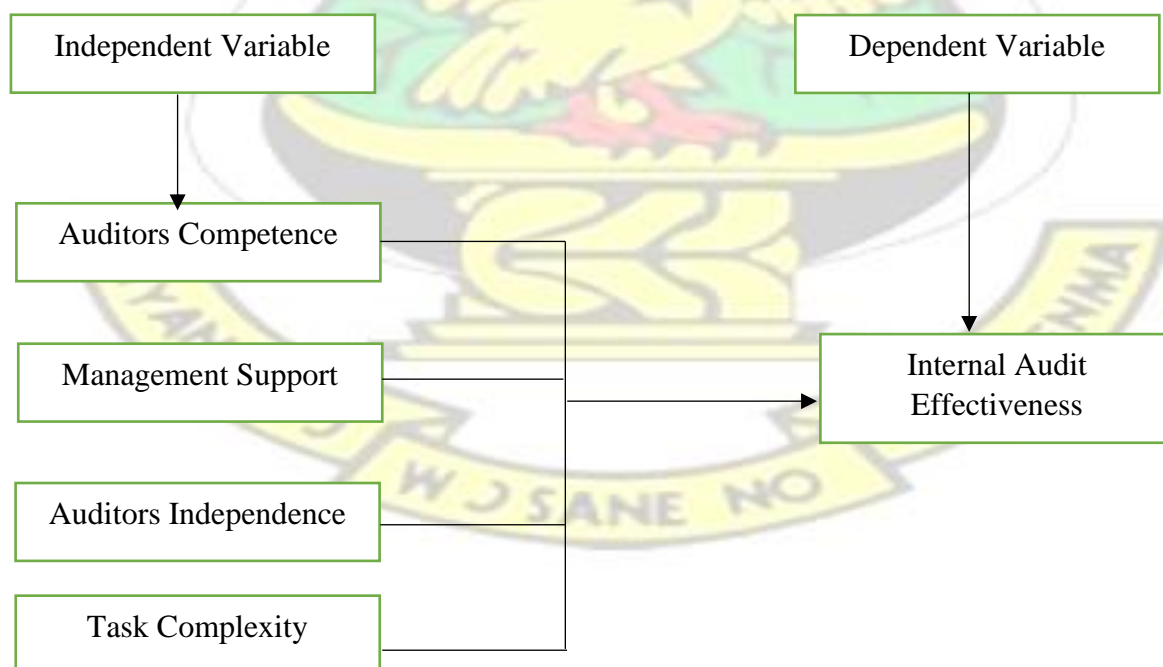
In contrast, Tahir et al. (2019) study tries to investigate the variables that affect how effective internal audits are in Pakistan's power industry. The study's findings were derived from

information gathered from management (103) and internal audit employees (103) of the four major power sector companies. IAE is investigated in connection to three factors: the auditor's competencies, support from senior management, and the interaction between IAC and IA. It has been discovered that improved management support and internal auditor competencies positively impact the efficacy of internal audits by increasing the adoption of recommendations made by internal audits. On the other side, Kukuiah (2019) investigated what influences IAE in state-owned enterprises. The result revealed that IAE is significantly and positively influenced by IA independence, competency, and control environment. However, IAE was not significantly enhanced managerial support.

2.4 CONCEPTUAL FRAMEWORK

The conceptual framework that underpins this investigation is covered in this section. Figure 2.1 below shows the conceptual framework, with a quick explanation following.

Figure 2.1 Conceptual Framework



Source: Author's Construct (2022)

The framework illustrates the nexus the dependent variable (internal audit effectiveness) has with the independent factors (auditors' independence, management support, and task complexity). The audit competence, management support, the auditor's independence, and task complexity are expected to positively influence the IAE, according to the literature evaluations that have been conducted.



CHAPTER THREE

RESEARCH METHODOLOGY

3.0 INTRODUCTION

The research methods used for the study are presented in this chapter. This covers the study's design, approach, sample size and techniques, population, data collection, and analysis, reliability, and validity, ethical considerations, study area's profile, and chapter summary.

3.1 RESEARCH DESIGN

According to Saunders et al. (2016), a research design is an overarching strategy that guides a researcher in responding to research questions. In this study, an explanatory research design is employed. This research design is used because it reveals and evaluates causal linkages to explain phenomena (Creswell & Sinley, 2017). Additionally, an explanatory study design tries to link numerous issues that are generally covered by general claims, evaluate the veracity of a theory, compete for the best explanations, and learn more about an underlying process (Creswell & Sinley, 2017). Explanatory research designs also work to develop and elaborate a concept to complete it and apply the principle to new fields by bolstering the evidence that either refutes or supports the explanation (Saunders et al., 2016).

Further to this, explanatory research designs also have descriptive features, but they go beyond that to describe and analyse the causes of the influences and the kind of relationship that exists between the independent variable extrinsic factors (such as auditors' competence, management support, auditors' independence, and task complexity) and the dependent variable (internal audit effectiveness). In addition, Explanatory research studies also aim to test hypotheses that seek to clarify the nature of interactions, establish the distinction between groups, or demonstrate the

independence of two or more components in the circumstance (Poltak et al., 2019). This study is assumed to be explanatory because it aims to ascertain and explain the causal relationship between extrinsic factors and IAE in public sector organisations in Upper West.

3.2 RESEARCH APPROACH

The quantitative method is used in this research. This approach is employed in this study because the quantitative research approach seeks to determine the main effect between/among variables. The emphasis of the quantitative approach is on measurements and giving justifications for arbitrary relationships. The data is examined in numerical form. The data collected from respondents through questionnaires can be simply analysed using the quantitative method and standard statistical techniques. Also, the quantitative approach uses methods, measurements, and designs that produce numerical and quantifiable data (Saunders et al., 2016). To explain the causal relationship between extrinsic factors (i.e., auditors' competence, management support, auditor's independence, and task complexity) and internal audit effectiveness in the public sector organization in the Upper West Region, this study primarily uses a quantitative approach.

3.3 POPULATION OF THE STUDY

According to Saunders et al. (2016), the population of a study is the whole set of cases from which a sample is drawn. The target population is IA in Upper West.

3.4 SAMPLE SIZE AND SAMPLING TECHNIQUE

accordance with the probability sampling method, a stratified sampling technique was used for this study. Probability sampling, according to Creswell and Creswell (2017), is best used when a research study seeks to establish a causal relationship between variables. A hundred fifty-five (155) sample sizes were used in this investigation. Using a 95% confidence level and a 5% error,

the total sample size from the 253 total population was calculated using Taro Yamane's (1967:886) statistical procedure. Hence, 155 people made up the entire sample size (n), which was calculated using the equation below.

$$n = \frac{N}{1+N(e)^2}$$

If e is the level of confidence, which we have set at 95%, and n is the sample size, N is the population size. The following sample sizes were utilized when the researcher applied the calculation above to the population:

$$n = \frac{253}{1+253(0.05)^2}$$

Therefore, $n = 154.9 / 155$

3.5 DATA AND INSTRUMENT FOR DATA COLLECTION

A primary data source is employed. Self-administered questionnaire as the primary source of data collection tool in this investigation. The researcher will be able to get reliable data to help in reaching the research objectives owing to the study's utilization of a primary source of data collecting. The questionnaire, which was divided into three portions, contained a total of thirty-three (33) questions. The respondents' demographic information is shown in Section A. Questions on the level of IAE are found in part B, and inquiries about the factors that influence IAE are found in section C. However, there are four (4) separate questions in section C. Questions about the independence of internal auditors are found in Section I. The questions in Section II pertain to managerial support. Task complexity questions are presented in Section III, while competency

questions are presented in Section IV. This study similarly uses the Likert scale format. The study was carried out in the Upper West Region's public sector. The researcher collected the data over no more than three (3) weeks.

3.5.1 Variables Description and Measurement

IAE served as the dependent variable. Since researchers cannot access internal audit reports, it is difficult to evaluate the effectiveness of the internal audit function within a firm. Despite this, earlier research used various methods to assess the effectiveness of internal audits. Several studies emphasized proxy measurements (Arena & Azzone 2009; Burton et al. 2012). However, the measurement standards for this work were taken from those of Alzeban and Gwilliam (2014), Salehi (2016), and Kukuiah (2019).

3.6 DATA ANALYSIS

The descriptive statistics analysis tool such as frequency tables, mean and standard deviations were used to address respondents' demographical characteristics and the research questions which sought to determine the level of internal audit effectiveness and its determinants. The frequency table is used as the mode of presentation because it makes comparison and analysis simple. Additionally, this study seeks to examine the relationship between extrinsic factors (i.e., auditors' competence, management support, auditors' independence, and task complexity) and internal audit effectiveness.

The use of inferential statistics, such as the multiple linear regression tool, to predict the relationship among the variables was employed to investigate the link among the variables. The Statistical Package for Social Science (SPSS) version 24 and Microsoft Excel is used to conduct

the data analysis. While SPSS was used to conduct the regression analysis, Excel was used to code the variables and imported them into SPSS for the regression analysis.

3.6.1 Research Model Specification

The relationship between extrinsic factors and internal audit effectiveness is determined using the multiple linear regression analysis. The multiple linear regression model is the equation the study adopted to establish the relationship.

$$IAE = \alpha + \beta TMS + \beta TC + \beta AC + \beta AI + e$$

Where, IAE = Internal audit effectiveness, TMS = Top management support, TC = Task complexity, AC= Auditors competence, AI = Auditors' independence, β = Coefficients to be determined, and e = Error term

3.7 RELIABILITY AND VALIDITY OF DATA

The degree of accuracy or consistency with which an instrument assesses the characteristic it is intended to measure is improved by reliability. Using Cronbach's Alpha, the internal consistency technique is used to evaluate the reliability. When a threshold of a reliability test is at least .70 and ideally higher, a scale is regarded as reliable (Creswell & Creswell, 2017). On the other hand, the degree to which an instrument measures what it is intended to measure is indicated by its validity. The questionnaires are designed to keep the study's emphasis, accuracy, and consistency throughout. The validity of the data was determined by seeking the opinions of experts, particularly the supervisor.

3.8 ETHICAL CONSIDERATION

The researcher requested permission from the management of the various public sector in the Upper West Region before distributing the questionnaire. The researcher first presents himself to the respondents and provides them with a student ID card as proof. The researcher also provided information to assist the respondents to decide whether to participate in the study. This implies that the respondents were not under any obligation to participate in the research. To prevent deceit and coercion, this is done. The assurance of confidentiality is given to the respondents with the justification that the research is solely academic.

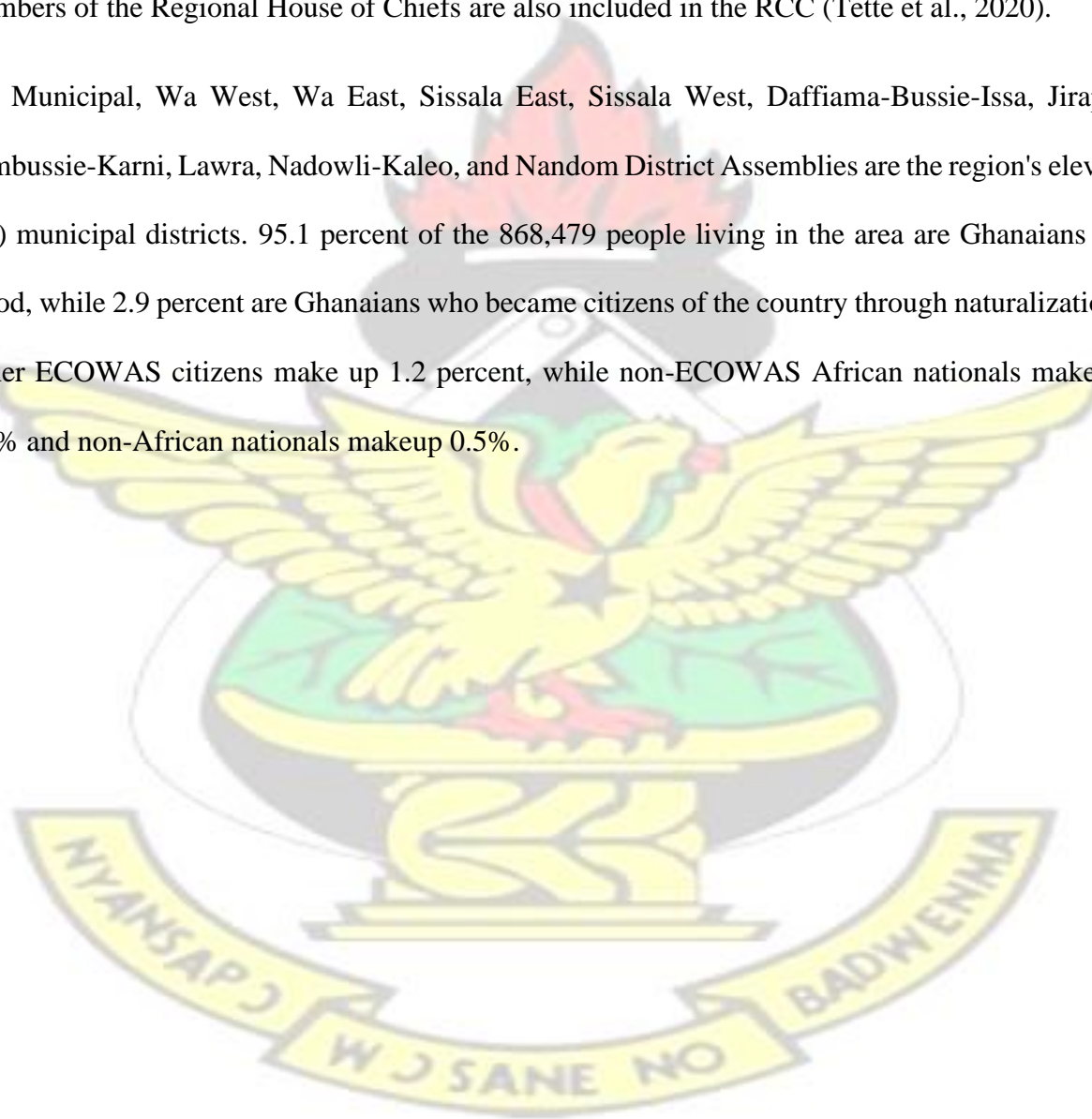
3.9 PROFILE OF THE STUDY AREA

The Upper West District of Ghana spans a region that is roughly 18,476 square kilometers in size. About 12.7% of Ghana's overall land area is made up of this. The Republic of Burkina Faso, Upper East Region, Savannah Region, and Cote d'Ivoire form the region's northern, eastern, southern, and western borders, respectively. Wa is the nation's capital and biggest city. Nandom, Daffiema, Issa, Jirapa, Kaleo, Nadowli, Lawra, Lambussie, Funsu, Wechiau, Gwollu, and Tumu are some additional villages (Totin et al., 2018). The Sisaala, Wala, Lobi, and Dagaba are the principal ethnic communities.

The Sisaala inhabit the eastern regions, the Dagaba the western, the Wala Wa, and a few of the neighbouring towns. The majority of the Sisaala and Dagaba are Christian and Animist, whereas most of the Wala are Muslims; Wa is Ghana's biggest city with an Islamic majority. Dagaare and Waali, the tongue of the Wala, are mutually comprehensible (Ampofo, 2020). Agriculture is the region's main business sector. Corn, millet, groundnuts, okro, shea butter, and rice are among the crops produced. For meat and eggs, sheep, goats, chickens, pigs, and guinea fowl are kept. The

brewing of pito, a sweet, mildly alcoholic beverage made from millet, is a unique aspect of the culture of the area. Pito is served from calabashes and distributed by the brewers in outdoor bars. Political control over the area is exercised by Wa. The Regional Coordination Council (RCC), which is led by the Regional Minister, is the primary executive body at the regional level. Representatives from each District Assembly, regional leaders of decentralized ministries, and members of the Regional House of Chiefs are also included in the RCC (Tette et al., 2020).

Wa Municipal, Wa West, Wa East, Sissala East, Sissala West, Daffiama-Bussie-Issa, Jirapa, Lambussie-Karni, Lawra, Nadowli-Kaleo, and Nandom District Assemblies are the region's eleven (11) municipal districts. 95.1 percent of the 868,479 people living in the area are Ghanaians by blood, while 2.9 percent are Ghanaians who became citizens of the country through naturalization. Other ECOWAS citizens make up 1.2 percent, while non-ECOWAS African nationals makeup 0.3% and non-African nationals makeup 0.5%.



CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, AND DISCUSSION

4.0 INTRODUCTION

The analysis of field data is shown in this part. Thus, the chapter is split into four parts. The respondents' demographical information is shown in Section 1. The study's objectives are laid out in Parts 2, 3, and 4.

4.1 RESPONSE RATE

Out of the targeted one hundred sixty-five (165) staff members working in the internal audit section of public sector in Upper West, one hundred and fifty-five (155) respondents provided the data that was analysed. Thus, 94.0% of respondents responded. This is considered a very good response rate because it is higher than 60% (Mugenda & Mugenda).

4.2 DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

The respondents' demographic features are covered in this part. These include factors like gender, age, education, marital status, professional qualification, and level of experience. The demographic details of the respondents are shown in Table 4.1 below.

Table 4.1 Demographic characteristics of the respondents

Variable	Frequency	Percentage
Gender		
Male	104	67.1
Female	51	32.9
Total	155	100
Age (Years)		
20-29	27	17.4
30-39	59	38.1
40-49	41	26.5
50-59	28	18.1
Total	155	100
Level of Education		
Tertiary	155	100
Total	155	100
Professional qualification		
ACCA	24	15.5
ICA	88	56.8
Non	43	27.7
Total	155	100
Marital Status		
Married	53	34.2
Divorced	22	14.2
Widow	17	11
Co-habiting	12	7.7
Single	45	29
Separated	6	3.9
Total	155	100
Level of Experience		
1-3 years	23	14.8

4-6 years	65	41.9
7-10 years	50	32.3
10 years above	17	11
Total	155	100

Source: Field survey, (2022)

4.2.1 Gender

From Table 4.1 above, of the 155 respondents, the results reveal that 104 (67.1%) are males and 51 (32.9%) are females. This suggests that most respondents are males relative to their female counterparts. The reason for the male dominance in the study area may be because of the nature of the auditing work

4.2.2 Age

From table 4.1 above the results reveal that 27 (17.4%) are between the ages of 20 and 29 years while 59 (38.1%) are between the ages of 30 and 39 years. In addition, 41 (26.5%) are between the ages of 40 and 49 with 28 (18.1%) falling between the ages of 50 and 59 years. This suggests that most of the respondents fall between the ages of 30 – 39. This means most of the employees are in their adulthood.

4.2.3 Level of Education

Out of the 155 respondents, 155 (100.0%) have completed tertiary education as shown in Table 4.1 above. The educational level of the respondents can be said to be in good standing, which will be of immense benefit to the organisation in terms of productivity. The reason for the good educational background of the respondents may be because of the research setting.

4.2.4 Professional Qualification

From Table 4.1 above, out of the 155 respondents, 24 (15.5%) have attained a professional qualification in the Association of Certified Chartered Accountants, United Kingdom (ACCA), 88 (56.8) have attained their professional qualification in the Institute of Chartered Accountants Ghana whereas 43 (27.7) has no professional qualification. This result suggests that most of the respondents in the study area have professional qualifications in ICAG.

4.2.5 Marital Status

Of the 155, 53 (34.2%) are married; 22 (14.2%) are officially divorced; 17 (11.0%) are widows; 12 (7.7%) are co-habiting; 45 (29.0%) are single and 6 (3.9%) indicates separation. This result indicates that most of the participants within the study region are married.

4.2.6 Level of Experience

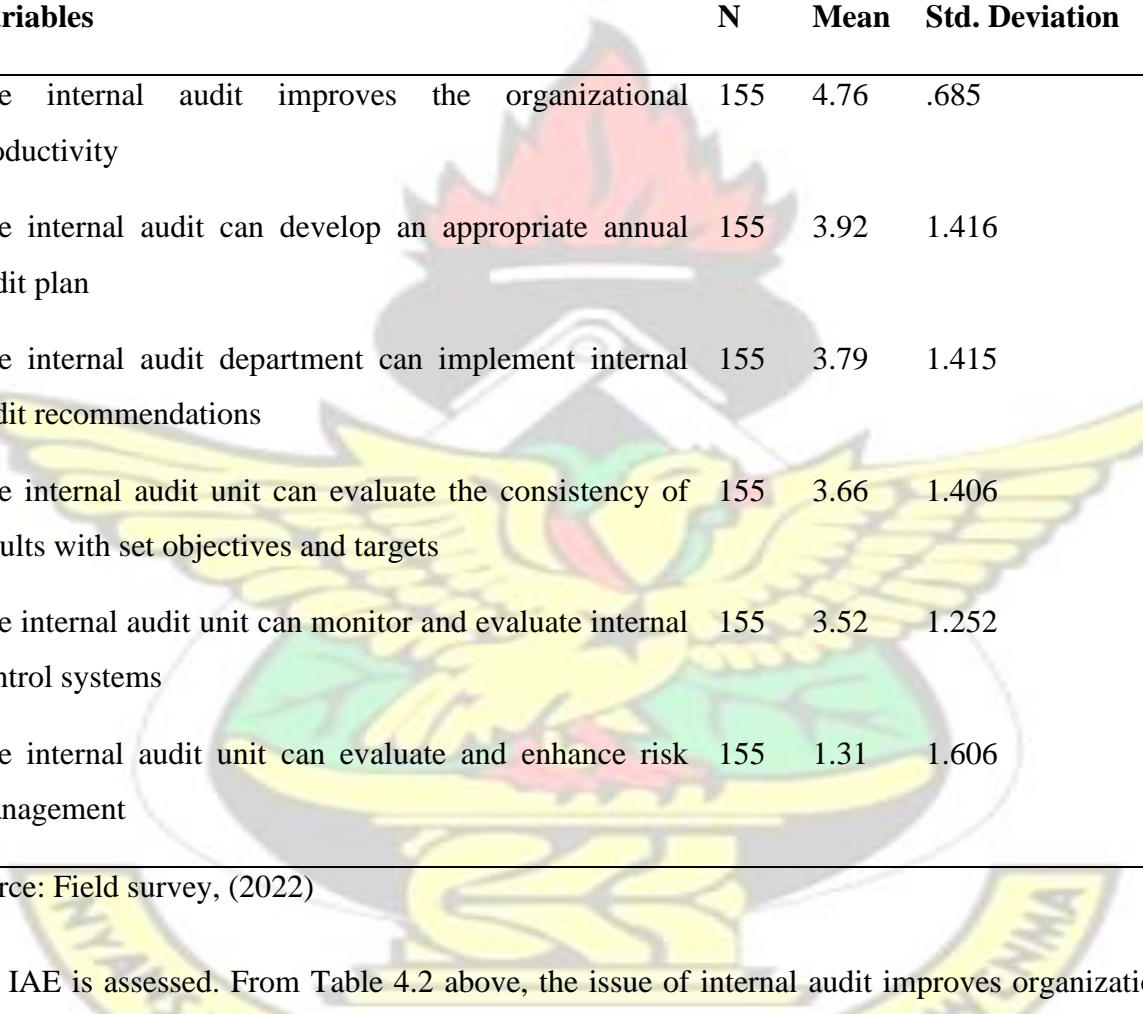

Table 4.1 depicts the level of experience of the respondents. The results reveal that 23 (14.8%) are between 1 to 3 years; 65 (41.9%) are between 4 to 6 years; 50 (32.3%) indicate 7 to 10 years while 17 (11.0%) are more than 10 years. In terms of respondents' level of experience, most of them have working experience between 4 to 6 years.

4.3 LEVEL OF INTERNAL AUDIT EFFECTIVENESS IN THE PUBLIC SECTOR IN UPPER WEST REGION

This section examines the Upper West Region's public sector's level of internal audit effectiveness. Following that, respondents were tasked with assessing how much they agreed or disagreed with each assertion on a five-point Likert scale, which ranged from strongly disagree (1) to strongly agree (5). Mean ratings and standard deviations are used to analyse the data collected using descriptive tools.

4.3.1 Level of Internal Audit Effectiveness

Table 4.2 Displays the level of internal audit effectiveness.



Variables	N	Mean	Std. Deviation
The internal audit improves the organizational productivity	155	4.76	.685
The internal audit can develop an appropriate annual audit plan	155	3.92	1.416
The internal audit department can implement internal audit recommendations	155	3.79	1.415
The internal audit unit can evaluate the consistency of results with set objectives and targets	155	3.66	1.406
The internal audit unit can monitor and evaluate internal control systems	155	3.52	1.252
The internal audit unit can evaluate and enhance risk management	155	1.31	1.606

Source: Field survey, (2022)

The IAE is assessed. From Table 4.2 above, the issue of internal audit improves organizational productivity has the highest score. The scores are (M=4.76; SD=.685) for the mean and standard deviation. The result, thus, implies that most of the respondents within the study area suggest that internal audit improves organisational performance. Also, from table 4.2 above on the issue of internal audit developing appropriate annual audit plans has a higher score. The scores are

($M=3.92$; $SD=1.416$) for the mean and standard deviation. This finding asserts that most of the respondents within the study area believe that internal audit is capable of planning.

Table 4.2 further reveal that the issue of the internal audit department can implement internal audit recommendations also scored high. The mean and standard deviation scores show ($M=3.79$; $SD=1.415$). This result, thus, suggests that most of the respondents within the study area consider that the internal audit department can implement internal audit recommendations. Moreover, according to table 4.2 above, the issue regarding the internal audit unit can evaluate the consistency of results with set objectives and targets has a high score. The scores are ($M=3.66$; $SD=1.406$) for the mean and standard deviation. This finding, therefore, indicates that most of the participants within the study area suggest that the internal audit unit can evaluate the consistency of results with set objectives and targets. Further to this, Table 4.2 above reveal that the internal audit unit can monitor and evaluate internal control systems and has a moderate score. The scores are ($M=3.52$; $SD=1.252$) for the mean and standard deviations. This finding, therefore, indicates that most of the participants within the study area suggest that the internal audit unit can monitor and evaluate internal control systems.

Lastly, Table 4.2 mentioned above reports that the internal audit unit can evaluate and enhance risk management and has the lowest score. The scores are ($M=1.31$; $SD=1.606$) for the mean and standard deviation. This result suggests that most of the respondents within the study area indicate that the internal audit unit cannot evaluate and enhance risk management. From the results above, it is obvious that the level of internal audit effectiveness among the public sector organisations in the Upper West Region is high. This is because according to the result, internal audit improves organisational productivity and can develop an appropriate annual audit plan.

This finding agrees with the study by Ta and Doan (2022) and Menzo et al. (2019). For instance, Ta and Doan (2022) findings established that the ability of an internal audit unit to add value to an organisation by improving the productivity of the entity indicates the effectiveness of the internal audit unit. Also, the result of this study aligns with a study by Azzali and Mazza (2018) who examine internal audit effectiveness from an agency theory lens and reported that internal audit is an agent to the board of directors and the management, and it will be effective when performing its role for their benefit by helping the organization to achieve its objectives and increasing of productivity. The similarities among these studies may be because of the similar research approach adopted in these studies.

4.4 DETERMINANT OF INTERNAL AUDIT EFFECTIVENESS

This section presents the determinants of IAE. It seeks to address the second objective of the study. It covers among others IA independence, competence, management support, and task complexity.

4.4.1 Independence of IA

The respondents rated the various statements using a five-point likert scale which is provided as; 1= strongly disagree, 2= disagree, 3= Neutral, 4= agree, 5= strongly agree. The responses to independence of internal auditors in the region are summarized in Table 4.3 below.

Variables	1	2	3	4	5	Mean
IA has the freedom to perform their work	20%	13.50%	19.50%	20%	27%	4.55
IA has access to other departments	16.80%	15.50%	1.90%	11%	54.80%	4.83
IA has access to top management	10.30%	13.50%	14.80%	34.20%	27.2%	3.55
IA does not perform non-audit functions	12.30%	20%	18.70%	25.80%	23.20%	3.74
The irreconcilable circumstance is occasional	2.60%	5.80%	38.70%	32.90%	20%	3.12

Source: Field survey, (2022)

As represented in Table 4.3, 20% of respondents strongly disagreed that IA has the freedom to work. Also, 13.5% of the respondents disagreed that IA performs their duties freely. 19.5% of respondents were neutral. On the other hand, 20% of the respondents agreed. Furthermore, 27% of respondents Strongly agreed that internal auditors are adequately free to perform their expert commitments and obligations. With a mean score of 4.55, this suggests respondents strongly agree that IA performs their duties freely.

As represented in Table 4.3, 16.8% of the respondents strongly disagreed that IA has access to other departments. Also, 15.5% of the respondents disagreed. 1.9% of the respondents were neutral. On the other hand, 11.0% of the respondents agreed. Furthermore, 54.8% of the respondents strongly agreed. With a mean score of 4.83, it can be deduced that the respondents are in strong agreement that IA has access to other departments.

Further to this, on the issue of whether IA has access to senior management in the organisation.

Table 4.3 above reveal that respondents agreed with the statement IA have access to senior

management, such that 16 (10.3%) strongly disagree; 21 (13.5%) disagree; 23 (14.8%) were neutral; 53 (34.2%) agree whereas 42 (27.1%) strongly agreed. With a mean score of 3.55, it can be deduced that the respondents agree that IA has access to senior management.

In addition, from Table 4.3 above, 19 (12.3%) strongly disagree; 31 (20.0%) disagree; 29 (18.7%) were neutral; 40 (25.8%) agree whereas 36 (23.2%) strongly agreed that IA does not perform non-audit functions. This finding suggests that most respondents support the claim that the internal audit unit does not perform any other duty other than auditing functions. With a mean score of 3.74, it can be deduced the respondents agree that IA performs audit functions other than other functions.

However, the issue of irreconcilable circumstances is occasional. 4 (2.6%) strongly disagree; 9 (5.8%) disagree; 60 (38.7%) were neutral; 51 (32.9%) agree whereas 6 (3.9%) strongly agreed. This result indicates most respondents were neutral. With a mean score of 3.12, it can be deduced that the respondents were neutral concerning the issue of whether irreconcilable circumstances were occasional.

The results above suggest that to a large extent, the IA were free to perform their work, have access to both departments and senior management, and IA does not perform any other duty other than auditing functions which is an indication of the independence of IA. This result further suggests that IA will be objective in discharging their duties. This result agrees with the findings by Ojra et al. (2020) whose study established that independence allows the IA to perform their duties without interference.

4.4.2 Management Support for Internal Audit

The respondents rated the various statements using a five-point likert scale which is provided as; 1= strongly disagree, 2= disagree, 3= Neutral, 4= agree, 5= strongly agree. Table 4.4 displays the management support for the internal auditors.

Variables	1	2	3	4	5	Mean
Management assists IA in discharging their duties effectively	7.7	11.6	10.2	14.2	56.1	4.90
Management decisions are based on IA reports	0.0	11.6	20.6	35.5	32.3	3.61
Management response to IA reports	11.0	8.4	5.2	32.3	43.2	4.62
Involvement in planning internal audit	0.0	9.7	18.1	25.8	46.5	4.74
Management provides internal auditors with sufficient resources	7.1	9.0	12.3	23.2	48.4	4.82

Source: Field survey, (2022).

Results in Table 4.4 showed that 12 (7.7%) strongly disagree; 18 (11.6%) disagree; 16 (10.2%) are not sure about that; 22 (14.2%) agree whereas 87 (56.1%) strongly agree that IA the needed attention and support from senior management. This result indicates that most respondents support the claim that IA gets the needed support from senior management. With a mean value of 4.90, it can be deduced that the respondents strongly agree that IA gets the needed attention and support from senior management.

The results further reveal that 18 (11.6%) disagree; 32 (20.6%) were neutral; 55 (35.5%) agree whereas 50 (32.3%) strongly agreed that Management decisions are based on IA reports. This finding also suggests most respondents believe that the internal audit unit provides reports that are

given to the management for decision-making. A mean score of 3.61 suggests agreement from the respondents concerning the issue of whether during management decisions IA reports are considered.

Also, with regards to the statement on management response to reports produced by internal auditors, 17 (11.0%) disagree strongly; respondents in disagreement were 13 (8.4%); 8 (5.2%) were neutral; 50 (32.3%) agreed whereas 67 (43.2%) strongly agreed that Management response to reports produced by internal auditors. This result, thus, implies most respondents agreed that IA reports are responded to by management. Scoring a value of 4.62 for the mean, this suggests most respondents agree strongly that management responds to IA reports.

In addition, table 4.4 above revealed that 15 (9.7%) disagree; 28 (18.1%) were neutral; 40 (25.8%) agreed whereas 72 (46.5%) strongly agreed that Management are usually involved in planning IA. This finding suggests that most of the respondents believed that management is involved in planning an internal audit. Scoring a mean value of 4.74, this suggests that most respondents strongly agree that Management gets involved in planning IA.

Further to this, table 4.4 above also reports that 11 (7.1%) strongly disagree; 14 (9.0%) disagree; 19 (12.3%) were neutral; 36 (32.3%) agreed whereas 75 (48.4%) strongly agreed with the statement that management provides internal auditors with sufficient resources. This result suggests that most respondents assert that the resources needed by IA are sufficiently provided by management. Scoring a value of 4.82 for the mean suggests that respondents agree strongly that management provides adequate resources for IA.

The results above indicate a high level of support from management to IA. For instance, from the findings, it can be deduced that management assists IA to discharge their duties effectively. Also,

management decisions are solely based on IA reports. In addition, management gets involved in the planning of IA and also provides resources that are sufficient to assist IA in discharging their duties. This is an indication that management is committed to the course of IAE. These results support the claim by Eulerich et al. (2021) and Pelser et al. (2020) whose report established that when the management of an organisation makes decisions and implements policies based on an IA report indicates their commitment to the course of the IA in the organisation.

4.4.3 Task Complexity of the Internal Audit

The respondents rated the various statements using a five-point likert scale which is provided as; 1= strongly disagree, 2= disagree, 3= Neutral, 4= agree, 5= strongly agree. Table 4.5 shows the task complexity of the internal auditors.

Variables	1	2	3	4	5	Mean
Unstructured audit operations	9.0	40.0	10.3	19.4	21.3	2.21
Non-routine IA works exist	16.8	15.5	16.1	26.5	25.2	3.51
Spending time to understand IA works	9.7	5.8	15.5	29.0	40.0	4.53
Performing unrealistic task	12.3	20.6	12.9	32.9	21.3	3.63
Dealing with ad-hoc	9.7	5.8	15.5	38.7	30.3	4.01

Source: Field survey, (2022).

On the issue of unstructured audit operations, table 4.5 above reveal that 14 (9.0%) strongly disagree; 62 (40.0%) disagree; 16 (10.3%) were neutral; 30 (19.4%) agreed whereas 33 (21.3%) strongly agreed that IA usually carry out unstructured audit operations. This result indicates that

most of the respondents are of the opinion that audit operations are not unstructured. Scoring a value of 2.21 for the mean suggests respondents disagreed that IA operations are unstructured.

However, on the issue of whether there exist non-routine IA works, 26 (16.8%) strongly disagree; 24 (15.5%) disagree; 25 (16.1%) were neutral; 41 (26.5%) agree whereas 39 (25.2%) strongly agreed that there exist non-routine IA works. This result indicates that most respondents agree with the assertion that non-routine IA works exist in the organisation. With a mean score of 3.51 suggest respondents' agreement with the assertion that non-routine IA works exist in the organisation.

Also, concerning the issue of whether IA spends more time understanding IA works, 15 (9.7%) strongly disagree; 9 (5.8%) disagree; 24 (15.5%) were neutral; with 45 respondents who agreed (29.0%); 62 (40.0%) strongly agreed that IA spends more time understanding IA works. These findings imply most respondents agreed strongly that IA spends more time before IA works. With a mean score of 4.53, it can be deduced that most respondents strongly agree that IA spends more time before any IA works in the organisation.

Regarding the statement on performing unrealistic tasks, 19 (12.3%) strongly disagree; 32 (20.6%) disagree; 20 (12.9%) were neutral; 51 (32.9%) agree whereas 33 (21.3%) strongly agreed that internal audit usually perform unrealistic tasks. This result is with the notion that most respondents agreed that internal auditors perform a task that may have never existed before. Scoring a value of 3.63 for the mean suggests that most respondents agree that they usually perform unrealistic IA works.

On the issue of dealing with ad-hoc, Table 4.5 above revealed that 15 (9.7%) strongly disagree; 9 (5.8%) disagree; 24 (15.5%) were neutral; 60 (38.7%) agree whereas 47 (30.3%) strongly agreed that they usually deal with ad-hoc tasks sometimes. This finding suggests that most of the

participants within the study are of the notion that internal auditors sometimes deal with ad-hoc. A mean score of 4.01 indicates agreement from the respondents regarding the issue of IA dealing with ad-hoc.

According to the above results, the issue of task complexity among IA works is at a high level. For instance, from the results, it can be deduced that IA performing non-existing tasks, performing non-routine works, and the IA dealing with ad-hoc signals a high level of task complexity.

4.4.4 Competence of Internal Auditors

The respondents rated the various statements using a five-point likert scale which is provided as; 1= strongly disagree, 2= disagree, 3= Neutral, 4= agree, 5= strongly agree. Table 4.6 shows the competence of the internal auditors.

Variables	1	2	3	4	5	Mean
IA possesses a high level of professional knowledge	5.2	7.1	9.3	29.0	49.7	4.76
Internal auditors are considered professional	21.3	11.6	20.6	35.5	11.0	4.05
Internal auditors are proactive	9.7	18.1	7.7	46.5	18.1	4.12
Communication exists between IA and auditees	0.0	6.5	9.7	68.4	15.5	4.32
IA attends educational workshops	2.6	5.8	12.3	56.1	23.2	4.42

Source: Field survey, (2022).

The result in Table 4.6 captures the issue of whether IA possesses a high level of professional knowledge. According to the report, 8 (5.2%) strongly disagree; 11 (7.1%) disagree; 14 (9.3%) are not sure about that; 45 (29.0%) agree whereas 77 (49.7%) strongly agree that IA possesses a high level of professional knowledge. This research shows that most respondents indicate that professional knowledge of IA is high as far as internal auditing is concerned. Scoring a value of

4.76 for the mean suggests that most respondents agree strongly that IA possesses professional knowledge.

The results further reveal that 33 (21.3%) strongly disagree; 18 (11.6%) disagree; 32 (20.6%) were neutral; 55 (35.5%) agree whereas 17 (11.0%) strongly agreed that Internal auditors are considered professional. This finding suggests most respondents agree that IA is considered professional. A mean value of 4.05 indicates that most respondents agree with the assertion that IA is regarded as professionals.

Also, with regards to the statement on Internal auditors are proactive, 15 (9.7%) strongly disagree; 28 (18.1%) disagree; 12 (7.7%) were neutral; 72 (46.5%) agreed whereas 28 (18.1%) strongly agreed that Internal auditors are proactive. This result, thus, implies that most respondents agreed that the internal auditors were proactive in terms of their auditing works and engagements. Also, scoring a value of 4.12 signifies that most respondents agreed with the assertion that Internal auditors are proactive.

In addition, table 4.6 above revealed that on the issue of whether communication exists between IA and auditees. 10 (6.5%) disagree; 15 (9.7%) were neutral; 106 (68.4%) agreed whereas 24 (15.5%) strongly agreed that Communication exists between IA and auditees. This finding suggests that most of the respondents believed that IA communicates with auditees. A mean value of 4.32 implies the respondent's agreement that Communication exists between IA and auditees.

Lastly, Table 4.6 above also reports that 4 (2.6%) strongly disagree; 9 (5.8%) disagree; 19 (12.3%) were neutral; 87 (56.1%) agreed whereas 36 (23.2%) strongly agreed with the statement that IA attends educational seminars. This result indicates most respondents were of the view that internal

auditors mostly attend training and development programs that can enrich their knowledge. A mean value of 4.42 implies the respondents' agreed that IA usually attends educational seminars.

4.5 RELATIONSHIP BETWEEN EXTRINSIC FACTORS AND EFFECTIVENESS OF INTERNAL AUDIT

This section analyses the nexus between extrinsic factors and internal audit effectiveness. It addresses the final objective of the study. Using a multiple linear regression model, the nexus between extrinsic factors and IAE are established.

4.5.1 Model Summary

Table 4.7 shows the model summary.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.392 ^a	.154	.131	.638

Source: Field survey, (2022)

Predictors: (Constant) Competence, Management support, Task complexity, and Independence.

Table 4.7 displays the model summary of the study which displays the strength of the association that exists between the model and the dependent variable. 'R' shows the linear correlation between the independent variable and the dependent variable. From table 4.7 the value of 'R' which represents the coefficient value of .392 suggests a positive relationship between the variables. Also, from the model summary table above 'R' square shows a coefficient value of 0.154 indicating IAE is explained by the independent variables.

4.5.2 ANOVA (Analysis of Variance)

Table 4.8 presents the ANOVA.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.080	4	2.770	6.801	.000 ^b
	Residual	61.088	150	.407		
	Total	72.168	154			

Source: Field survey, (2022)

a. Dependent variable: Internal audit effectiveness

b. Predictors: (Constant), competence, management support, task complexity, and independence

Table 4.8 above displays the ANOVA test result. This table presents the statistically significant coefficient values of the model. The ANOVA model explains that a p-value less than (0.05) indicates significance whereas a p-value more than (0.05) suggests no significance. The result shows a significant value of .000^b which suggests that the whole model is statistically significant.

4.5.3 Regression Coefficients

Table 4.9 shows the Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	T	
1 (Constant)	4.824	.176		27.446	.000
Independence	.185	.099	.338	2.877	.002
Mgt. support	.200	.050	.425	3.955	.001
Task comp.	-.159	.041	-.330	-3.932	.000
Competence	.162	.103	.310	2.567	.019

Source: Field survey, (2022)

Table 4.9 displays the regression results. From the table IAE is 4.824 when other factors remain constant. Also, the table reports a rise in IA independence IAE will also increase by .185. Furthermore, an increase in the unit of top management support increases IAE by .200. Moreover, when task complexity increases it leads to a decrease in IAE by .159 whereas an increase in IA competence increases IAE by .162. Finally, the regression results also report that task complexity negatively predicts IAE whereas IA independence, support from management, and IA competence positively and significantly predict IAE.

4.6 Results of the Hypotheses Testing

Results of the study where IA independence, competence, and support from management showed a positive and significant nexus with IAE suggest that hypotheses 1,2, and 3 which expected a purely positive and significant nexus between IA independence, support from management, and

IA competence and IAE are supported. However, the result does not support hypothesis 4, which expected a purely positive and significant nexus between task complexity and IAE.

4.7 Discussions

The results of this research show that support from management, IA independence, and competence have a positive and significantly predict IAE. These findings support the results reported by (Poltak et al., 2019; Kukuiah, 2019; Ta & Doan, 2022; Nedyalkova, 2019; Filfilan, 2022; Eulerich et al., 2021; Mexmonov, 2020 Tahir et al., 2019; Chang et al., 2019). For instance, concerning the result of support from management, a study by Kukuiah, (2019) argued that when IA received the needed support from management, this may help the IA to be provided with adequate resources to enable them to function effectively. Also, the findings of the study revealed that task complexity negatively but significantly predicted IAE. This finding aligns with studies by Alqudah et al. (2019) and Henry et al. (2022).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter presents the summary of the findings, conclusion, and recommendations of the study. The chapter is, thus, divided into three sections. Section one presents a summary of the findings. Section two focuses on the conclusion of the study. Section three presents the recommendations of the study. Further studies and research suggestions are also given.

5.1 SUMMARY OF FINDINGS

This section covers a summary of the main findings of the study relating to the level of internal audit effectiveness in the public sector in the Upper West Region; the determinants of internal audit effectiveness in the public sector in the Upper West Region; and the relationship between the extrinsic factors and internal audit effectiveness in the public sector in Upper West Region.

5.1.1 Level of Internal Audit Effectiveness

Regarding the level of IAE in the public sector. The study revealed that the level of IAE among public organisations in the Upper West is high. This is because according to the results, internal audit improves organisational productivity and can develop an appropriate annual audit plan. This finding agrees with the study by Ta and Doan (2022) and Menzo et al. (2019). For instance, Ta and Doan's (2022) findings established that the ability of an internal audit unit to add value to an organisation by improving the productivity of the entity indicates the effectiveness of IA.

5.1.2 Determinants of internal audit effectiveness in the public sector in the Upper West Region

The results concerning IAE determinants revealed that IA independence among public organisations had a high level. This is because the research shows that IA was given the freedom to discharge their duties without any interference among others. Also, the study revealed that the support given to IA by management was high. Instances such as management providing the needed resources to aid the work of the IA suggested their commitment to IA support. The study further revealed that task complexity was high among the public sector in Upper West Region. These complexities are seen in the areas of performing non-existent tasks. In addition, the finding shows that IA was highly competent. This finding aligns with a study by Tahir et al. (2019) who argued that IA must have the necessary education and professional qualifications in order to add exceptional value to the organisation.

5.1.3 Relationship between the Extrinsic Factors and internal audit Effectiveness in the Public Sector in Upper West Region

The nexus between extrinsic factors and IAE revealed a positive and significant relationship between IA independence, competence, and support from management and IAE. These findings support the results reported by (Poltak et al., 2019; Kukuiah, 2019; Ta & Doan, 2022; Nedyalkova, 2019; Filfilan, 2022; Eulerich et al., 2021; Mexmonov, 2020 Tahir et al., 2019; Chang et al., 2019). However, the research shows a negative and significant nexus between task complexity and IAE. This finding aligns with studies by Alqudah et al. (2019) and Henry et al. (2022). Results of the hypotheses indicate that hypotheses one, two, and three expected positive and significant results among IA independence, competence, and support from management were supported while

hypothesis four which expected a positive nexus between task complexity and IAE was not supported.

5.2 CONCLUSION

The purpose of this study was to examine the effect of extrinsic factors on internal audit effectiveness in the public sector in the Upper West Region of Ghana. A sample size of hundred and fifty-five (155) is used for the study. A stratified sampling technique is used in selecting respondents. One of the objectives of this study was to determine the level of IAE. The study reveals that the level of IAE in the public sector in the Upper West was high. The study further revealed that IA independence, competence, and support from management positively and significantly predicted IAE. However, task complexity negatively predicted IAE. The study concludes that an auditor's independence, competence, and support from management drive IAE and that the internal auditor's propensity to perform effectively does not depend on task complexity. Instead, it depends on the auditor's independence, competence, and most especially management support.

5.3 RECOMMENDATION

Based on the findings of the study, the following recommendations have been made:

1. The results of the research show that support from management positively and significantly drives IAE. Therefore, the study recommends that the Management of the various public organisations should quickly respond and provide the needed resources to aid the IA in discharging their duties. This will enable the IA to function effectively.

2. The findings of the research show that IA independence positively and significantly drives IAE. Therefore, the study also recommends that IA are given the maximum freedom to execute their work without any interference or intimidation. This will help the IA to function effectively.

3. IA competence was also found to positively and significantly drive IAE. Again, the study recommends that management of the various public institutions must ensure the IA are regularly given training and development. This will enhance the competency level among the IA which will eventually assist the IA to function effectively.

5.4 RECOMMENDATION FOR FURTHER STUDIES

This study suggests that future research on the factors that affect IAE should be extended to different regions of Ghana, particularly in the private sector. This will help more empirical results to be found in other to validate the results of this research.

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APPENDIX

QUESTIONNAIRE

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

INSTITUTE OF DISTANCE LEARNING

MSC. ACCOUNTING AND FINANCE

TOPIC: EFFECT OF EXTRINSIC FACTORS ON INTERNAL AUDIT EFFECTTIVENESS.

INTRODUCTION

This questionnaire is designed to assist in collecting data to determine the relationship between extrinsic factors and internal audit effectiveness. The findings of this research are only meant for academic purposes and all the responses will be treated with the utmost confidentiality.

DIRECTIONS: Please read the instructions given and answer the questions as appropriately as possible. It is advisable you answer or fills in each section as provided. Please tick (✓) in the appropriate box.

SECTION A: SOCIO-DEMOGRAPHICS

1. Gender: (a) Male [] (b) Female []
2. Age: (a) 20-29 years [] (b) 30-39 years [] (c) 40-49 years [] (d) 50-59 years []
(e) 60 years above []
3. Educational level: (a) No Formal Education [] (b) Basic Education [] (c) Senior High []
(d) Tertiary [] (e) Others specify.....
4. Professional Qualification (if any)
5. Marital status: (a) Married [] (b) Divorced [] (c) Widowed [] (d) Co-habiting []
(e) Single [] (f) Separated []
6. Years of working: (a) 1-3years [] (b) 4-6years [] (c) 7-10years [] (d) 10 years above []

7. Department: (a) Audit department [] (b) Accounts/Finance Department [] (c) Human Resource Department [] (d) Others (please specify).....

SECTION B: INTERNAL AUDIT EFFECTIVENESS

The statements below relate to internal audit effectiveness in On a scale of 1 – 5, how do you rate the following statements? Please tick (✓) in the appropriate box. 1= Strongly Disagree, 2= Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Items	1	2	3	4	5
8. The internal audit improves the organizational productivity					
9. The internal audit can plan					
10. The internal audit department can implement internal audit recommendations					
11. The internal audit unit can evaluate the consistency of results with set objectives and targets					
12. The internal audit unit can evaluate and enhance risk management					
13. The internal audit unit can monitor and evaluate internal control systems					

SECTION C: DETERMINANTS OF EXTRINSIC FACTORS

Section I: AUDITORS INDEPENDENCE

The statements below relate to Auditor's independence as a determinant of internal audit effectiveness. On a scale of 1 – 5, how do you rate the following statements? Please tick (✓) in the appropriate box. 1= Strongly Disagree, 2= Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Items	1	2	3	4	5
14. Internal review auditors are adequately free to perform their expert commitments and obligations					
15. Internal audit staff have free access to all departments and workers in the organization					
16. The internal audit department has direct contact to the board of directors and top management					
17. Internal audit staff are not asked to perform non-audit functions					
18. Irreconcilable circumstance is once in a while present in the work of inner auditors.					

Section II: MANAGEMENT SUPPORT

The statements below relate to management support as a determinant of internal audit effectiveness. On a scale of 1 – 5, how do you rate the following statements? Please tick (✓) in the appropriate box. 1= Strongly Disagree, 2= Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Items	1	2	3	4	5

19. Management help internal auditors to conduct their duties and responsibilities					
20. Provide reports that are given to the management by internal auditors					
21. Management's response to reports produced by internal auditors					
22. Involvement in planning internal audit					
23. Management provide internal auditors with sufficient resources					

Section III: TASK COMPLEXITY

The statements below relate to task complexity as a determinant of internal audit effectiveness.

On a scale of 1 – 5, how do you rate the following statements? Please tick (✓) in the appropriate box. 1= Strongly Disagree, 2= Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Items	1	2	3	4	5
24. Unstructured audit operations					
25. Non-routine audit works involving more than one place or branch					

26. Spending time in thinking about how best to address audit works before internal audit begins auditing					
27. Performing tasks that have never existed in that way before					
28. Dealing with ad hoc					

Section IV: AUDITORS COMPETENCE

The statements below relate to Auditor's competence as a determinant of internal audit effectiveness. On a scale of 1 – 5, how do you rate the following statements? Please tick (✓) in the appropriate box.

1= Strongly Disagree, 2= Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Items	1	2	3	4	5
29. The professional knowledge of internal auditors is high					
30. Internal auditors are considered as professional					
31. Internal auditors are proactive					
32. There is communication between internal auditors and auditees					
33. Internal auditors attend educational seminars for continuous training					

THANK YOU

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