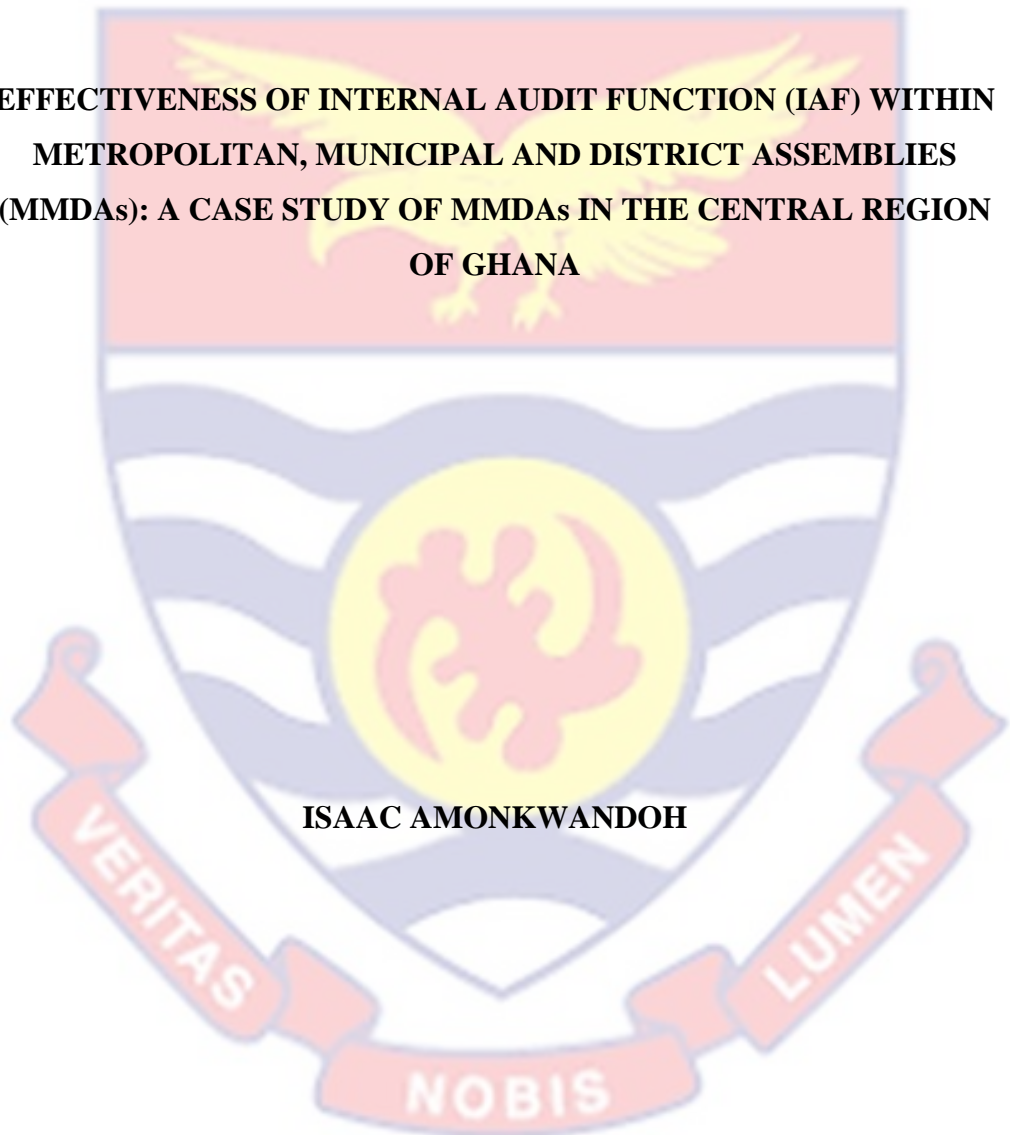


UNIVERSITY OF CAPE COAST

**EFFECTIVENESS OF INTERNAL AUDIT FUNCTION (IAF) WITHIN  
METROPOLITAN, MUNICIPAL AND DISTRICT ASSEMBLIES  
(MMDAs): A CASE STUDY OF MMDAs IN THE CENTRAL REGION  
OF GHANA**



**ISAAC AMONKWANDOH**

2021

UNIVERSITY OF CAPE COAST

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(MMDAs): A CASE STUDY OF MMDAs IN THE CENTRAL REGION OF  
GHANA

BY  
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Dissertation Submitted to the Department of Accounting of the School of  
Business, College of Humanities and Legal Studies, University of Cape Coast  
in Partial Fulfilment of the Requirements for the award of Master of Business  
Administration Degree in Accounting

OCTOBER, 2021

## DECLARATION

### Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature: ..... Date: .....

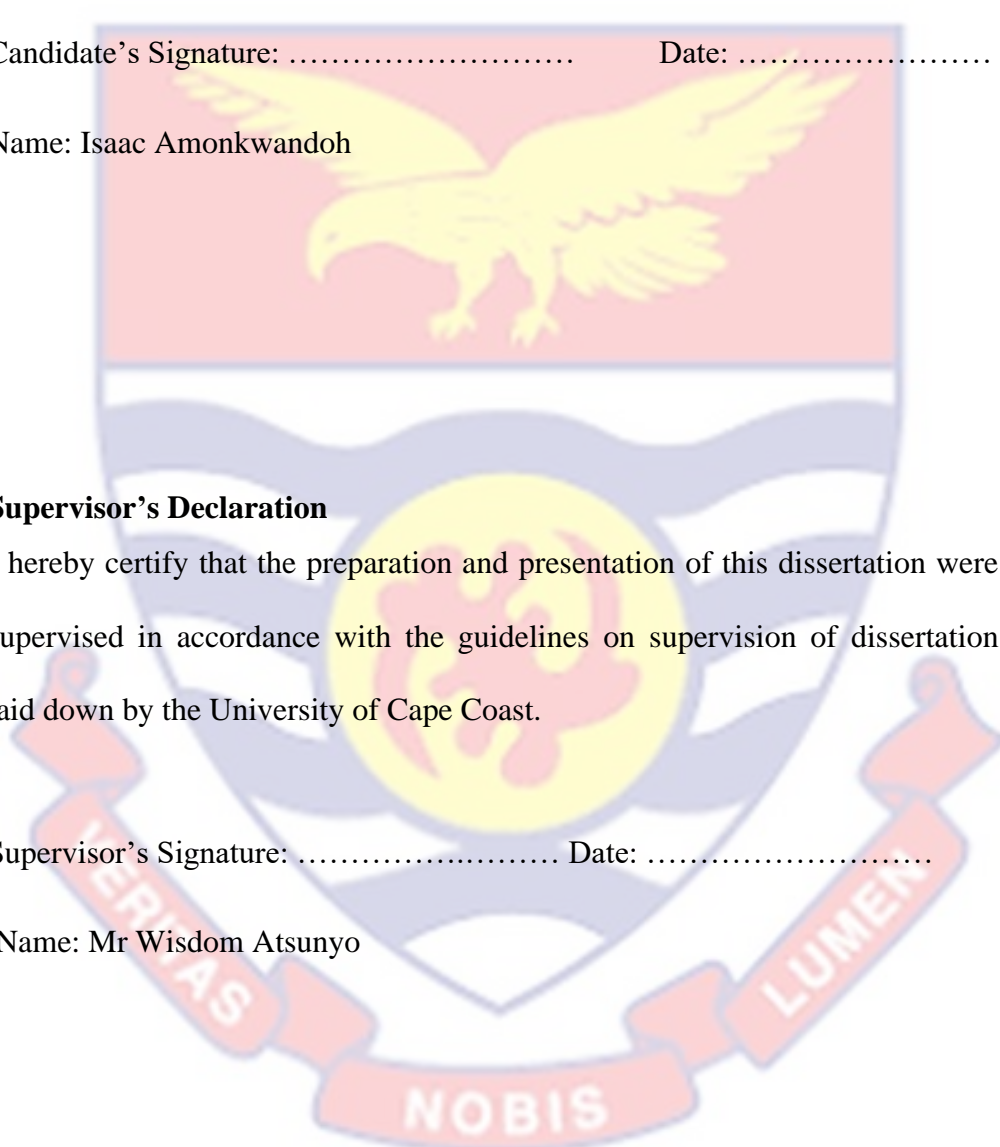
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### Supervisor's Declaration

I hereby certify that the preparation and presentation of this dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Signature: ..... Date: .....

Name: Mr Wisdom Atsunyo



## ABSTRACT

The study examined the extent to which Internal Audit Function (IAF) effectiveness in MMDA's is influenced by factors such as internal auditors' independence, competence, internal auditors' objectivity, management support for internal auditors, and organisational culture. For the purpose of this research, a correlational research design was adopted. The target population consisted of all internal audit staff working in various Metropolitan, Municipal, and District Assemblies (MMDAs) in the Central Region of Ghana with a sample size of one hundred and twenty-three (123). The researcher used questionnaires to gather data from the respondents. The data were analysed with the Statistical Package for the Social Sciences (SPSS) using descriptive, inferential statistics, correlation, and regression analyses. The study found that internal auditor's independence, internal auditor's competence effectiveness, and internal auditors' objectivity significantly predict IAF effectiveness positively. However, the study showed that management support and organisational culture have an insignificant positive effect on IAF effectiveness. Overall, the results contribute to an emerging area within auditing function effectiveness that highlights the significance of understanding the implementation process in adopting and implementing proactive auditing strategies. These findings imply that the MMDAs in Ghana face a number of unique challenges in relation to management support and organisational culture throughout their internal audit function, and for that matter, they are under great pressure and scrutiny to address these issues. The study recommends that resources should be provided by management and management's commitment to use the audit recommendations and strengthen the internal audit, as a dimension of management support cannot directly create internal audit function effectiveness. Management needs to set the tone by setting leadership by example, coupled with the independence of internal auditors, competence, and objectivity of internal auditors.

## KEYWORDS

Auditors' independence

Competence

Internal Audit Function (IAF) Effectiveness

Metropolitan, Municipal and District Assemblies (MMDAs)

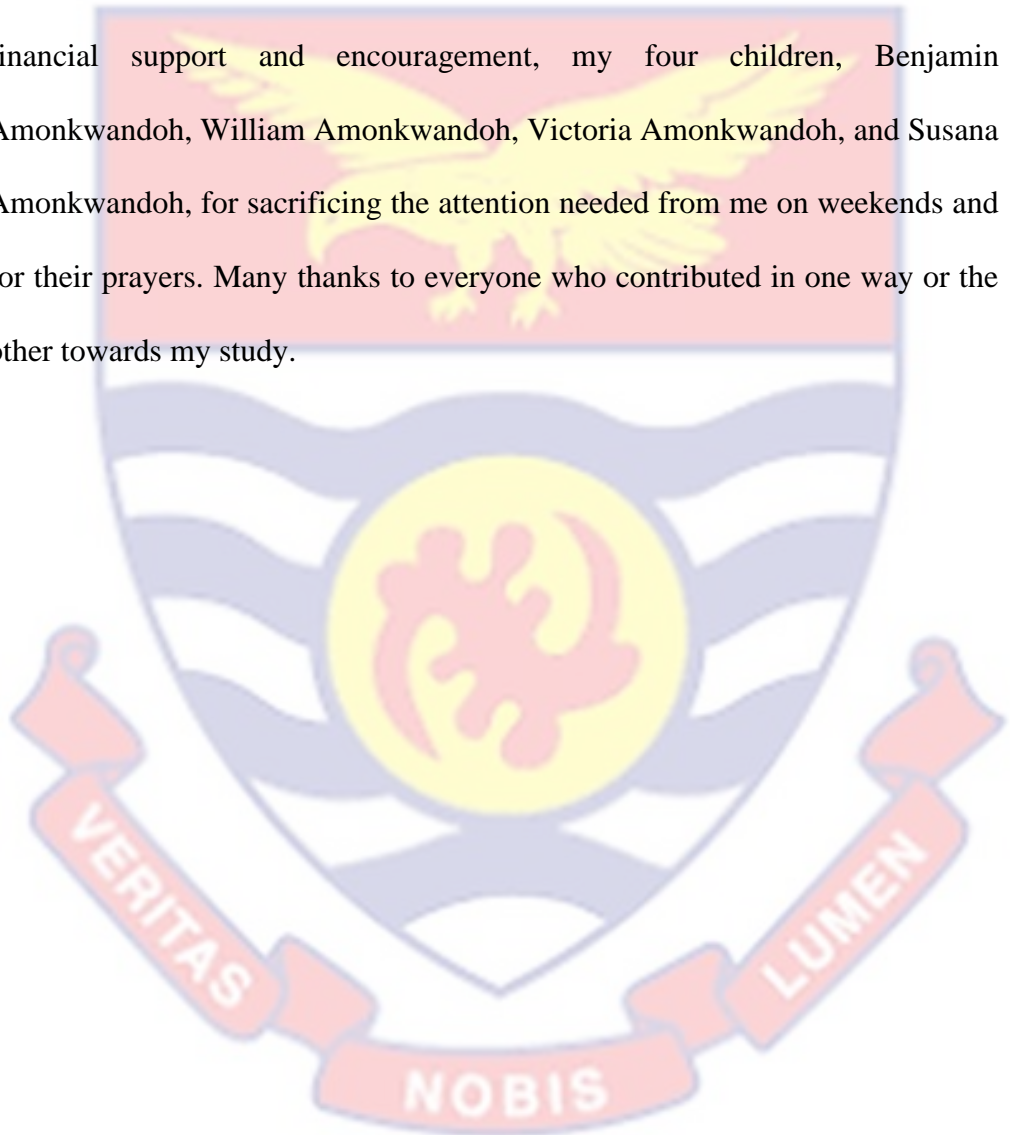
Objectivity



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## DEDICATION

To my wife, Mrs. Elizabeth Amonkwandoh, children, and late parents



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## CHAPTER ONE

### INTRODUCTION

Internal Audit Function (IAF) is very relevant in promoting the business transaction between corporate entities and their potential customers and the public at large. The readability of Internal audit could contribute to effective information delivery between the report writers and the intended audience (Li, 2008). This study explored the effectiveness of Internal Audit Function (IAF) within, Metropolitan, Municipal and District Assemblies in the Central Region of Ghana. This chapter presents the background to the study, statement of the problem, the purpose of the study, the research objectives/hypotheses, significance of the study, delimitation and how the study is organised are all discussed here.

#### **Background to the Study**

Metropolitan, Municipal and District Assemblies (MMDA's) in Ghana are partners to the central government in developing the nation. As partners, they are required to generate enough funds internally to carry out developmental projects (Antwi, 2016). The internal revenue is used to support the statutory District Assemblies Common Fund (DACF) to provide infrastructural development and services to the people. Thus, MMDAs provide social goods and other services such as public roads, education, healthcare, and maintaining law and order. All these responsibilities require enough financial capital and internal revenue mobilization, making it paramount for MMDA's to ensure the availability of funds (Quartey, Aryeetey & Ackah 2014). However, the auditor general's report in Ghana has



consistently over the last decade pointed out a number of internal control system weaknesses and non-compliance with laws and regulations in the examination of MMDA's financial reports, that manifest in the form of losses, potential losses and shortfall in revenue and budget estimates (Avedzi, 2017).

Also, the recent corporate financial crisis and scandals around the globe, for instance; Adelphia, Enron, Global Crossing, and WorldCom, coupled with the increasingly abysmal performance of MMDA's and firms on the African continent, have attracted a great deal of attention of governments, non-commercial and corporate owners, policy makers and other stakeholders on the essence of disclosure requirement in adherence to quality corporate governance (Pelser, Mensah&Ngwenya, 2020; Abor, 2007). Ghana is no exemption from the consequence of financial crisis and scandals leading to the poor performance of non-commercial institutions and corporate bodies that affect the individual firms' performance and, on the whole, the economic performance of mother Ghana (Abor, 2007). The foregoing phenomena indicate that more needs to be done to strengthen internal audit function (IAF) among organisations, particularly MMDA's in Ghana.

“Again, the aforementioned global financial crises coupled with the growing complexity of organisational processes and turbulent ever-changing business environment has led to increased awareness of the need for internal and or external audit assurance on organisational corporate governance practices, internal controls and effective risk management (Pelser *et al.*, 2020; Roussy, Barbe&Raimbult, 2019; Soh&Martinov-Bennie, 2015). The internal audit (IA) function is situated at the crossroads between management



and governance bodies; hence it gained increasing recognition as an important strategic partner for business and governance stakeholders (Roussy *et al.*, 2019; Cohen & Sayag, 2010). IA has received much attention from regulators around the world and in the academic literature due to the fact that it plays a critical role in financial reporting and corporate governance in general (Hazaea, Zhu, Al-Matari, Senan, Khatib, & Ullah, 2021). For instance, Cadbury Committee recommended in the United Kingdom in early 1992 that firms establish IAF to ensure effective governance (Dedman, 2002). Similarly, in the USA, after the Enron scandal, the New York Stock Exchange (NYSE) and the National Association of Securities Dealers Automated Quotations began requiring listed firms to establish IAF in 2003 and 2013, respectively (Securities and Exchange Commission (SEC), 2003, 2013). In Ghana, public sector organisations at both central and local government level such as ministries, departments, metropolitan, municipal and district assemblies as well as listed firms have been required to establish internal audit function (IAF) as stipulated in the 1992 constitution of the Republic of Ghana and the Companies Act 2019 (Act 992).

The internal audit function (IAF) is the cornerstone of the corporate governance (Dedman, 2002), which contributes to improving the productivity, efficiency and performance of the company in both the private and public sector (Mihret, James, & Mula, 2010; Gros, Koch, & Wallek, 2017; Dzikrullah, Harymawan & Ratri, 2020). Given impetus to the global recognition and relevance of IAF as acknowledged in the extant literature, a number of prior studies have attempted to investigate the effectiveness of IAF at the firm-level analysis. For instance, Prawitt, Smith and Wood (2009)

demonstrate that high-quality IAF constrains earnings management, Abbott, Daugherty, Parker and Peters (2016) reveal that IAF improves financial reporting quality, enhance the effectiveness of internal control of financial reporting (Lin, Pizzini, Vargus, & Bardhan, 2011), deter management misconduct (Ege, 2015) and reduce fraud risk (Nor, Ahmad, & Saleh, 2010). In addition, IAF can assist external auditors in evaluating financial report quality, leading to lower external audit fees (Felix, Gramling, & Maletta, 2001) and higher audit efficiency (Lee & Park, 2016). Moreover, Dellai and Omri (2016) indicate that IA has undergone tremendous changes to include value for money attainment, compliance assurance, financial control and assets safeguarding. In this regard, internal auditing is defined as “an independent, objective assurance and consulting activity designed to add value and improve an organisation’s operations. It helps an organisation accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes” (Institute of Internal Auditors, 2004).

Even though IAF function has received much attention from stakeholders and academic research, IA has been questioned regularly by stakeholders in either the public or private sectors as to whether it is effective to have played its monitoring role in terms of timely prevention and detection breaches of controls, increasing transparency and accountability in the management of organisations (Kotb, Elbardan & Halabi, 2020). In recent times, many critics have accused IA as the root cause of global financial crises and corporate failures and scandals around the world. These critics stand to be correct as they have asked thought provoking questions such as

“why did the IAF not raise sufficient alarm before calamity struck? For instance, Deloitte as the internal auditor for a failed company, Carrillion Company was accused of failing in its risk management and financial control capacity that led to the company’s demise (Kotbet *al.*, 2020). Similarly, an independent fact-finding committee report on Toshiba’s IAF accused the IA to have relied excessively on rotational staffing model, which left the IA department vulnerable in terms of competent resources and utilization of IA as consulting service rather than an assurance e provider (Martino, D’Onza, & Melville, 2021; Kotbet *al.*, 2020). The foregoing discussions on corporate failures have awakened the concern of the effectiveness of internal audit function. These concerns are that internal audit neither addresses key risks nor delivers the value it should. Thus, what is expected of an internal audit according to its standards and what it does in practice (Kotb *et al.*, 2020). This phenomenon could be defined as the performance gap about the IAF value addition role, rendering IAF ineffective.

“The effectiveness or ineffectiveness of IAF has attracted the research interests of academicians to investigate the root cause or the contributory factors to the performance gap or success of IA in both public and private sectors. For example, Dellai and Omri (2016) examined the factors influencing internal audit effectiveness in Tunisia using a sample size of 148 chief audit executives in Tunisian organisations. The study revealed that the effectiveness of internal auditing is influenced by the: independence of internal audit, the objectivity of internal auditors, management support for internal audit, use of internal audit function as a management training ground, and sector of the organisation. Similarly, Gamayuni (2018) in a study

conducted in Lampung Province, Indonesia to examine the effect of the internal auditor competence and objectivity, management support and organisational culture on the effectiveness of the internal audit function, using Structural Equation Modeling (SEM) Partial Least Square (PLS) revealed that the internal auditor competence and objectivity, and organisational culture has significant influence to the effectiveness of internal audit function, but management support does not. Further, Christopher (2019) posits that poor structural and functional arrangements of IAF resulting from the lack of clarity about the: role of IA (assurance vs consulting), the organisational position of IA (agent to the board and partner to the management), characteristics of the individuals practising as internal auditors (Membership of IIA) and IA ethical framework (compliance with IA standards).”

### **Statement of the Problem**

The ongoing corporate scandals and financial malfeasance around the world have championed the public campaign for IAF effectiveness in the forefront of public agenda and academic debate. Consequently, internal audit (IA) is increasingly advancing to become a vital component of organisational control (Prasad, 2020). Despite the importance of an internal audit function (IAF), little is known about IAF effectiveness, particularly the contributory factors in the Sub-Saharan Africa region (Prasad, 2020). Various studies have described IAF effectiveness as an underexplored ‘black box’ (e.g., Prawitt, Smith & Wood, 2009; Sarens, 2009), requiring academic research to explore the “black box”. In response to this call, a number of studies (e.g., Chen *et al.*, 2020; Dzikrullah *et al.*, 2020; Jachi & Yona, 2019; Roussy *et al.*, 2019)



have been carried out in the extant literature to examine IAF effectiveness using different lenses.

However, a critical literature evaluation indicates that these prior studies have predominantly focused on either a specific issue or context regarding IAF, limiting our understanding and generalization of findings (Kotbet *al.*, 2020) to represent MMDAs in Ghana. For instance, Bananuka, Nkundabanyanga, Nalukenge, and Kaawaase (2018) argue that previous studies on IAF have focused on the private sector rather than the public and have also predominantly laid emphasis on issues such as internal control, internal audit, value for money and risk management, with little research studies available that have even tested the role of the internal audit function and committee effectiveness in the public sector (Khongmalai, Tang & Siengthai, 2010).

Further, turning on the method protocol used by prior studies, the extant literature indicates that undue emphasis has been given to the qualitative paradigm giving preferences to relatively unstructured and traditional research methodology. This, however, tends to be skewed and one-sided in approach, biased, narrative and descriptive, lacking critical assessment, yielding different outcomes that are indefensible. These concerns result in a need for a more comprehensive, objective analysis of IAF effectiveness studies. Again, there is the scanty academic research evidence on IAF effectiveness as well as the contributory factors to IAF effectiveness, despite the global recognition of IAF as the cornerstone (Dzikrullah *et al.*, 2020) of good corporate governance that contributes to improving the productivity, efficiency and performance of the company in both private and

public sector (Dellai & Omri, 2016; Gros, Koch, & Wallek, 2017). Dellai and Omri (2016) argue that research to investigate the effectiveness of IAF and its determinants are warranted in the twenty-first century because this research issue has limited academic evidence, even though several calls have been made to reiterate the role of IAF as an element of good corporate mechanism in contemporary scientific research compared to external audit studies. Despite the fact that there is a growing research interest with respect to IAF effectiveness in developed economies, pieces of evidence show that the case is very different in developing countries, particularly Ghana, as very few studies have been executed to investigate this concept (Alzeban & Gwilliam, 2014).

Finally, the findings from prior studies are mixed, fragmented and inconclusive. For instance, Gamayuni (2018) found that internal auditor competence and objectivity, management support and organisation culture significantly influence IAF effectiveness except for management support. Dellai and Omri (2016), in their study to examine IAF effectiveness, found IAF effectiveness to be influenced by independence of IA, the objectivity of internal auditors, management support, and internal audit as management training grounds and sector of an organisation. On the contrary, Kotbet *al.* (2020) demonstrates that IA literature has not significantly contributed to knowledge of the internal audit function (IAF). One still knows relatively little about the factors that contribute to making the impact of IA practice effective and measurable. Consequently, this study fills this knowledge gap by examining the contributory factors to IAF effectiveness in non-for-profit



organisations in Ghana, using MMDAs in the Central Region of Ghana as the research setting.

### **Purpose of the Study**

Generally, the study examines the extent to which IAF effectiveness in MMDA's in the Central region of Ghana is influenced by factors such as internal auditors' independence, competence, internal auditors' objectivity, management support for internal auditors and organisational culture.

### **Research Objectives**

The study is guided by the following specific research objectives:

1. examine the extent to which internal auditors' independence affects IAF effectiveness in MMDAs in the Central region of Ghana.
2. assess the extent to which IAF effectiveness in MMDAs in the Central Region of Ghana are affected by internal auditors' competence.
3. assess the extent to which IAF effectiveness in MMDAs in the Central Region of Ghana are affected by internal auditors' objectivity.
4. evaluate how management support for internal auditors affects IAF effectiveness in MMDAs in the Central Region of Ghana.
5. examine the influence of organisational culture on IAF effectiveness in MMDAs in the Central Region of Ghana.

## **Research Hypotheses**

The following hypotheses guide this particular study:

H1: There exist statistically significant positive effect of internal auditors' independence on IAF effectiveness in MMDAs in the Central Region of Ghana.

H2: There exist statistically significant positive effect of internal auditors' competence on IAF effectiveness in MMDAs in the Central Region of Ghana.

H3: There exist statistically significant positive effect of internal auditors' objectivity on IAF effectiveness in MMDAs in the Central Region of Ghana.

H4: There exist statistically significant positive effect of management support on IAF effectiveness in MMDAs in the Central Region of Ghana.

H5: There exist statistically significant positive effect of organisational culture on IAF effectiveness in MMDAs in the Central Region of Ghana.

## **Significance of the Study**

A study of this nature will contribute significantly to humanity in three folds. Firstly, it will contribute to improving on the internal audit function practices. Thus after more than a decade of continuous implementation of fiscal decentralization in Ghana, there is an urgent need to have some mechanisms to ensure that MMDAs in the Central Region comply with local and international standards, laws and rules relating to internal auditing to ensure proper financial reporting requirement and good corporate governance. Consequently, an independent study examining contributory factors to IAF effectiveness in non-for-profit organisations in Ghana, using

MMDAs in the Central Region of Ghana as the research setting, is essential to help MMDAs design efficient and effective internal auditing mechanisms.

Secondly, a study of this nature will contribute to knowledge by filling the knowledge gap identified by prior studies (e.g., Dellai & Omri, 2016, Bananuka *et al.*, 2018, Gamayuni, 2018, Kotbet *al.*, 2020) that call for IAF effectiveness to examine the contributory factors using non-for-profit making organisations in developing economies context, particularly in Africa.

This study will also contribute to the burgeoning IA literature by establishing the extent to which variables such as internal auditors' independence, competence and objectivity of internal auditors, management support for internal auditors and organisational culture will affect IAF effectiveness in the public sector. It will also contribute to the IA literature by identifying new drivers and illustrating the complementarity and interconnections between the IA effectiveness building blocks. Finally, government, IA stakeholders and other regulatory bodies may fall on the findings to formulate and implement IAF effectiveness policies that will help neutralize the deficiencies repeatedly reported on the financial reporting and internal control systems in the activities of MMDAs.

### **Delimitation of the Study**

The study focuses on contributory factors to IAF effectiveness in non-for-profit organisations in Ghana, using MMDAs in the Central Region of Ghana as the research setting because recent studies (e.g., Bananuka *et al.*, 2018, Gamayuni, 2018; Kotbet *al.*, 2020) are calling for such a research gap to be filled in the public sector relative to the private sectors. They argue that

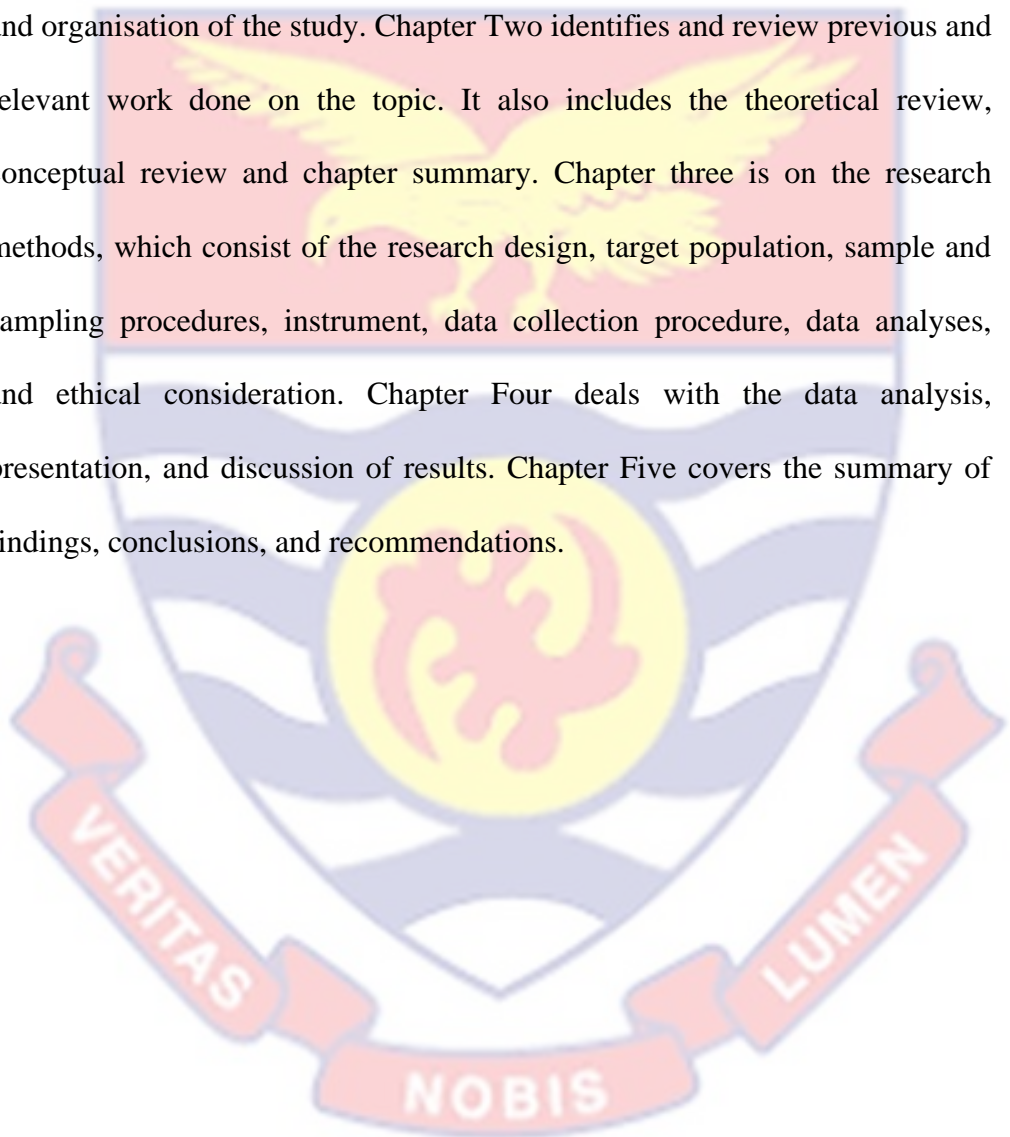
a mere existence of internal audit does not mean IAF effectiveness due to certain impairment factors. The study will not cover the entire scope of internal audit activities of MMDAs and, for that matter, all internal auditing activities, including internal controls and internal audit procedures.

However, the researcher believes that there are other internal auditing activities quite relevant but not appropriate to the study. The study does not also cover all the MMDAs, even though the recommendations to be made could be adopted by all MMDAs in Ghana and even beyond. The research work covers only the MMDAs in the Central Region of Ghana because the region has all the levels of local governance ranging from a metropolitan through the municipality to a district assembly, hence adequate to explain the internal audit function effectiveness issues happening in other parts of the country. It also looks at the expenditure items incurred from revenue mobilized to identify the seeming causes of expenditure -revenue gaps year by year in the Assembly. Also, the researcher is an auditor in the region hence data collection will be efficient and effective in obtaining rich data through contacts with people with the expertise and experience to respond to the questionnaire. Also, because of the time factor and the nature of the academic calendar of the researcher's university, the study variables will be restricted to IAF effectiveness as the dependent variable and internal auditors' independence, competence and objectivity of internal auditors, management support for internal auditors and organisational culture as the independent variables.



## Organisation of the Study

This study is organised into five chapters. Chapter One covers the introduction to the study grouped under the following headings; background of the study, statement of the problem, the purpose of the study, objectives of the study, research questions, significance of the study, the scope of the study and organisation of the study. Chapter Two identifies and review previous and relevant work done on the topic. It also includes the theoretical review, conceptual review and chapter summary. Chapter three is on the research methods, which consist of the research design, target population, sample and sampling procedures, instrument, data collection procedure, data analyses, and ethical consideration. Chapter Four deals with the data analysis, presentation, and discussion of results. Chapter Five covers the summary of findings, conclusions, and recommendations.



## CHAPTER TWO

### LITERATURE REVIEW

#### Introduction

Generally, this chapter reviews scholarly viewpoints on theories and the factors influencing IAF effectiveness as advanced in the domain of academic knowledge by prior studies. As an introduction to this chapter of the study, the researcher brings to bear the constituents of the main issues reviewed chronologically. The major themes of the literature review under this phase include the theoretical review, conceptual review, empirical review, summary of the literature review and finally climaxed with the conceptual framework of the study.

#### Theoretical Review

This section reviews the scholarly views on institutional theory, specifically the three main constructs of the theory: coercive isomorphism, normative isomorphism, and mimetic isomorphism. This section also throws light on the appropriateness of the theory to this particular study of IAF effectiveness among MMDA's. The subsequent section provides details of the issues under the theoretical framework.

#### Institutional theory

This study adopts the institutional theory as the fundamental underpinning of delivering value and responding to stakeholders of MMDA's demands for legitimacy through effective audit function activities. The central premise of this theory is that organisations are motivated by pressures outside the organisation to achieve legitimacy towards external stakeholders



rather than being driven chiefly to optimise organisational performance (Powell & DiMaggio, 1983; Deephouse&Suchman, 2008; Nor *et al.*, 2010; Prasad, 2020). The theory's central tenet is that organisations with the same characteristics tend to share external stakeholders in common, strikingly the same organisational behaviours and design emanating from environmental pressures.

The institutional theory draws attention to the belief that organisations such as MMDA's can respond to pressures from stakeholders in diverse ways. This is consistent with Powell and DiMaggio (1983), who contend that rational actors similarly respond to three forms of forces, known as isomorphic institutional forces, to drive change and demonstrate effectiveness. Generally, these isomorphic forces are ground into three, namely, compliance with regulations (coercive isomorphism), adherence to professional practices (normative isomorphism), and adoption of best practices through imitation of other players(mimetic isomorphism) (Prasad, 2020). Below is a detailed explanation of the building blocks of the institutional theory.

### **Coercive isomorphism**

Powell and DiMaggio (1983) describe coercive isomorphism as the force that allows organisations to gain legitimacy by adapting and conforming to cultural expectations. Prior studies that have examined the effects of coercive isomorphism argue that it can be considered an influential factor in driving change and expressing legitimacy (Prasad, 2020). Since expectations are often embedded in-laws and regulations, coercive force combines the effectiveness and legitimacy of the IAF with compliance with

these laws and regulations. Carcello *et al.* (2005) provide evidence that coercive force is a powerful driver of change by highlighting notable increases in AI budgets and staffing levels since the enactment of the Sarbanes Oxley (Sox) in the year 2002. It is interesting to note that countries that impose an IAF, for example, the NYSE requirements in the United States, do not specify the factors that determine the function, perhaps because there is no clear direction as to what defines an effective IAF. To establish an identity for the profession, the regulation of the roles of an IAF is an important factor. In developing countries, coercive force can be a powerful driver for demonstrating the legitimacy of an IAF.

### **Normative isomorphism**

This perspective is based on social networks and professionalism as drivers of change (Prasad, 2020). The professional identity and practices of networks and professional standards create the norm and pressure for entities to adapt. Therefore, in the context of a strong normative force of the IAF, IAs would make it possible to resort to established professional networks and standards to influence their performance and demonstrate legitimacy. Boamah (2020) note that IIA standards in the UK are essential guidelines to ensure that IAF provides value-added quality. However, low self-assessed compliance scores indicate the obvious gap in the IIA's prescriptive normative guidelines and what is applied in practice (Simpson *et al.*, 2016). This can be an indicator of a lack of professional identity. Deephouse and Suchman (2008) argue that the IAF lacks the power to intimidate and be considered a 'genuine profession' as internal auditors are often intimidated by the senior management. The IAF is perceived as a 'jack of all trades' as

opposed to masters of specific disciplines, which pose a threat to the long-term sustainability of the profession.

### **Mimetic isomorphism**

Mimetic isomorphism occurs when organisations that are uncertain about social expectations model their operations based on surrounding companies that have successful and legitimate characteristics (Powell & DiMaggio, 1983). In the context of an IAF, a strong mimetic force would be exemplified by organisations that mimic a market leader's introduction of a particular governance approach to lead its IAF. A literature review shows that information about the direct mimetic influence on IAF is scarce. From an indirect perspective, the focus of IAF activities on end customers' expectations can serve as an indicator of success. So IAF activities are a good value, should IAF have a common understanding of the expectations of its customers (Flesher & Zanzig, 2000).

### **Application of institutional theory to the study**

This theory applies to IAF effectiveness study because for MMDA to demonstrate professionalism geared towards legitimacy in the eyes of stakeholders of IA, they need to deliver evidence of the value that IA adds to the organisation through being effective to affect its survival and the quality of service they deliver to the general public. This means that MMDAs as rational actors respond to change towards IAF effectiveness by adapting, complying and adherence to cultural regulations (Coercive isomorphism), compliance with professional practices, standards and social networks (normative isomorphism) and adopting best practices by mimicking other

players (mimetic isomorphism) (Powell & DiMaggio, 1983). Davies (2009) and Cohen and Sayag (2010) argue that institutional mechanisms such as coercion, professionalism and mimetic towards legitimacy can influence MMDAs to work towards IAF effectiveness. This argument is consistent with studies (e.g., Dellai&Omri, 2016, Bananuka *et al.*, 2018, Gamayuni, 2018) that found that factors such as internal auditors' independence, competence and objectivity of internal auditors, management support for internal auditors and organisational culture.

## **Conceptual Review**

### **Concept of IAF effectiveness**

The extant literature on IAF effectiveness is mixed and scanty even though there is an increasingly high demand for accurate and reliable financial statements and good corporate governance, which can be achieved through IA effectiveness. As indicated by Roussy *et al.* (2019) in their seminal works, they described IA effectiveness as a “black box”. This terminology was used represent describe IA effectiveness because the concept remains unclear and tricky despite the fact that IA effectiveness literature is rich and has primarily explored the drivers and indicators of IAF indicators. Similar evidence by Kotbet *al* (2020) and Lenz, Sarens and Jeppesen (2018) that provide support Roussy *et al.* (2019) also contend that IA effectiveness is very hard to define due to the fact there is no agreement among scholars as to how to evaluate IA effectiveness; therefore it continues to be viewed as a black box in the IA effectiveness literature. Moreover, it is also observed that IA effectiveness is a tricky concept that has been given little attention in auditing and accounting studies (Dellai & Omri, 2016).



Notwithstanding the difficulty associated with defining IA effectiveness, some scholars have made an effort to provide some definitions to the concept. For example, Dittenhofer (2001) defined IA effectiveness as “the achievement of objectives and goals of the IAF. Based on the official definition of IA, the ultimate objective of the internal audit function is the creation of value-added to the organisation”. Consequently, Grosset *al.* (2017) opined that IAF that can create value to the audited department and the organisation as a whole is considered an effective IAF. For this reason, prior evidence by Walter and Guandaru (2012) indicates that IAF adds value to an organisation by providing management and board of directors with the ability to evaluate and improve the effectiveness of risk management, internal control, and governance processes (Dellai & Omri, 2016).

Similarly, Lenz *et al.* (2018) defined an effective IA as the one that “reviews the major risk areas of an organisation in order to contribute to the achievement of company objectives by positively influencing corporate governance.” Prior literature identifies IA effectiveness drivers and indicators, named “the building blocks” of IA effectiveness by Lenz *et al.* (2018), who segregate them into four categories: organisational characteristics, IA relationships, IA resources and IA processes (Roussyet *al.* (2019). Consequently, these variables will form the basis for measuring IAF effectiveness in this current study.

### **Factors affecting IAF effectiveness**

A thorough literature review within the domain of factors that affect IAF effectiveness reveals that some factors have been identified in developed



and developing economies by earlier studies. Among the factors identified in the literature include internal auditors' competence, independence of the internal auditor, the objectivity of the auditor and organisational culture (Alzeban & Gwilliam 2014; Dellai & Omri, 2016; Angela & Husnatarina, 2015; Gamayuni, 2018). These factors have been discussed below in detail.

### **Internal auditors' competence**

One of the key determinants of internal audit function effectiveness is the competence level of the internal auditing staff (Al-Twajjry *et al.* 2003; Alzeban & Gwilliam 2014; Dellai & Omri, 2016). For this reason, the importance of an internal audit team that has the knowledge, skills and other abilities necessary to carry out its responsibilities has been highlighted by the International Standards for the Professional Practice of Internal Auditing (ISPPIA) (ISPPIA, standard 1210).

The Common Body of Knowledge/CBOK Study (2010) defined competence as the ability to adequately perform a task, duty or role, which integrates knowledge, behavioural and technical skills, abilities, personal values and attitudes. This implies that the internal auditors must collectively have the education, professional qualifications, experience, and training to add value and improve the organisation's operations (Mihret & Yismaw 2007; Ali & Owais 2013; Gamayuni, 2018). In addition, internal auditors require good interpersonal skills in communication, persuasion, collaboration and critical thinking to perform their duties effectively (Prawitt & Smith, 2009; Fanning & Piercey, 2014). In addition, external auditors use skills as a critical criterion for assessing AI performance (Al-Twajjry *et al.* 2004; Abbass & Aleqab 2013). According to Pickett (2010, p.387), the internal

auditor must have the knowledge, skills and other skills necessary to discharge his or her responsibilities. Cheng *et al.* (2002) suggested that auditor competence is composed of two factors, namely knowledge and behaviour. Accounting firms must prepare their auditors with good negotiation skills when dealing with management (Angela & Husnatarina, 2015; Gamayuni, 2018).

### **Objectivity**

Objectivity refers to an unbiased mental attitude that enables internal auditors to perform their duties consistent with ethical and standards so that stakeholders and users of the audit reports will have confidence in the results of their work and also believe that there are no compromises (Pickett, 2010, p. 340; Institute of Internal Auditors (IIA), 2012; Dellai & Omri, 2016; Gamayuni, 2018). Objectivity is the mental attitude of the internal auditors when performing the inspection so that they truly believe in the results of their work and achieve quality results (Colbert, 1993). There are three main facets of objectivity. These are impartial, unbiased attitudes and avoidance of any conflict of interest (Pickett, 2010, p.387; Institute of Internal Auditors (IIA), 2012; Brandon, 2010). Internal audit effectiveness is most to be influenced when the auditing staff in question partial, bias and allows conflict of interest to override on their professional duties either overtly or covertly.

### **Independence of internal audit**

Over the decades, professional associations and standard-setters have emphasized the importance of the independence of internal auditing for the quality of internal auditing despite its employment status in the

organisation. Independence is a key element in the effectiveness of IA (Mutchler 2003; Ahmad et al. 2009; Al-Akra et al. 2016; Dellai & Omri, 2016). ISPPIA (standard 1100) requires that internal auditing must be independent in the achievement of its work in order to create added value for the organisation. An appropriate level of independence can ensure that the internal auditors adhere to ethical and professional standards and guidelines to report administratively to the executive board and functionally to the executive board. Management and other stakeholders should ensure that internal auditors have unrestricted access to records, personnel and departments, avoids conflicts of interest, is not allowed to perform non-audit work and is a member of the IIA and Institute of Chartered Accountants (ICAG) Ghana (Christopher et al. 2009; Dellai & Omri, 2016; Gamayuni, 2018).

### **Management support**

“Management support is provided by the company and intended to support the work processes, including training and development, performance standards, equipment and technology (Gamayuni, 2018). According to Cohen and Sayag (2010), top management support includes providing the support required for internal audit, the good relationship between the number of internal auditors and the planned and completed audit work, and the Internal Audit Department’s budget, which is sufficient to support the training and development of internal audit staff. Management support for internal audit includes responses to audit results, commitment to strengthening internal audit, and resources for internal audit (Alzeban & Gwilliam, 2014; Dellai & Omri, 2016; Gamayuni, 2018). This study

measures management's support through indicators such as resources provided by management, management's obligation to use audit recommendations and strengthen internal audit (Gamayuni, 2018; Cohen & Sayag, 2010; Dellai & Omri, 2016).

### **Organisational culture**

Organisational culture consists of comprehension and principal assumptions of an organisation. This study measures organisational cultures referring to McShane and Von Glinow (2015, p.419), Robbins and Coulter (2012, p.80), and Robbins and Judge (2012, p.552) are as follows:

- i. Innovation and risk-taking indicate how many employees are encouraged to be innovative and to take or risk. The characteristics dimensions of innovation and risk-taking consist of an experiment, opportunity seeking and risk-taking.
- ii. Aggressiveness indicates how many employees are aggressive and competitive. The characteristic dimension of aggressiveness consists of competitive, low emphasis on social responsibility.
- iii. Stability, the dimensions of organisational culture that show how many organisation activities emphasise the maintenance of the status quo as opposed to the emphasis on growth. The characteristic dimension of stability consists of predictability, security and the rule-oriented.
- iv. Attention to detail indicates the analysis accuracy of employee and the organisation's attention. The characteristic of this dimension consists of precise and analytical.



- v. Outcome orientation indicates how many men focusing on results (outcomes) rather than on the techniques and processes used to achieve the objectives, the characteristics dimensions that are action-oriented, high expectation and result oriented.
- vi. People-oriented indicates how many management decisions that incorporate considerations influence the results (outcomes) of the employees in the organisation. Characteristic of this dimension consists of fairness and tolerance.
- vii. Team-oriented, shows how many work activities organised in teams rather than the individual. The characteristic dimension is collaboration. The internal audit function will be effective if it can achieve the desired objectives (Cohen & Sayag, 2010), whether the internal audit objective is to improve the efficiency and effectiveness of the organisation (Dellai & Omri, 2016; Gamayuni, 2018). Moeller (2005, p.269) and the Institute of Internal Auditors (IIA) (2012) both say that effective internal audit functions have the following six dimensions: planning, communication and approval, management resources, policies and procedures, coordination, reporting to the board and senior management.

## **Empirical Review**

### **Competence and internal audit function effectiveness**

Chevers, Lawrence, Laidlaw and Nicholson (2016), in their study conducted to investigate the factors influencing IAF effectiveness of banks in Jamaica, found the quality of organisational independence, audit investigation, management support and professional skills to have a



significant effect on the effectiveness of the internal audit. They, therefore, alluded that shareholders and policy makers need to understand the essential role of internal auditor competence in financial health and stability of the financial institutions. Supporting evidence in other jurisdictions suggests that the competence of internal audit is a critical factor for the effectiveness of IA (Van Gansberghe, 2005; Al-Matarneh, 2011).”

A study conducted in Saudi by Al-Twajryet *al.* (2003) found that the appropriate level of competence of internal audit staff in terms of training, experience, knowledge and professional qualifications has a positive impact on the effectiveness of the impact assessment. Corroborative results were obtained in other studies in Malaysia (Ahmad *et al.* 2009), Iran (Alizadeh, 2011) and South Africa (Staden & Steyn 2009). In addition, Ziegenfuss (2000) ranked the auditor’s level of training, staff experience, percentage of certified staff and training hours per internal auditor among the most important inputs of internal audit performance. Hung and Han (1998) study in Taiwan found that the training and professional skills of internal auditors positively and significantly influence the progress of the annual audit plan.

Further, Abdolmohammadi (2009) has shown that Certified Internal Auditors improve compliance with isppia in Anglo-Saxon countries. Other studies suggest that the lack of competence of the internal auditor is an obstacle to the effectiveness of IA in a number of African countries such as Ethiopia, Ghana and Kenya (Mihret&Yismaw 2007; Onumah & Yao Krah 2012; Walter & Guandaru 2012). The competence of the internal auditor influences the effectiveness of the internal audit function. This is consistent

with Moeller (2005, p. 294) and Arens and Loebbecke (1997, p. 788) that the internal auditor should have the competence to perform his duties, which can constitute an effective internal audit function. The results are also consistent with research carried out by Messier and Schneider (1988), Maletta (1993), Cohen and Krishnamoorthy (2002), Desai et al. (2006) and Soh and Martinov-Bennie (2015), that the competence of the internal Auditors influenced the effectiveness of the internal audit function.”

### **Objectivity and IAF effectiveness**

The objectivity of the internal auditor has a significant influence on the effectiveness of the internal audit function. Internal auditors are effective if they are independent (objective) in the business unit being evaluated (Arens and Loebbecke, 1997, p.788). This corroborates with Desai *et al.* (2006), Soh and Martinov-Bennie (2015), Messier and Schneider (1988), Maletta (1993) and Cohen and Krishnamoorthy (2002) that there is a significant influence of the objectivity of the internal auditor on the effectiveness of the internal audit function. Based on the result of this study, an unbiased and unbiased attitude reflects the objectivity of the internal auditor and effectively influences the internal auditor’s function, but avoiding conflicts of interest does not reflect the objectivity of the internal auditor (Gamayuni, 2018). This means that the government’s internal auditor should have an unbiased and impartial attitude in his work to achieve an effective internal audit function (Dellai & Omri, 2016; Gamayuni, 2018).

### **Independence and IAF effectiveness**

A limited number of studies that have examined this issue have found that the greater the independence of internal audit department, the greater the internal auditor's effectiveness (Gamayuni, 2018). Evidence by Alizadeh (2011) showed that the organisational independence of the IAF is one of the five important factors in the effectiveness of AI in Iranian companies. In addition, Cohen and Sayag (2010) found that organisational independence was positively related to the quality of the audit and the evaluations of the people audited, which were the two dimensions of AI effectiveness in the Israeli context.

Other studies have supported these findings, indicating that there is a positive association between AI effectiveness and the organisational status of CAE (Hung & Han, 1998; Soh&Martinov-Bennie,2015; Alzeban&Gwilliam, 2014). In addition, Radzi *et al.* (2011) noted that organisational independence from internal audits could reduce profit management in Malaysian publicly traded companies. Gramling *et al.* (2004), Abdolmohammadi (2009) and Arena &Azzone (2009) revealed that AI effectiveness increases when the EAC is affiliated with the IIA.

### **Management support and IAF effectiveness**

Gamayuni (2018) conducted a study on 225 respondents selected from local government inspectorate agencies of the province/city/regency in Lampung, Indonesia found that there is no significant influence of management support to the internal audit function effectively. The study result depicts that resources provided by management and management's commitment to use the audit recommendations and strengthen the internal

audit, as a dimension of management support cannot influence internal audit function effectively. However, this result contradicts Cohen and Sayag (2010), who stated that audit findings and recommendations would not work much without the support and commitment from management to implement them. This is also inconsistent with Sawyer's (2003) assertion that management support for the internal audit function has long been considered critical to the success. This outcome study supports research by Cohen and Sayag (2010), D'aquila (1998), Alzeban and Gwilliam (2014) and Mihret and Yismau (2007) that management support effectively affects the internal audit function. These earlier studies point out that management support is an important factor in creating the internal audit function effectively. This implies that management support affects the competence of the internal auditor before effectively affecting the internal audit function."

### **Organisational culture and IAF effectiveness**

"Gamayuni (2018) conducted a study of 225 respondents selected from local government inspection agencies in Lampung Province/City/Regency, Indonesia, found that organisational culture significantly influences the effectiveness of the internal audit function. Based on the result of this study, organisational culture (aggressiveness, results orientation and results orientation) influenced the effectiveness of the internal auditor function. This support suggests that organisational culture is a way to further improve employee quality to achieve company or organisation goals (Kinicki & Kreitner, 2007). This resulting study is in line with the research of Ostroff and Schmitt (1993). However, the other four dimensions of the culture of the organisation, such as innovation and risk-taking, stability,



attention to detail, and people orientation, did not reflect the culture of the organisation in the result of this study.

### Conceptual Framework

Consistent with the theory, concepts and empirical reviews above, the figure below is developed as the conceptual framework of this particular study.

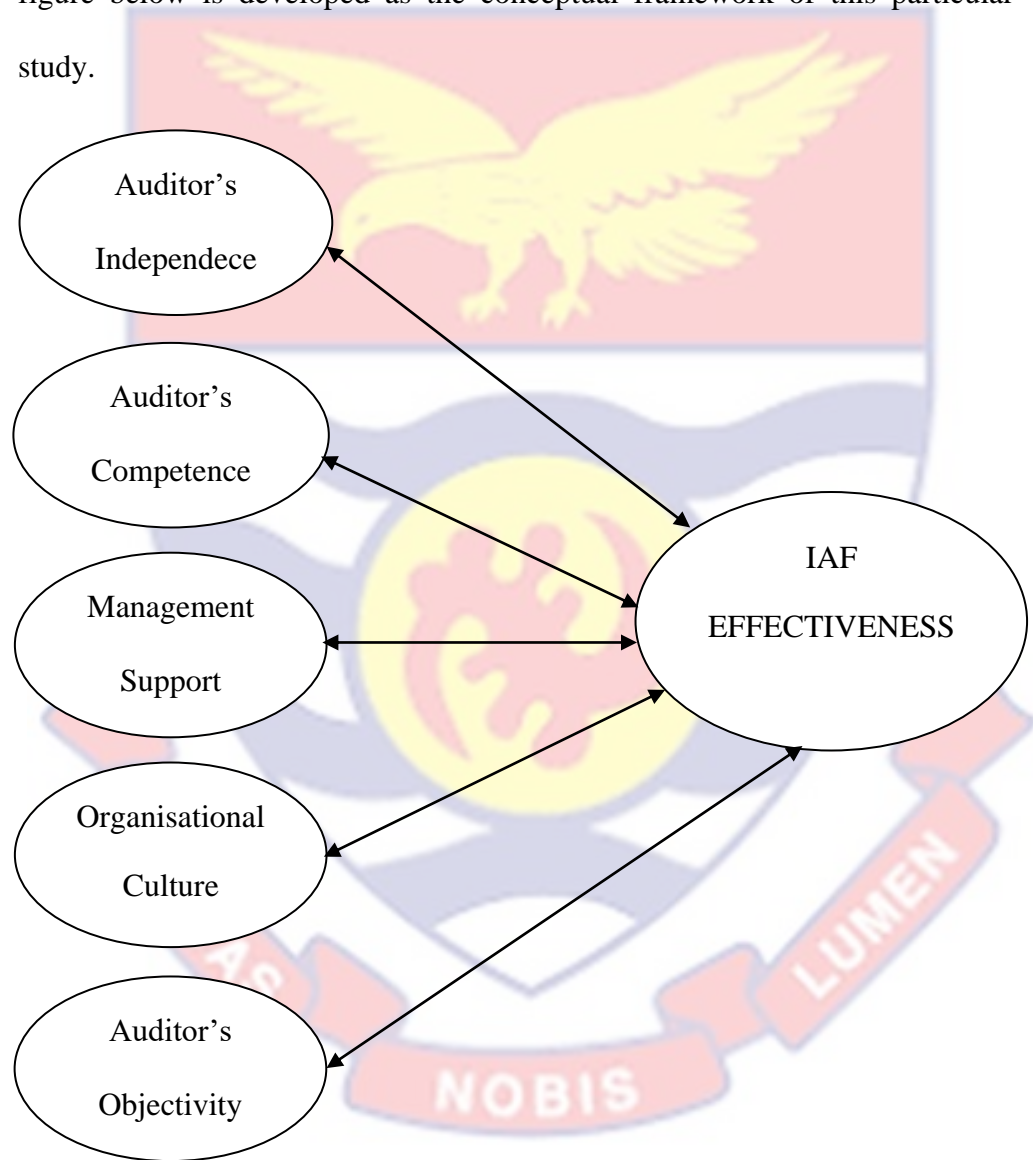


Figure 1: Conceptual Model on the IAF Contributory Factors and IAF Effectiveness among MMDAs

Source: Author's Construct (2020)



The model above depicts how internal audit contributory factors affect the IAF effectiveness drawing on the institutional theory and relevant literature such as Dellai and Omri (2016) and Gamayuni (2018). The IAF contributory factors in this study include auditor's independence, management support, competence, objectivity and organisational support.

### **Chapter Summary**

Even though several research attempts have been made in the quest to understand IAF effectiveness, there is still scarce and scanty academic research evidence on IAF effectiveness as well as the contributory factors to IAF effectiveness, despite the global recognition of IAF as the cornerstone (Dzikrullah *et al.*, 2020) of good corporate governance that contributes to improving the productivity, efficiency and performance of the company in both private and public sector (Dellai & Omri, 2016; Gros, Koch & Wallek, 2017). As a result, Gamayuni (2018), in a study to examine the effect of internal auditor competence and objectivity, management support, and organisation culture on the effectiveness of the internal audit function, found that these variables have a significant influence on IAF effectiveness with the exception of management support. Dellai and Omri (2016), in their study to examine IAF effectiveness, found IAF effectiveness to be influenced by all these factors: independence of IA, the objectivity of internal auditors, management support, and internal audit as management training grounds and sector of the organisation.

Chevers, Lawrence, Laidlaw and Nicholson (2016), in their study conducted to investigate the factors influencing IAF effectiveness of banks in Jamaica, found the quality of organisational independence, audit

investigation, management support and professional skills to have a significant effect on the effectiveness of the internal audit. They, therefore, alluded that shareholders and policy makers need to understand the essential role of internal audit in financial health and stability of the financial institution.

On the contrary, Kotbet *al.* (2020) demonstrate that IA literature has not significantly contributed to the knowledge of the internal audit function (IAF), and one still knows relatively little about the factors that contribute to making the impact of IA practice effective and measurable. They added that the handful of the literature that has not contributed significantly to this field has focused on the American context (publicly listed companies), is reliant on positivist analyses and largely makes no explicit reference to theory. Central regions (emerging economies) and key organisational settings (private SMEs and not-for-profit organisations) are largely absent in prior IA research.

Turning on developing the hypotheses based on the contributory factors, Moeller (2009) contends that IAF effectiveness will be determined by internal auditors' competence and objectivity. This implies that internal auditors who are very competent perform their duties well to achieve an effective IAF. Accordingly, the study will formulate this hypothesis:

*H2: Internal audit function effectiveness will be influenced positively by internal auditors' competence and objectivity in MMDAs in the Central Region of Ghana*

Gamayuni (2018), in a study to examine the effect of internal auditor competence and objectivity, management support and organisation culture on

the effectiveness of the internal audit function, found that the variables have a significant influence on IAF effectiveness with the exception of management support. Similarly, Dellai and Omri (2016), who examined factors influencing internal audit effectiveness in the Tunisian context, found that the effectiveness of internal auditing is influenced by: the independence of internal audit, the objectivity of internal auditors, the management support for internal audit, the use of internal audit function as a management training ground, and the sector of the organisation. From these descriptions, the following hypotheses are formulated:

*H1: There will be a statistically significant positive effect of internal auditors' independence on IAF effectiveness in MMDAs in the Central region of Ghana.*

*H3: Internal audit function effectiveness will be influenced positively by management support for internal auditors in MMDAs in the Central Region of Ghana*

*H4: Internal audit function effectiveness will be affected positively by organisational culture in MMDAs in the Central Region of Ghana*

## CHAPTER THREE

### RESEARCH METHODS

#### Introduction

The purpose of this study is to examine the effectiveness of internal audit functions within Metropolitan, Municipal and District Assemblies (MMDAs). Therefore, this chapter discusses how the study was conducted. It defines the choice of the study approach and the design that was used in undertaking the study. It covers issues such as research approach, research design, population, sample and sampling procedure, data collection procedure, instrumentation and data analysis. Finally, the chapter describes the ethical consideration issues of the study for addressing anonymity, confidentiality and other ethical issues in any systematic research inquiry.

#### Research Approach

This study adopted a quantitative research approach. This approach was employed because it is the most logical method to use when examining interrelationships among variables, where objective theories are tested (Quick & Hall, 2015). These variables can be measured typically using instruments of predetermined, close-ended questions to analyse numbered data using statistical procedures (Creswell & Zhang, 2009). Since this study is about the relationship between variables, it is important to adopt this approach. This approach will further help to code the data from participants for analysis.

#### Research Design

Research design is the specification of the procedure to be developed to guide the researcher in the collection, analysis and interpretation of data.



Also, it is a logical model of proof employed to facilitate the drawing of inference with regards to a causal relationship between variables under study by the researcher. Rahi (2017) defines a research design as the blueprint or detailed plan of how a research study is to be conducted; it guides with the logical arrangements for the collection and analysis of data so that conclusions may be drawn. According to Miller and Brewer (2003), the design of research is employed to structure the study and indicate how all of the major parts of the research corroborate to address the research questions.

There are numerous categories of research design that can be adopted depending on the nature of the research. For the purpose of this research, a correlational research design was adopted. This study examined the relationship and the extent to which IAF effectiveness in MMDAs in the Central region of Ghana is influenced by factors such as internal auditors' independence, competence and objectivity of internal auditors, and management support for internal auditors organisational culture. The correlational design was employed for the study because it is concerned with establishing relationships between two or more variables in the same population or between the same variables in two populations (Leedy & Ormrod 2010). In the field of auditing and, indeed, in other disciplines (Fitzgerald *et al.*, 2004), the study of the relationships between various variables is an important part of healthy research. Understanding the associations/relationships that exist between “human phenomena is a constant incentive for scientific research in all disciplines of the social sciences, and this impulse surpasses even the most polarized paradigmatic differences between different research methods” (Fitzgerald *et al.* 2004:143).



Also, a correlation design measures two or more characteristics of the same person, and then calculates the correlation between the characteristics.

Additionally, the focus of the design is not to look out for cause-and-effect relationships only, but also describes the existing variables in a given situation and, sometimes, the relationship that exists among those variables (Lebow, Chambers, Christensen & Johnson, 2012). Furthermore, this design was employed to address the research problem as it focused on finding facts to describe the social phenomenon and assess the cause-effect relationship of the research variables (Kerlinger & Pedhazur, 1973; Saunders, Lewis, & Thornhill, 2019). Finally, the design was adopted because it is cost-effective, easy and quick, time and money-saving (Kusi-Mensah & Opoku, 2007). Thus, a comprehensive questionnaire was designed to collect data from respondents.”

### **Population**

According to Kobina-Enos, Yensu and Obeng (2020), a population is a group of elements or cases, whether individual, objects or events, that conforms to specific criteria and to which we intend to generalize the result of research. The population of research is said to be all the members who meet the particular criteria specified for research. By these definitions, it can be said that a population is the set of people or objects a researcher would want to generalize his or her findings to. For the purpose of this study, the population consists of internal audit staff working in various Metropolitan, Municipal and District Assemblies (MMDAs) in the Central Region of Ghana. The selection of the internal audit staff was based on the fact that they are directly involved in all the internal auditing activities the institution

embarks on, and hence their experience level can be said to be high when it comes to IAF effectiveness issues within the Municipal and District Assemblies.

To ensure inclusivity and diversity, both male and female workers in the region's various Metropolitan, Municipal and District Assemblies (MMDAs) were targeted. This is to ensure a homogeneous representation of respondents. As per the Institute of Local Government Studies, Ghana (2016), the Central Region has two Sub-Metropolitan Assemblies (Cape Coast South and Cape Coast North), about seven Municipal Assemblies (e.g., Agona West, Asin North, Awutu Senya East, Effutu, Komenda-Edina-Egyafo-Abirem, Upper Denkira East) and twenty-one District assemblies (e.g., Abura-AsebuKwamankese, Agona East, Asikuma-Odoben Brakwa, Asin South, Awutu Senya, EkumfiGomoa East and Gomoa West, TwifoHeman Lower Denkyira, Mfantsiman, Twifo Ati Morkwa, Upper Denkira West) (Ahwoi, 2010). It was estimated that the internal auditors within the municipality are approximately one hundred and eighty (180) staff strengths (Antwi-Boasiako, 2010).

### **Sampling Procedures**

Sampling is the process of choosing from the total universe a sizeable unit out of the lot that bears the same number of traits as the rest chosen (Saunders, Lewis, & Thornhill, 2019). It is believed that the units have the same unit trait as such, the outcome of the entire population. This study adopted a stratified random sampling technique. Stratified random sampling is a type of probability sampling that allows researchers to improve precision (reduce error) relative to simple random sampling (Sharma, 2017). With this

technique, the population is divided into non-overlapping groups, or strata, along a relevant dimension, depending on the researcher's target population. The researcher then collects a random sample of population members within each stratum. This technique was selected because it gives individuals within the population an equal chance of being selected (Saunders *et al.*, 2019) and aids in accurate results and valid analysis. In selecting the sample size based on the stratified random sampling techniques, the following steps were followed to group the internal audit staff into the various strata (metropolitan, municipal and district assemblies).

The total number of the sample size required for the study was determined following the Krejcie and Morgan (1970) formula to determine the sample size for this particular study. This formula is represented as:  $s = \frac{X^2 NP (1-P)}{d^2 (N-1) + X^2 P (1-P)}$ . Where:  $s$  = required sample size;  $X^2$  = the table value or chi-square for 1 degree of freedom at the desired confidence level (3.841 = 1.96\*1.96);  $N$  = the population size;  $P$  = the population proportion (assumed to be 0.50 since this would provide the maximum sample size);  $d^2$  = the degree of accuracy expressed as a proportion (0.50). Therefore, basing on the internal audit staff population of 180; the sample size of the study was determined as;  $123 = \frac{3.841^2 * 180 * 0.50 (1-0.50)}{0.50^2 (180-1) + 3.841^2 * 0.50 (1-0.50)}$ . Adopting Krejcie and Morgan (1970) formula, a sample size of one hundred and twenty-three (123) internal audit staff were chosen for this study. The sample size (123) determined above were allocated to the three categories; metropolitan, municipal and district (strata). The table below contains the target population and the sample size chosen from metropolitan, municipal and district assemblies.

**Table 1: Target Population and Sample Size**

MMDAs	Population	Sample Size
Metropolitan Assemblies	12	8
Municipal assemblies	42	29
District Assemblies	126	86
Total	180	123

Source: Field survey (2020)

In all, a total number of one hundred and twenty-three (123) respondents were chosen for this study. The justification for this sample size is for the researcher to get more reliable and accurate data to achieve the purpose of the study (Krejcie & Morgan, 1970).

#### **Data Collection Procedure**

The researcher prepared and personally circulated a total of one hundred and fifty (150) questionnaires to the four MMDAs due to financial and time constraints. The one hundred and fifty (150) questionnaire were distributed to the four MMDA to make room for missing and incomplete questionnaires submitted by the respondents. Permission was taken from the institution, specifically from the internal audit department of the various MMDAs, and respondents were met by the researcher personally to administer the questionnaires to get first-hand (primary) data. Respondents were given one week to complete the questionnaires due to time constraints.



## Measurement Instrument

### Internal Audit Function Effectiveness

The effectiveness of the internal audit function was assessed using a fifteen-item scale developed by Moeller (2005). The scale measures eight dimensions of internal audit function effectiveness, namely; innovation and risk-taking (five items), communication and approval (two items), management of resources (one item), policies and procedures of internal audit (two items), coordination (one item), internal audit report to the CEO (two items), development of program and quality control (one item) and following the public complaints (one item).

Sample items include “At my work, I consider activities that have the greatest risk” (innovation and risk-taking), “At my work, I communicate about the audit plan” (communication and approval), “At my work, I manage and utilize resource economically, efficiently and effectively” (management of resources), “At my work, I review policies and procedures continue to be effective” (policies and procedures of internal audit), “At my work, I coordinate the monitoring of plans and results, both with other internal and external auditors” (coordination), “I submit report periodically to the leadership” (internal audit report to the CEO), “I develop programs and control audit quality which cover all aspects of audit activities” (development of program and quality control) and “I handle complaints with clear mechanisms and procedures, transparent and accountable based on the rule” (following the public complaints).

This scale has been widely used in some prominent research studies due to its reliability and internal accuracy (Gamayuni, 2018; Dellai & Omri,

2016; Rahmatika, 2014; Soh & Martinov-Bennie, 2015). The scale was deemed relevant for the research hypotheses, and hence, the researcher adapted and modified it to meet the specific context of this research study. A 5-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree was used to obtain responses. The Likert-scale method was used because of its accuracy and reliability (Ling, Piew & Chai, 2010)

### **Auditor's Independence**

The independence of the auditor was measured using five-item scale developed by Institute of Internal Auditors (IIA) Standards (2008). The items were selected from the MMDAs policies and procedures, as this taps into the heart of the issue in the MMDAs. Sample items include “The independence can only be achieved by allowing the internal audit department to perform its responsibilities free from interference”, “I avoid conflict of interests”, “I have direct contact with the board and senior management”, “I have unrestricted access to records, employees and departments”, “The appointment and removal of the heads of internal audit not being under the direct control of executive management”.

The scale was deemed relevant for the research hypotheses, and hence, the researcher adapted and modified it to meet the specific context of this research study. A 5-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree was used to obtain responses. The Likert-scale method was used because of its accuracy and reliability (Ling, Piew, & Chai, 2010)

### **Auditor's competence**

The competence of the auditor was assessed with a fifteen-item scale developed by Pickett (2010). The scale measures four dimensions of the auditor's competence, namely, knowledge (three items), skills (two items), expertise (seven items) and behaviour (three items). Sample items include "I have knowledge about internal audit ethics standards" (knowledge), "I possess the skills to communicate orally and in writing" (skills), "I have the expertise in auditing standards and practices" (expertise) and "I uphold professional responsibility as an auditor" (behaviour).

This scale has been widely used in some prominent research studies due to its reliability and internal accuracy (Cheng *et al.*, 2002; Joseph & Engle, 2005; Gamayuni, 2018). The scale was deemed relevant for the research hypotheses, and hence, the researcher adapted and modified it to meet the specific context of this research study. A 5-point Likert scale where 1 = Excellent, 2 = Very good, 3 = Good, 4 = Fair, and 5 = Poor was used to obtain responses. The Likert-scale method was used because of its accuracy and reliability (Ling, Piew, & Chai, 2010).

### **Auditor's Objectivity**

The objectivity of the auditor was assessed with an eight-item scale developed by Brandon (2010). The scale measures three dimensions of the auditor's objectivity, namely, unbiased attitude (four items), impartial attitude (one item), and avoiding conflict of interest (three items). Sample items include "I disclose all material facts" (unbiased attitude), "I do not use the information for personal use" (impartial attitude) and "I do not have a social relationship or kinship with the auditee" (avoiding conflict of interest).

This scale has been widely used in some prominent research studies due to its reliability and internal accuracy (Pickett 2010; Gamayuni, 2018). The scale was deemed relevant for the research hypotheses and hence, the researcher adapted and modified it to meet the specific context of this research study. A 5-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree was used to obtain responses. The Likert-scale method was used because of its accuracy and reliability (Ling, Piew, & Chai, 2010).

### **Management support**

The support of management was assessed with a five-item scale developed by Mathis and Jackson (2003). The scale measures two dimensions of management's support: resources provided by management (three items) and management's commitment to use the audit recommendations and strengthen the internal audit (two items). Sample items include "Management provides equipment and technology needed for auditing" (resources provided by management) and "Management is committed to strengthening the internal audit" (management's commitment to use the audit recommendations and strengthen the internal audit). This scale has been widely used in some prominent research studies due to its reliability and internal accuracy (Cohen & Sayag, 2010; Gamayuni, 2018; Mihret & Yismaw, 2007). A 5-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree was used to obtain responses. The Likert-scale method was used because of its accuracy and reliability (Ling, Piew, & Chai, 2010).



### **Organisational culture**

Organisational culture was assessed using a sixteen-item scale developed by Robbins and Coulter (2013). The scale measures seven dimensions of organisational culture, namely; innovation and risk-taking (three items), aggressiveness (2 items), stability (three items), attention to detail (two items), outcome orientation (three items), and people-oriented (two items) and team-oriented (one item). Sample items include “My organisation is always seeking opportunity” (innovation and risk-taking), “My organisation places low emphasis on social responsibility” (aggressiveness), “My organisation provides the needed security for me” (stability), “The decisions taken my organisation are precise” (attention to detail), “My organisation is action-oriented” (outcome orientation), “ The policies of my organisation are fair” (people-oriented) and “My organisation embraces collaboration” (team-oriented).

This scale has been widely used in some prominent research studies due to its reliability and internal accuracy (Cohen & Sayag, 2010; Gamayuni, 2018; Robbins & Judge, 2013). A 5-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree was used to obtain responses. The Likert-scale method was used because of its accuracy and reliability (Ling, Piew, & Chai, 2010).

### **Data Collection Instrument**

One method of data collection is the use of the questionnaire. This is to ask individuals a series of questions to obtain statistically useful information about a particular topic at a given time. The questionnaire data collection method is the most commonly adopted. It is mostly observed as an

effective tool for data collection, especially when studying the perception and opinion of individuals in the field of study. The questionnaire that is designed effectively is indispensable to get a good and reliable result in every social research. Depending on the research objective and the research problem, a questionnaire refers to the support that includes communication between the person collecting the information known as a researcher and the person answering the known question of the respondent (Saunders *et al.*, 2019).

The questionnaire for this study was administered by the researcher to respondents who have knowledge in the subject area within the targeted population. A sixty-nine (69) item questionnaire was designed and administered to the respondents to assess the factors affecting the effectiveness of the internal audit function of the MMDAs. The questionnaire was structured into three (3) sections; Section A examined the respondents' personal background information concerning gender, qualifications, professional certificate, working experience and a number of internal auditors in the MMDAs (consist of five items), Section B focused on forty-nine (49) items that look at specifically fifteen (15) items for internal auditors' competence, eight (8) items for internal auditors' objectivity, five (5) items for management support and sixteen (16) items for organisational culture, and five (5) items for auditor independence and finally Section C was on the items for measuring the effectiveness of the internal audit function (consist of fifteen items).

### **Ethical Issues**

In conducting research, the research participants need to be protected, and researchers have to be aware of this and how to develop trust

with them whilst promoting the integrity of the research (Creswell & Zhang, 2009). In addressing the ethical concerns in this study, informed consent was elicited from the respondents prior to administering the instruments (Borrego, Douglas & Amelink, 2009). After this condition was met, the researcher obtained clearance from the human resource manager of the MMDAs and approval to conduct the survey with all participants' approval before they completed the questionnaires. The respondents were informed of their rights to willingly accept or decline to participate and to withdraw participation at any time without penalty. Anonymity and privacy were assured and adhered to. No form of identification was required of the respondents and their responses were not disclosed to any third party. Generally, anonymity does not constitute a serious constraint on research, as most researchers are interested in group data rather than individual results. The thought of anonymity can be easily overcome by ignoring the names of the participants or classifying the respondents by code instead of by name (Creswell & Zhang, 2009). Finally, all other sources of relevant literature and documents used were fully acknowledged to avoid plagiarism.

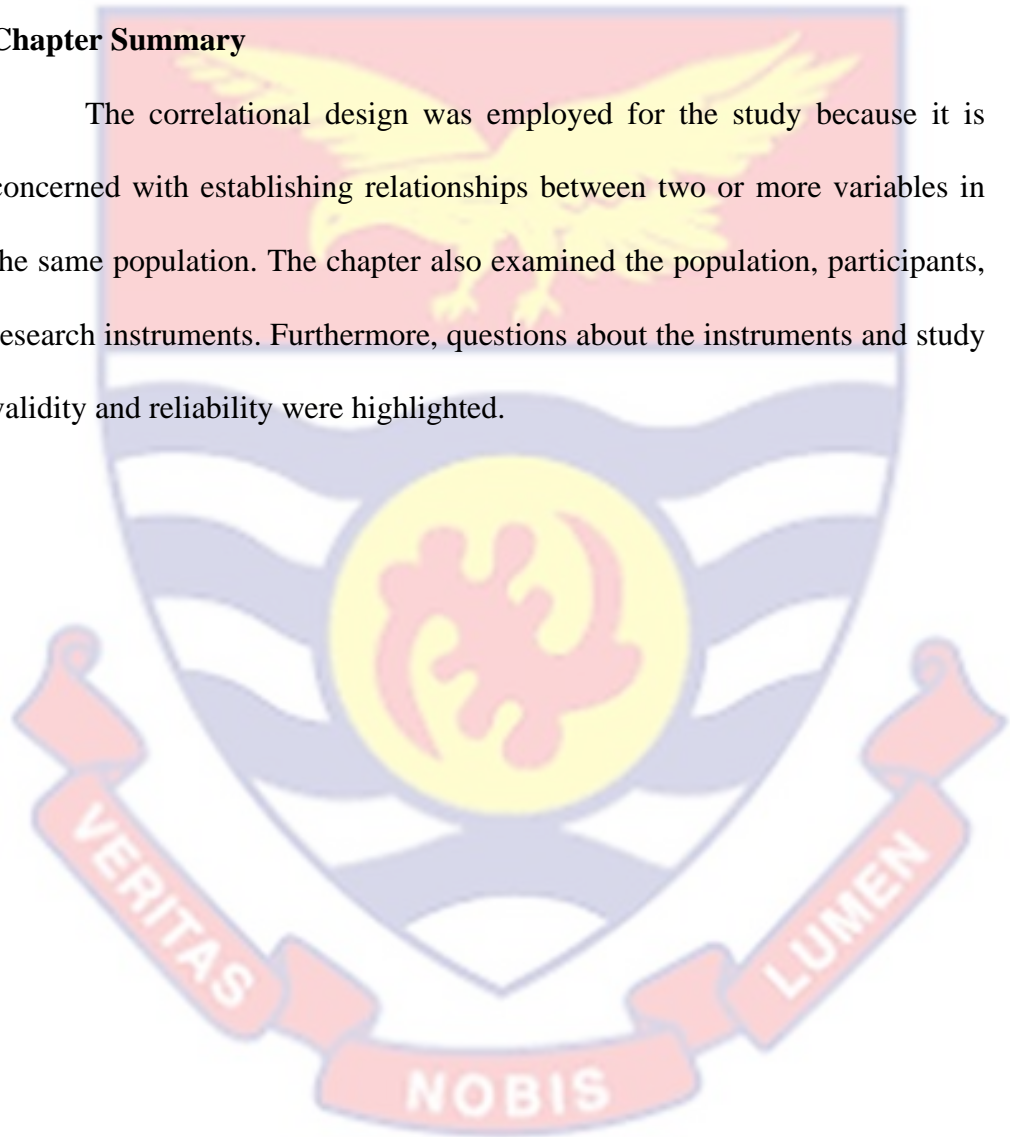
### **Data Processing and Analysis**

The data obtained from the respondents were analysed using a statistical software programme, Statistical Package for the Social Sciences (SPSS). Descriptive statistics (frequency count, percentages, mean and standard deviation) was used to evaluate the respondents' background information. The study further examined the effect of the identified factors on the construct (the effectiveness of the internal audit function of the various MMDAs using Pearson product-moment correlation and Hierarchical

regression analysis to examine the relationship and extent to which each factor affects the various construct of IAF effectiveness (Cohen & Sayag, 2010; Saunders *et al.*, 2019). The results were presented in tables with interpretations. Finally, findings were discussed in relation to appropriate and related literature reviewed.

### **Chapter Summary**

The correlational design was employed for the study because it is concerned with establishing relationships between two or more variables in the same population. The chapter also examined the population, participants, research instruments. Furthermore, questions about the instruments and study validity and reliability were highlighted.





## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### Introduction

This section presents the results and discussions of data gathered from the participants sampled for the study. The section also contains the descriptive (arithmetic mean and standard deviation, skewness, and kurtosis) and inferential statistics of the variables, correlation and multiple regression results. The alpha level of 0.05 was used to test the significance for the correlation and multiple regressions of all the values. A total of one hundred and fifty (150) questionnaires were administered to the employees of Metropolitan, Municipal and District Assemblies (MMDAs). Upon a critical assessment of the retrieved questionnaire, twenty-seven (27) had to be rejected due to shortfalls of information needed leaving the researcher with total questionnaires of one hundred and twenty-three (123) for the study as a result of missing and incomplete questionnaires. A sample like this is good for data analysis since more than 80% of the administered questionnaires were retrieved (Opoku & Adu, 2016). The preceding sub-sections of the study concentrate on the interpretation and discussion of results based on statistical evidence and literature based on the study objectives.

#### Demographic Characteristics of Study Participants

This section of the study presents the preliminary analysis of the profile of the respondents sampled for the survey. The biographic data reflects the profile of the respondents in terms of their age, gender, marital status, academic qualification, and working experience.

**Table 2: Summary of Frequencies and Percentages of Demographics**

Variables		
Age	Frequency	Percent
Below 30 years	25	20.3
30-39 years	50	40.7
40-49 years	37	30.1
50-59 years	11	8.9
Above 60 years	-	-
<b>Gender</b>		
Male	82	66.7
Female	41	33.3
<b>Marital Status</b>		
Single	32	26.0
Married	88	71.5
Divorced	3	2.4
<b>Academic Qualification</b>		
HND	8	6.5
Bachelor's Degree	51	41.5
Master's Degree	64	52.0
<b>Working Experience</b>		
1-5 years	40	32.5
6-10 years	20	16.3
11-15 years	30	24.4
16-20 years	13	10.6
More than 20 years	20	16.3

Source: Field Survey (2021)

From Table 2, it can be seen that out of the total valid questionnaires used for the analysis, the most frequent age range was 30-39, with a frequency of 50 representing 40.7% of the total sample under study. This

shows that most of the respondents who participated in this study were between 30 to 39 years old. The next highest frequent age range was 40-49 with a frequency score of 37 representing 30.1%, followed by those aged below 30 years with a frequency of 25 representing 20.3% and lastly, the age range of 50-59 years with a frequency of 11 representing 8.9% of the entire population.

With regards to the gender of the respondents, 82 out of the total respondents were males representing 66.7%, whereas 41, representing 33.3%, were female, which is an indication that more males participated in the study than females. Concerning marital status, most of the respondents indicated that they are married with a frequency of 88, representing 71.5%. Followed by the single folks with a frequency of 32 representing 26.0% and subsequently respondents who are divorced, with a frequency of 3 representing 2.4% of the study population respectively.

On the issue of academic qualification of the respondents, the majority of the respondents, i.e. 64 out of the total respondents under study representing 52.0%, indicated that they are second (Master's) degree holders. However, the minority of the respondents, with the frequency of 8, representing 6.5%, indicated that they are Higher National Diploma (HND) holders.

Finally, with the issue of employees' working experience, the majority of the respondents with the frequency of 40, representing 32.5%, indicated that their work experience falls within the range of 1-5 years. Followed by respondents with experience that fall within 11-15 with a frequency of 30, each representing 24.4% respectively. Subsequently, the

ranges 6-10 and more than 20 years followed with a frequency of 20 each representing 16.3% respectively, and lastly, the minority of the respondents with a frequency of 13 representing 10.6% of the entire respondents under study indicated that their working experience falls within the range 16-20 years.

**Summary Description of Demographic Characteristics and Study**

**Variables**

**Table 3: Descriptive Statistics of Demographic and Study Variables**

	Mean	Std. Deviation	Skewness	Kurtosis
Age	34.28	.890	.205	-.687
Marital	1.76	.480	-.561	-.137
Academic Qualification	3.46	.617	-.677	-.485
Working Experience	2.62	1.446	.365	-1.166
IAF Effectiveness	4.01	.57175	-.515	-.641
Internal Auditors' Independence	3.52	.62671	.493	-.833
Internal Auditors' Competence	3.65	.80394	-.922	1.013
Management Support	3.13	.82262	-.037	-1.172
Internal Auditors' Objectivity	3.33	1.08798	-.018	-1.355
Organisational Culture	3.65	.52855	.045	-.611
Valid N (listwise)				

Source: Field Survey (2021)

The results from Table 3 show that the mean age was 34.28, which indicates that the average age of an employee in this study was 34 years old. Again, the mean mark for gender is 1.33, which indicates that, more male internal audit staff of Metropolitan, Municipal and District Assemblies



(MMDAs) took part in this study. Likewise, the mean mark of 1.76 indicates that, on average, respondents who took part in the study are married. Also, the results show that most of the respondents in the study were second-degree holders. Moreover, the mean mark of 2.62 indicates that, on average, a respondent who took part in the study has a working experience of at least 5 years.

Furthermore, the mean scores of 4.01, 3.65, 3.52 and 3.65 for IAF effectiveness, internal auditors' competence, internal auditors' independence and organisational culture respectively presupposes that on average, respondents understudy agreed to the fact that there is some level of auditor's competence, auditor's independence and effectiveness in the internal auditors' function as well as some positive organisational culture at the various MMDAs.

However, the mean mark of 3.33 for internal auditors' objectivity suggests that, on average, respondents somewhat agreed that there is a high level of objectivity in the performance of auditors at their workplace. Likewise, the mean mark of 3.13 for management support indicates that, average, respondents were neutral about the fact that there is a high level of management support in the execution of their duties and responsibilities at their workplace.

**Reliability Analysis of Study Variables****Table 4: Reliability Statistics Results**

Variables	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
IAF Effectiveness	.908	.891	15
Internal Auditors' Independence	.725	.734	7
Internal Auditors' Competence	.948	.856	15
Management Support	.852	.796	5
Internal Auditors' Objectivity	.953	.833	8
Organisational Culture	.808	.812	7

Source: Field Survey (2021)

As presented in Table 4, the Cronbach's alpha coefficient results indicate that all the scales for measuring the variables in the study exceeded the conventional acceptable 0.7 (Pavot, Diener & Sandvik, 1991); thus Cronbach's Alpha coefficients of 0.953, 0.948, and 0.908 as in the cases of internal auditors' objectivity, internal auditors' competence and IAF effectiveness demonstrate that the items used in measuring the respective variables were highly reliable. Similarly, the Cronbach's Alpha results for management support, organisational culture and internal auditors' independence were 0.852, 0.808 and 0.725, respectively, indicating that the items used in measuring the variables in question are reliable and dependable

in making analysis. In all, this indicates that the statements used for measuring all the variables constitute a complete structure in describing the variables under study.

### Correlational Analysis among Study Variables

Pearson’s product-moment correlation analysis was used to establish the relationships between the study variables. Therefore, forms the basis to further test for the hypotheses for the study as stipulated above in chapter one. The results revealed positive relationships among the variables under study, as shown in Pearson’s product-moment correlation matrix in Table 5.

**Table 5: Correlational Analysis among study constructs**

	1	2	3	4	5
1 IAF Effectiveness	-				
2 Internal Auditors’ Independence	.570**	-			
3 Internal Auditors’ Competence	.749**	.161*	-		
4 Management Support	.630**	.242	.140	-	
5 Internal Auditors’ Objectivity	.748**	.021	.204*	.102	-
6 Organisational Culture	.441**	.207*	.133	.066	.040

NB: \*\*, \* Significant at 1% and 5%, respectively  
Source: Field Survey (2021),

From the results as per table 5, it can be seen that there is a significant positive relationship between internal auditors’ independence and IAF effectiveness ( $r = .570$ ,  $p < 0.01$ ). In other words, internal auditors’ independence is positively and significantly related to IAF effectiveness. Thus, the more independent an auditor is in executing his or her duties and responsibilities, the more IAF effectiveness increases. This supports evidence by Alizadeh (2011), which shows that organisational independence of the

IAF is one of the five important factors in the effectiveness of AI in Iranian companies. In addition, Cohen and Sayag (2010), Alzeban and Gwilliam (2014) found that organisational independence was positively related to the quality of the audit and the evaluations of the people audited, which were the two dimensions of AI effectiveness in the Israeli context.

Similarly, the study results pose a significant positive inclination or relationship between internal auditors' competence and IAF effectiveness ( $r = .749, p < 0.01$ ). In other words, internal auditors' competence affects IAF effectiveness significantly and positively. Thus, the more competent an auditor is, the more effective the internal audit function becomes. This result corroborates with evidence in other jurisdictions that suggest that internal audit competence is a critical factor for the effectiveness of IA (Van Gansberghe 2005; AL-Matarneh 2011). This also confirms the assertion that the appropriate level of competence of internal audit staff in terms of training, experience, knowledge and professional qualifications has a positive link with the effectiveness of IAF (Al-Twajjry *et al.*, 2003)

Also, the results indicate a significant positive relationship between management support and IAF effectiveness ( $r = .630, p < 0.01$ ). In other words, management support significantly affects IAF effectiveness positively. Thus, the more management support increases, the more IAF effectiveness increases. Likewise, there is a significant positive relationship between internal auditors' objectivity and IAF effectiveness ( $r = .748, p < 0.01$ ). In other words, internal auditors' objectivity affects IAF effectiveness positively and significantly. Thus, the more objective an auditor is in executing his or her duties and responsibilities, the more IAF effectiveness



increases. This result is supported by Cohen and Sayag (2010), who stated that audit findings and recommendations would not work much without the support and commitment from management to implement them. However, this evidence contradicts Gamayuni (2018), who found that there is no significant influence of management support on the internal audit function effectiveness in Indonesia.

The case is the same for the relationship between organisational culture and IAF effectiveness. Thus, the results showed a significant positive correlation between organisational culture and IAF effectiveness (i.e.  $r = .441$ ,  $p < 0.01$ ). This presupposes that the more an organisational culture is enhanced to reflect internal audit activities, the more IAF effectiveness increases. This result find support with “Gamayuni (2018), whose study reveals that organisational culture significantly influences the effectiveness of the internal audit function. Based on the result of this study, organisational culture (aggressiveness, results orientation and results orientation) influenced the effectiveness of the internal auditor function.

### **Regression Analysis**

The study employed the Ordinary Least Squares (OLS) method to examine the impact of the independent variable (auditors’ independence, auditors’ competence, management support, organisational culture and auditors’ objectivity) on the dependent variable (IAF effectiveness).

**Research Objective One: Effect of Internal Auditors’ Independence on IAF Effectiveness**

The first objective of the study sought to examine the extent to which internal auditors’ independence affects IAF effectiveness in MMDAs in the Central region of Ghana. The study results based on the field data analysis are shown in the tables below.

**Regression Analysis of Internal Auditors’ Independence on IAF Effectiveness**

**Table 6: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.570 <sup>a</sup>	.325	.319	.47180

Source: Field Survey (2021)

From Table 6 above, the coefficient of multiple determinations,  $R^2$  and the adjusted  $R^2$  indicates that the explanatory power of auditors’ independence explained approximately 32.5% of the variance in IAF effectiveness. This implies that other variables outside this model accounts for the other 67.5% of the variance in the independent variable (thus, IAF effectiveness). On the basis thereof, it may be concluded that the independent variable (auditors’ independence) significantly explain 32.5% of the variance in IAF effectiveness.

**Table 7: ANOVA Results of the Regression Model Analysis**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	12.947	1	12.947	58.165	.000 <sup>b</sup>
Residual	26.934	121	.223		
Total	39.882	122			

Source: Field Survey (2021)

Table 7 above presents the regression results from the data analysis. It can be observed that the regression model was statistically significant ( $F=58.165$ ;  $P=.000$ ) for predictions on the basis that it was statistically significant at a 99.9% confidence level. The implication is that the regression model has an overall significance and that the data gathered fits the regression model better in explaining the impact of internal auditors' independence on internal audit effectiveness.

**Table 8: Regression Coefficient**

	Unstandardized Coefficient		Standardized Coefficient	t	Sig
	B	Std. Error	Beta		
(Constant)	2.181	.244		8.947	.000
Auditors' Independence	.520	.068	.570	7.627	.000

Dependent Variable: Internal Audit Function Effectiveness

Source: Field Survey (2021)

The results from Table 8 reveal a significant positive relationship between auditors' independence and IAF effectiveness ( $\beta= .520$ ,  $p< 0.001$ ), indicating support for *H1* of the study. Thus, the independence of auditors is proven to have a significant positive impact on the effectiveness of the

internal audit function of MMDAs in the Central Region of Ghana. In essence, holding all other variables constant internal auditors' independence induces a 52.0 % change in IAF effectiveness. Thus, these results prove that a unit change in the independence of auditors will induce a 52.0% change in the effectiveness of the internal audit function of MMDAs. In other words, when auditors' independence is improved by 1%, the effectiveness of the internal audit function would be improved by 52.0%. According to the study results, the significance level of this outcome was 0.001, which is less than 0.01, indicating that the variance between the two variables in question was significant.

This result of the study is consistent with Alizadeh (2011) postulation that organisational independence of the IAF is one of the five important factors in the effectiveness of AI in Iranian companies. In the word of Cohen and Sayag (2010), organisational independence positively impacted the quality of the audit and the evaluations of the people audited, which were the two dimensions of AI effectiveness in the Israeli context. In furtherance, Gamayuni (2018) asserts that an appropriate level of independence can ensure that the internal auditors adhere to ethical and professional standards and guidelines to report administratively to the executive board and functionally to the executive board. Thus, management and other stakeholders of organisations should ensure that internal auditors have unrestricted access to records, personnel, and departments and avoid conflicts of interest. This implies that auditors' independence is a key element in the effectiveness of IA (Mutchler 2003; Ahmad et al. 2009; Al-Akra et al. 2016; Dellai & Omri, 2016; Grosset *et al.*, 2017; Gamayuni, 2018; Lenz *et al.*, 2018).



For this reason, ISPPIA (standard 1100) requires that internal auditing must be independent in the achievement of its work in order to create added value for the organisation. This is also supported by the coercive isomorphism dimension of the institutional theory (Powell & DiMaggio, 1983). They described coercive isomorphism as the force that allows organisations to gain legitimacy by adapting and conforming to cultural expectations. Prior studies that have examined the effects of coercive isomorphism argue that it can be considered an influential factor in driving change and expressing legitimacy (Prasad, 2020).

On this grounds, the study fails to reject *H1*. Therefore, it can be concluded that there is a statistically significant positive effect of internal auditors' independence on IAF effectiveness in MMDAs in the Central region of Ghana.

**Research Objective Two: Effect of Auditors' Competence on IAF Effectiveness**

The second objective of the study sought to examine the extent to which IAF effectiveness in MMDAs in the Central Region of Ghana are affected by internal auditors' competence. The findings of the study are shown below.

**Regression Analysis of Auditors' Competence and IAF Effectiveness**

**Table 9: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.749 <sup>a</sup>	.560	.557	.38068

Source: Field Survey (2021)

From Table 9 above, the coefficient of multiple determinations,  $R^2$  and the adjusted  $R^2$  indicates that the explanatory power of auditors' competence explained approximately 56.0% of the variations IAF effectiveness. This implies that other variables outside this model accounts for the other 44.0% of the variance in the independent variable (thus, IAF effectiveness). On the basis thereof, it may be concluded that the independent variable (auditors' competence) significantly explain 56.0% of the variance in IAF effectiveness.

**Table 10: ANOVA Results of the Regression Analysis**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	22.346	1	22.346	154.197	.000 <sup>b</sup>
Residual	17.535	121	.145		
Total	39.882	122			

Source: Field Survey (2021)

Table 10 above presents the regression results from the data analysis. It can be observed that the regression model was statistically significant ( $F = 154.197$ ;  $P = .000$ ) for predictions on the basis that it was statistically significant at a 99.9% confidence level. The implication is that the regression model has an overall significance and that the data gathered fits the regression model better.

**Table 11: Regression Coefficient**

	Unstandardized Coefficient		Standardized Coefficient	t	Sig
	B	Std. Error	Beta		
(Constant)	2.068	.160		12.901	.000
Auditors' Competence	.532	.043	.749	12.418	.000

Dependent Variable: Internal Audit Function Effectiveness

Source: Field Survey (2021)

The results from Table 11 reveal a significant positive relationship between auditors' competence and IAF effectiveness ( $\beta = .532$ ,  $p < 0.001$ ), indicating support for *H2* of the study. Thus, holding all other variables constant, internal auditors' competence induces a 53.2% change in IAF effectiveness at the MMDAs in the Central region of Ghana. In quintessence, these results prove that a unit change in internal auditors' competence will cause a 53.2% change in the effectiveness of the internal audit function. In other words, when the competencies of internal auditors increase by 1%, the effectiveness of the internal audit function would be improved by 53.2%. The significance level of this outcome about the study results was 0.000, which is less than the seamless value of 0.001, indicating that the variance between the two variables in question was highly significant. This supports the mimetic isomorphism that occurs when organisations that are uncertain about social expectations model their operations based on surrounding companies that have successful and legitimate characteristics (Powell & DiMaggio, 1983).

The finding is consistent with Lawrence, Laidlaw and Nicholson (2016) assertion that it is, however significant for shareholders and policymakers to understand the essential role of internal auditor competence in financial health and stability of financial institutions and supported by Al-Matarnah (2011), who posit that competence of internal audit is a critical factor for the effectiveness of an IAF. Moreover, Moeller (2009) revealed from his study that an internal auditor should have the competence to perform his duties, which can constitute an effective internal audit function. Thus, an appropriate level of competence of internal audit staff in terms of training, experience, knowledge, and professional qualifications positively impacts the effectiveness of the impact assessment (AlTwaijry *et al.*, 2003).

This result is also consistent with research carried out by Messier and Schneider (1988), Maletta (1993), Cohen and Krishnamoorthy (2002), Desai *et al.* (2006) and Soh and Martinov-Bennie (2015), that the competence of the internal auditors influenced the effectiveness of the internal audit function.” Other studies suggest that the lack of competence of the internal auditor is an obstacle to the effectiveness of IA in a number of African countries such as Ethiopia, Ghana and Kenya (Mihret & Yismaw 2007; Onumah & Yao Krah 2012; Walter & Guandaru 2012). The competence of the internal auditor influences the effectiveness of the internal audit function. This is consistent with Moeller (2009, p. 294) and Arens and Loebbecke (1997, p. 788) that the internal auditor should have the competence to perform his duties, which can constitute an effective internal audit function.

*The foregoing discussions based on the field data analysed and literature review suggest that auditors’ competence impacts on internal audit*



*function effectiveness. Hence, H2 is confirmed. Thus, internal audit function effectiveness will be influenced positively by internal auditors' competence in MMDAs in the Central Region of Ghana.*

**Research Objective Three: Effect of Internal Auditors' Objectivity and IAF Effectiveness**

**Regression Analysis of Auditor's Objectivity and IAF Effectiveness**

**Table 12: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.748 <sup>a</sup>	.559	.556	.38106

Source: Field Survey (2021)

From Table 12 above, the coefficient of multiple determinations, R<sup>2</sup> and adjusted R<sup>2</sup>, indicates that the auditor's objectivity's explanatory power explained approximately 55.9% of the variations IAF effectiveness. This implies that other variables outside this model accounts for the other 44.1% of the variance in the independent variable (thus, IAF effectiveness). On the basis thereof, it may be concluded that the independent variable (auditors' objectivity) significantly explain 55.9% of the variance in IAF effectiveness.

**Table 13: ANOVA Results of the Regression Analysis**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	22.311	1	22.311	153.649	.000 <sup>b</sup>
Residual	17.570	121	.145		
Total	39.882	122			

Source: Field Survey (2021)

Table 13 above presents the regression results from the data analysis. It can be observed that the regression model was statistically significant (F

=153.649; P=.000) for predictions on the basis that it was statistically significant at a 99.9% confidence level. The implication is that the regression model has an overall significance and that the data gathered fits the regression model better.

**Table 14: Regression Coefficient**

	Unstandardised Coefficient		Standardised Coefficient	t	Sig
	B	Std. Error	Beta		
(Constant)	2.702	.111		24.334	.000
Auditors' Objectivity	.393	.032	.748	12.396	.000

Dependent Variable: Internal Audit Function Effectiveness

Source: Field Survey (2021)

The results from Table 14 reveal that there exists a significant positive relationship between organisational culture and IAF effectiveness ( $\beta = .393$ ,  $p < 0.001$ ), hence *H3* of the study was supported. Thus, internal auditors' objectivity is proven to have a significant positive impact on the effectiveness of the internal audit function of MMDAs in the Central region of Ghana. In essence, holding all other variables constant, internal auditors' objectivity induces a 39.3 % change in IAF effectiveness. Thus, these results prove that a unit change in internal auditors' objectivity will induce a 39.3% change in the effectiveness of the internal audit function of MMDAs. In other words, when internal auditors' objectivity is increased by 1%, IAF effectiveness improved by 39.3%. According to the study results, the significance level of this outcome was 0.000, which is less than 0.001, indicating that the variance between the two variables in question was significant.

The third objective of the study sought to assess the extent to which IAF effectiveness in MMDAs in the Central Region of Ghana are affected by internal auditors' objectivity. The results revealed that there exists a significant positive relationship between an internal auditors' objectivity and IAF effectiveness ( $R^2 = .127$ ,  $p < 0.05$ ). These results are consistent with Gamayuni (2018) findings that an unbiased and unbiased attitude reflects the objectivity of the internal auditor and effectively influences the function of the internal auditor, but avoiding conflicts of interest does not reflect the objectivity of the internal auditor and is supported by Dellai and Omri (2016) who posits that an internal auditor should have an unbiased and impartial attitude in his work to achieve an effective internal audit function. Moreover, Desai *et al.* (2006) postulate that there is a significant influence of the objectivity of the internal auditor on the effectiveness of the internal audit function. In furtherance, Sohnd Bennie (2010) posits that internal auditors are effective if they are objective in a business unit being evaluated.

*Hence, this supports hypothesis three: Internal audit function effectiveness will be influenced positively by internal auditors' objectivity in MMDAs in the Central Region of Ghana.*

**Research Objective Four: Effect of Management Support on IAF**

**Effectiveness**

The third objective of the study sought to evaluate how management support for internal auditors affects IAF effectiveness in MMDAs in the Central Region of Ghana. The findings of the study are in the tables below.

**Regression Analysis of Management Support and IAF Effectiveness**

**Table 15: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.630 <sup>a</sup>	.397	.392	.44595

Source: Field Survey (2021)

From Table 15 above, the coefficient of multiple determinations, R<sup>2</sup> and the adjusted R<sup>2</sup> indicates that the explanatory power of management support explained approximately 39.7% of the variations IAF effectiveness. This implies that other variables outside this model accounts for the other 60.3% of the variance in the independent variable (thus, IAF effectiveness). On the basis thereof, it may be concluded that the independent variable (management support) significantly explain 39.7% of the variance in IAF effectiveness.

**Table 16: ANOVA Results of the Regression Analysis**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	15.818	1	15.818	79.541	.000 <sup>b</sup>
Residual	24.063	121	.199		
Total	39.882	122			

Source: Field Survey (2021)



Table 16 above presents the regression results from the data analysis. It can be observed that the regression model was statistically significant ( $F = 79.541$ ;  $P = .000$ ) for predictions on the basis that it was statistically significant at a 99.9% confidence level. The implication is that the regression model has an overall significance and that the data gathered fits the regression model better.

**Table 17: Regression Coefficient**

	Unstandardised Coefficient		Standardised Coefficient	t	Sig
	B	Std. Error	Beta		
(Constant)	2.641	.159		16.633	.000
Management Support	.438	.049	.630	8.919	.000

Dependent Variable: Internal Audit Function Effectiveness  
Source: Field Survey (2021)

The results from Table 17 reveal that there exist a significant positive relationship between management support and IAF effectiveness ( $\beta = .438$ ,  $p < 0.001$ ), hence  $H4$  of the study was accepted. In essence, these results prove that a unit change in management support will induce a significant change of 43.8% in IAF effectiveness. In other words, when management support is increased by 1%, it will root a positive increase of 43.8% in the effectiveness of internal audit function at the MMDAs. The significance level of this outcome about the study results was 0.000, which is less than the seamless value of 0.001, indicating that the variance between the two variables in question was highly significant.

These findings are consistent with Sawyer’s (2003) assertion that management support for the internal audit function has long been considered critical to the success of this function and supported by Cohen and Sayag (2010) assertion that that audit findings and recommendations will not work much without the support and commitment from management to implement them. Nonetheless, the study’s findings are inconsistent with the findings of Gamayuni (2018) that revealed that the resources provided by management and management’s commitment to use the audit recommendations and strengthen the internal audit, as a dimension of management support could not influence internal audit function effectively. In furtherance, Mihret and Yismau (2007) posit that management support effectively affects the internal audit function. Thus, management support affects the competence of the internal auditor before effectively affecting the internal audit function.

**Research Objective Five: Effect of Organisational Culture on IAF Effectiveness**

The fifth objective of the study sought to examine the influence of organisational culture on IAF effectiveness in MMDAs in the Central Region of Ghana. The findings of the study are shown in the table below.

**Regression Analysis of Organisational Culture and IAF Effectiveness**

**Table 18: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.441 <sup>a</sup>	.195	.188	.51522

Source: Field Survey (2021)

From Table 18 above, the coefficient of multiple determinations,  $R^2$  and the adjusted  $R^2$  indicates that the explanatory power of organisational culture explained approximately 19.5% of the variations IAF effectiveness. This implies that other variables outside this model accounts for the other 80.5% of the variance in the independent variable (thus, IAF effectiveness). On the basis thereof, it may be concluded that the independent variable (organisational culture) significantly explain 19.5% of the variance in IAF effectiveness.

**Table 19: ANOVA Results of the Regression Analysis**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	7.763	1	7.763	29.244	.000 <sup>b</sup>
Residual	32.119	121	.265		
Total	39.882	122			

Source: Field Survey (2021)

Table 19 above presents the regression results from the data analysis. It can be observed that the regression model was statistically significant ( $F=29.244$ ;  $P=.000$ ) for predictions on the basis that it was statistically significant at a 99.9% confidence level. The implication is that the regression model has an overall significance and that the data gathered fits the regression model better.

**Table 20: Regression Coefficient**

	Unstandardized Coefficient		Standardized Coefficient	t	Sig
	B	Std. Error	Beta		
(Constant)	2.268	.326		6.960	.000
Organisational Culture	.477	.088	.441	5.408	.000

Source: Field Survey (2021)

The results from Table 19 reveal a significant positive relationship between organisational culture and IAF effectiveness ( $\beta = .477$ ,  $p < 0.001$ ), hence *H5* of the study was accepted. In essence, these results prove that a unit change in organisational culture will induce an insignificant change of 47.7% in IAF effectiveness. In other words, when organisational culture increases by 1%, it will root a positive increase of 47.7% in the effectiveness of internal audit function at the MMDAs. The significance level of this outcome about the study results was 0.000, which is less than the seamless value of 0.001, indicating that the variance between the two variables in question was highly significant. Thus, organisational culture statistically predicts the effectiveness of the internal audit function of MMDAs significantly.

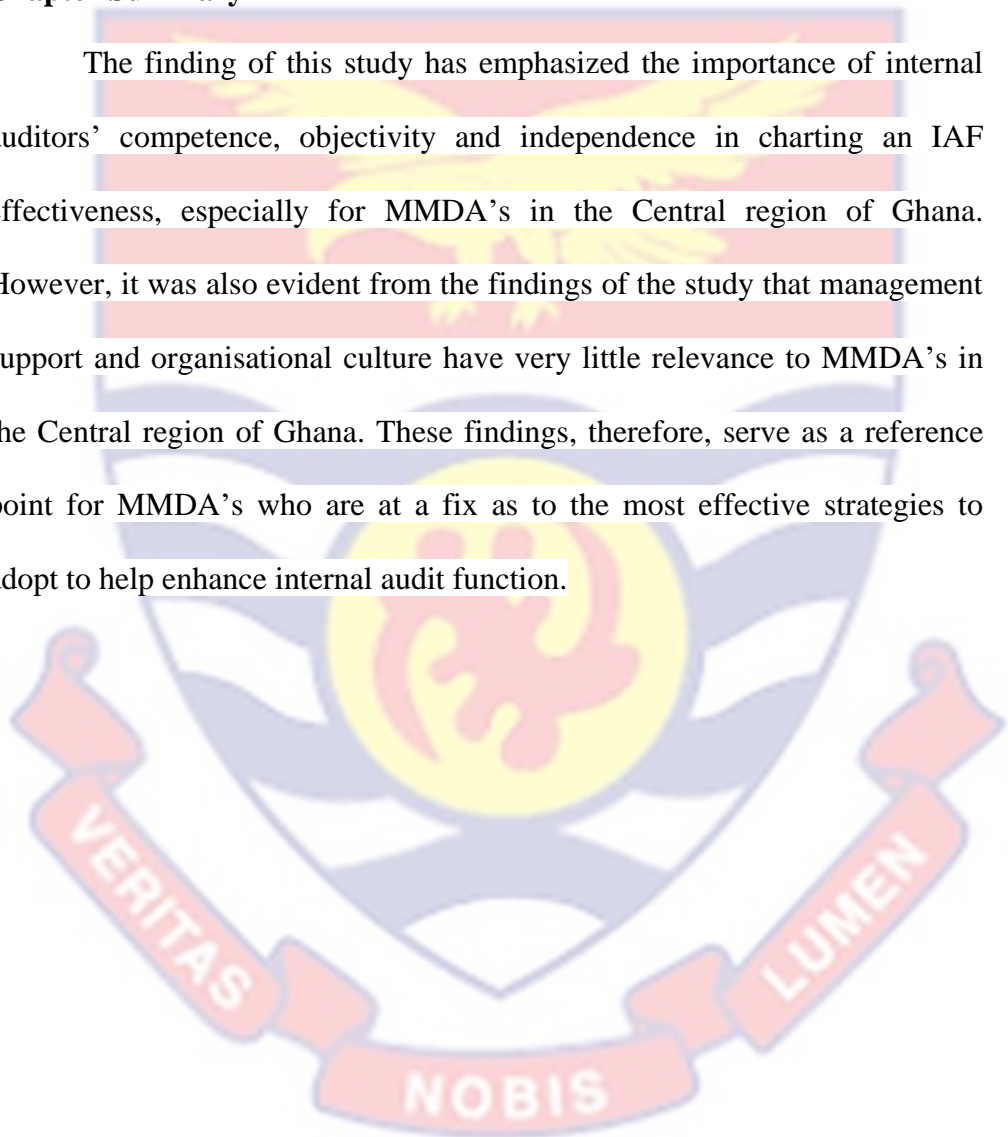
The findings of the study are consistent with the findings of Gamayuni (2018), who posit that organisational culture (aggressiveness, results orientation and results orientation) influences the effectiveness of an internal auditor function and supported by Kinicki and Kreitner (2007) posits that organisational culture is a way to further improve employee quality in order to achieve company or organisation goals. However, these findings are in contrast with Ostroff and Schmitt (1993) assertion that an organisation's



culture, such as innovation and risk-taking, stability, attention to detail, and people orientation, did not reflect the culture of the organisation and, as such does not affect IAF effectiveness. Nonetheless, the adverse findings of the study may be a result of the way of life of the internal auditors.

### Chapter Summary

The finding of this study has emphasized the importance of internal auditors' competence, objectivity and independence in charting an IAF effectiveness, especially for MMDA's in the Central region of Ghana. However, it was also evident from the findings of the study that management support and organisational culture have very little relevance to MMDA's in the Central region of Ghana. These findings, therefore, serve as a reference point for MMDA's who are at a fix as to the most effective strategies to adopt to help enhance internal audit function.



## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### Introduction

This study aimed to assess IAF effectiveness among MMDA's in the Central Region of Ghana. The hypotheses formulated were subjected to statistical and inferential testing using Pearson's Product Moment Correlation and Regression Analysis to show the relationship between the study variables and establish the cause-effect relationships among the IAF effectiveness. The analysis was based on a sample size of one hundred and twenty-three respondents in the MMDA's in the Central region of Ghana using the stratified random sampling technique. The questionnaire was used as the main instrument to collect data, and the data analysis followed thereof with the aid of Statistical Package for Social Sciences (SPSS v.23). The results from the study proved the relevance of the antecedents of an effective IAF. Consequently, the proceeding sub-sections of the study present the summary of findings, conclusions, implications for practice and recommendations."

#### Summary of Key Findings

The study's first objective examined the extent to which internal auditors' independence affects IAF effectiveness in MMDAs in the Central Region of Ghana. The results of this study revealed that there exist a significant positive relationship between internal auditor's independence and IAF effectiveness ( $R^2 = .520$ ,  $p < 0.01$ ) indicating support for the first hypothesis of the study. These results suggest that internal auditors' independence has a moderately significant positive effect on IAF

effectiveness. In furtherance, this finding implies that holding all other variables constant, internal auditors' independence induces a 52.0% change in IAF effectiveness in the MMDA's in the Central Region of Ghana. Thus, the quest by the MMDA's to enhance their IAF effectiveness would be improved by enhancing their internal auditor's independence.

The second objective of the study sought to examine the extent to which IAF effectiveness in MMDAs in the Central Region of Ghana are affected by internal auditors' competence. The findings of the study revealed that there exists a significant positive relationship between internal auditor's competence and IAF effectiveness ( $R^2 = .532$ ,  $p < 0.01$ ) indicating support for the study's second hypothesis. This result suggests that internal auditors' competence has a significant positive effect on IAF effectiveness. In furtherance, this finding implies that holding all other variables constant, internal auditors' competence induces a 53.2% change in IAF effectiveness in the MMDA's in the Central region of Ghana. Thus, the quest by the MMDA's to enhance their IAF effectiveness would be an improved by enhancing their internal auditor's competence.

The third objective of the study is to assess the extent to which IAF effectiveness in MMDAs in the Central Region of Ghana are affected by internal auditors' objectivity. The results revealed that there exists a significant positive relationship between an internal auditors' objectivity and IAF effectiveness ( $R^2 = .393$ ,  $p < 0.05$ ) indicating support for the third hypothesis of the study. This result suggests that internal auditors' competence has a moderately significant positive effect on IAF effectiveness. In furtherance, this finding implies that holding all other variables constant,

internal auditors' objectivity induces a 39.3% change in IAF effectiveness in the MMDA's in the Central region of Ghana. Thus, the quest by the MMDA's to enhance their IAF effectiveness would be improved by considering the objectivity of the internal auditor.

The fourth objective of the study evaluated how management support for internal auditors affects IAF effectiveness in MMDAs in the Central Region of Ghana. The findings of the study revealed that there exists a significant positive relationship between management support and IAF effectiveness ( $R^2=.438$ ,  $p > 0.05$ ) indicating a non-support for hypothesis four of the study. This result suggests that management support has a significant positive effect on IAF effectiveness. In furtherance, this finding implies that holding all other variables constant, management support induces a 43.8% insignificant change in IAF effectiveness in the MMDA's in the Central region of Ghana.

The fifth objective of the study examined the influence of organisational culture on IAF effectiveness in MMDAs in the Central Region of Ghana. The findings of the study revealed that there is an insignificant positive relationship between organisational culture and IAF effectiveness ( $R^2=.477$ ,  $p > 0.001$ ) indicating support for hypothesis four of the study. This result suggests that organisational culture has a significant positive effect on IAF effectiveness. In furtherance, this finding implies that holding all other variables constant, management support induces a 47.7% significant change in IAF effectiveness in the MMDA's in the Central region of Ghana.



## **Conclusion**

The purpose of this study was to assess IAF effectiveness among MMDA's in the Central Region of Ghana using the Institutional theory as the theoretical lens. The results contribute to an emerging area within auditing function effectiveness that highlights the significance of understanding the implementation process in adopting and implementing proactive auditing strategies. The first research question assessed the link between an internal auditor's independence and IAF effectiveness. The second research question assessed the link between an internal auditor's competence and IAF effectiveness. In addition, the third research question assessed the link between internal management support and IAF effectiveness. Moreover, the fourth research question assessed the link between organisational culture and IAF effectiveness, and finally, the fifth research question assessed the link between auditors' objectivity and IAF effectiveness. Overall, the results provide broad support for the theoretical framework and empirical review outlined in the study.

## **Recommendations**

Based on the findings of the study, the study recommends the following for MMDA's that are interested in adopting and implementing strategies in order to enhance IAF effectiveness:

- i. The study recommends that MMDA's increase diversity and dynamics in implementing the strategies that are important in ensuring organisational productivity. This will ensure that management support and organisational culture have a high impact on IAF effectiveness

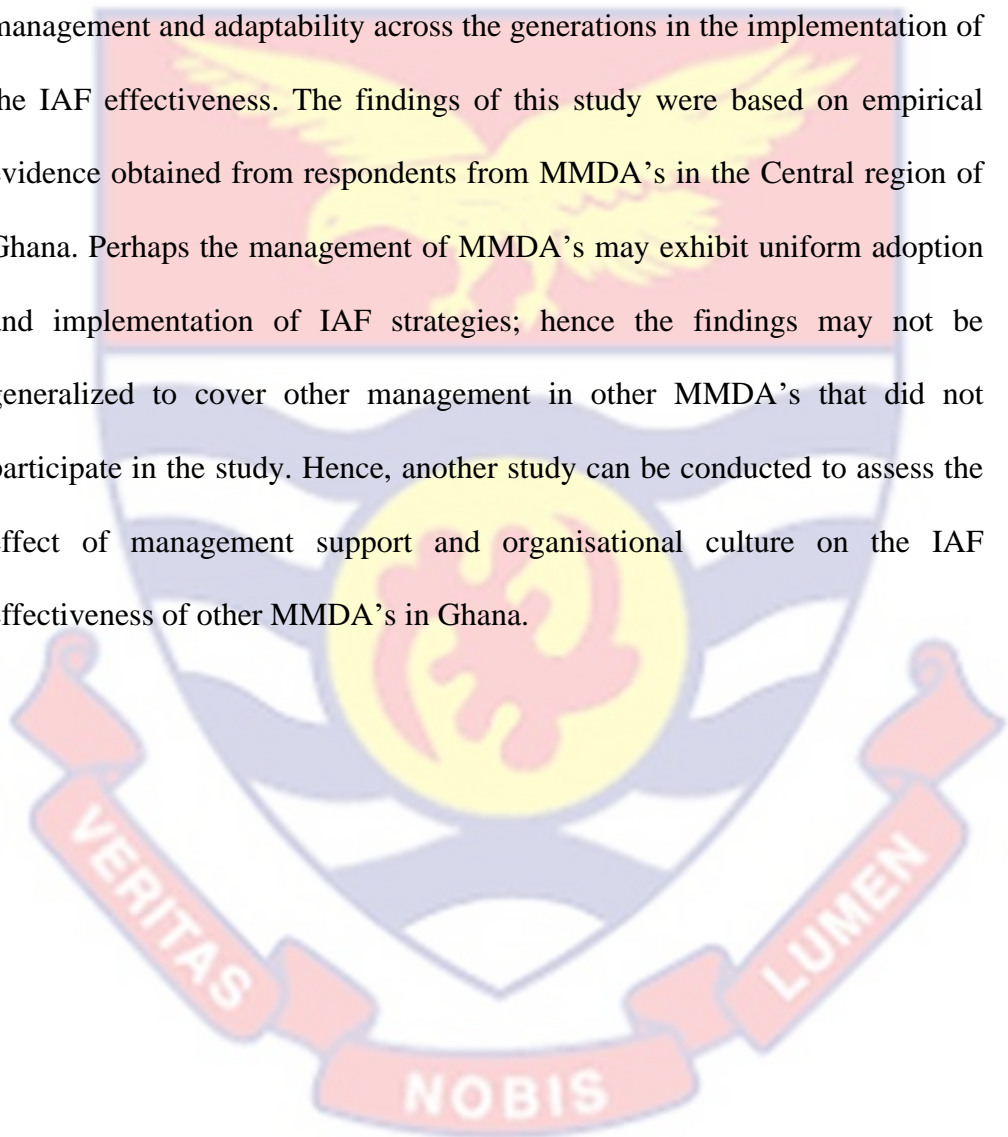
- ii. The study recommends that MMDA's should adopt IAF strategies that conform to International Accounting Standards. Thus, this should include all activities that ensure support from management and a positive change in organisational culture.
- iii. The study further recommends that resources should be provided by management and management's commitment to use the audit recommendations and strengthen the internal audit, as a dimension of management support cannot directly create internal audit function effectively.

### **Suggestions for Further Research**

The findings of the study bring to the limelight the significant and positive association that exists between internal auditor's independence, competence objectivity and IAF effectiveness while a positive and insignificant relationship exists between management support, organisational support and IAF effectiveness. The implication of these findings is that the MMDA's in Ghana faces a number of unique challenges in relation to management support and organisational culture throughout their internal audit function and for that matter, they are under great pressure and scrutiny to address these issues. As a result, MMDA's cannot afford to waste money on strategies that will be ineffective and, to an extent, reflect their support for IAF effectiveness. The results of the study also imply MMDA's must develop a good understanding of what works well in practice and respond to the challenges that are most pressing to them."

Also, this study is perhaps like any other research work; hence it is not exempted from limitations. For example, MMDA's in the twenty-first

century operate in a turbulent and ever-changing business environment characterized by intense competition, unstable labour force, globalization, and quick changes in consumer demands. IAF strategies geared towards achieving outright performance are required in line with this. Therefore, it is imperative to examine how technology may be used to facilitate knowledge management and adaptability across the generations in the implementation of the IAF effectiveness. The findings of this study were based on empirical evidence obtained from respondents from MMDA's in the Central region of Ghana. Perhaps the management of MMDA's may exhibit uniform adoption and implementation of IAF strategies; hence the findings may not be generalized to cover other management in other MMDA's that did not participate in the study. Hence, another study can be conducted to assess the effect of management support and organisational culture on the IAF effectiveness of other MMDA's in Ghana.



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## APPENDIX

### Research Questionnaire

UNIVERSITY OF CAPE COAST

SCHOOL OF BUSINESS

DEPARTMENT OF ACCOUNTING

**Topic: *EFFECTIVENESS OF INTERNAL AUDIT FUNCTION (IAF) WITHIN METROPOLITAN, MUNICIPAL AND DISTRICT ASSEMBLIES (MMDAs) IN THE CENTRAL REGION OF GHANA***

I am Isaac Amonkwandoh, undertaking a study leading to the award of Master of Business (MBA) in Accounting at the University of Cape Coast, Business School in the Central Region of Ghana. This research is being undertaken to assist the researcher to make an objective assessment of the aforementioned research topic. Therefore, I would appreciate any assistance that can be given to me to enable me to collect data/information by providing the necessary responses to these questions outlined below. This is purely an academic exercise, and any information given would be treated as confidential. Thank you in advance for your assistance.

### SECTION A: DEMOGRAPHIC INFORMATION

Please tick (√) in the appropriate box:

1. Age: a. Below 30 years [ ] b. 30-39 years [ ] c. 40-49 years [ ] d. 50-59 years [ ] e. Above 60 years [ ]

2. Gender: a. Male [ ] b. Female [ ]

3. Marital Status: a. Single [ ] b. Married [ ] c. Divorced [ ]

4. Academic Qualification: a. Diploma [ ] b. HND [ ] c. Bachelor's degree [ ] d. Master's Degree [ ]

Working Experience: a. 1-5 years [ ] b. 6-10 years [ ] c. 11-15 years [ ] d. 16-20 years [ ] e. More than 20 years [ ]

**SECTION B: INTERNAL AUDITING FUNCTION EFFECTIVENESS**

Please indicate the extent to which you agree or disagree with these statements by circling 1 (strongly disagree) to 5 (strongly agree)

**Strongly Disagree      Disagree      Neutral      Agree      Strongly Agree**

**1                                  2                                  3                                  4                                  5**

	<i>STATEMENT</i>	<i>RESPONSE</i>				
1	Internal audit is performed in accordance with the IIA Standards (ISPPIA)	1	2	3	4	5
2	Internal audit develops a risk-based annual plan	1	2	3	4	5
3	Internal audit communicates timely the engagement results	1	2	3	4	5
4	Internal audit makes appropriate recommendations for improving the organisational	1	2	3	4	5
5	Internal audit establishes a follow-up process to ensure that corrective actions have been effectively implemented	1	2	3	4	5
6	Internal audit reviews the effectiveness and efficiency of operations and programs	1	2	3	4	5
7	Internal audit reviews the reliability and integrity of financial information	1	2	3	4	5
8	Internal audit evaluates the	1	2	3	4	5

	effectiveness of controls regarding the safeguarding of assets					
9	Internal audit evaluates the compliance with procedures, policies, plans and regulations	1	2	3	4	5
10	Internal audit improves the effectiveness of internal control process	1	2	3	4	5
11	Internal audit assesses that organisational missions are consistent with organisational objective	1	2	3	4	5
12	Internal audit assesses that risk responses are appropriate and align with the organisation's risk appetite	1	2	3	4	5
13	Internal audit evaluates the potential for the occurrence of fraud and how the organisation manages fraud risk	1	2	3	4	5
14	Internal audit improves the effectiveness of risk management process	1	2	3	4	5
15	Internal audit evaluates and improves the effectiveness of governance process	1	2	3	4	5

**SECTION C: Determines the level of independence internal auditors enjoy while carrying out audit assignment.**

Strongly Disagree    Disagree    Neutral    Agree    Strongly Agree

1    2    3    4    5

**Statements on independence of the internal audit**                          1    2    3    4    5

- |   |  |   |   |   |   |   |
|---|--|---|---|---|---|---|
| 1 | Internal audit staff members are sufficiently allowed by management to perform their professional obligations and duties                 | 1 | 2 | 3 | 4 | 5 |
| 2 | The head of the internal audit reports to a level within the organisation that allows the internal audit to fulfill its responsibilities | 1 | 2 | 3 | 4 | 5 |
| 3 | The internal audit has direct contact to the Board of the organisation   | 1 | 2 | 3 | 4 | 5 |
| 4 | Conflict of interest are rarely present in the work of internal auditors   | 1 | 2 | 3 | 4 | 5 |
| 5 | The board approves the appointment and replacement of the head of the internal audit department.   | 1 | 2 | 3 | 4 | 5 |
| 6 | The internal audit department has direct contact with senior management other than the finance director                                  | 1 | 2 | 3 | 4 | 5 |
| 7 | Internal audit staff have free access to all departments and employees in the organisation   | 1 | 2 | 3 | 4 | 5 |



**SECTION D: Assessment of the competency of the internal audit team**

	<b>Statements regarding competency of internal audit team</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	The auditors have high professional knowledge and skills	1	2	3	4	5
2	There is communication between internal auditors and auditees.	1	2	3	4	5
3	Internal auditors are proactive and have Expertise in statistics and sampling techniques	1	2	3	4	5
4	The internal auditor is considered as a professional.	1	2	3	4	5
5	Internal auditors have adequate education and professional qualification.	1	2	3	4	5
6	Internal auditors attend educational seminars for continuous development.	1	2	3	4	5
7	Auditors uphold professional responsibility as an examiner	1	2	3	4	5
8	Auditors communicate , discuss, and have good cooperation with fellow examiner	1	2	3	4	5
9	Auditors should be careful, thorough, and careful in carrying out its duties and powers	1	2	3	4	5
10	Knowledge about internal audit, internal control of government, local financial information systems, government accounting system	1	2	3	4	5
11	Knowledge about internal audit ethics standards	1	2	3	4	5
12	Expertise in auditing standards and auditing practices	1	2	3	4	5
13	Expertise in the auditing of information technology of financial local government	1	2	3	4	5
14	Expertise in environmental governance unit audited	1	2	3	4	5

- |    |   |   |   |   |   |   |
|----|---|---|---|---|---|---|
| 15 | Expertise in the auditing of information technology of financial local government | 1 | 2 | 3 | 4 | 5 |
|----|---|---|---|---|---|---|

**SECTION E: This part assesses the support management provides to the internal audit.**

	<b>Statements regarding management support</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Senior management supports internal audit's personnel.	1	2	3	4	5
2	Senior management follow-up on audit findings and recommendations	1	2	3	4	5
3	Internal audit department is large enough to efficiently carry out its duties without management interference	1	2	3	4	5
4	Equipment and technology resources are provided by management to support audit work	1	2	3	4	5
5	Management is committed to strengthen internal audit	1	2	3	4	5

**SECTION F: This part assesses the internal auditors' objectivity**

	<b>Statements regarding objectivity of internal audit team</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Auditors are honest	1	2	3	4	5
2	Disclose all material facts	1	2	3	4	5
3	Be careful in using and maintaining all information obtained in the audit	1	2	3	4	5
4	Do not accept a bribe	1	2	3	4	5
5	Do not use the information for personal gain	1	2	3	4	5
6	Auditors are neutral and unbiased	1	2	3	4	5
7	Do not have a social relationship / kinship with the auditee	1	2	3	4	5
8	Do not participate in activities that may lead to conflicts of interest	1	2	3	4	5

**SECTION F: This part assesses organisation culture**

Statements regarding organisation culture of internal audit team	1	2	3	4	5
1 The organisation is innovative and considerate in risk taking and opportunity seeking	1	2	3	4	5
2 The organisation is aggressiveness in terms of competition and low emphasis on corporate social responsibility	1	2	3	4	5
3 The organisation is stable, secured and predictable	1	2	3	4	5
4 The organisation pays attention to detail	1	2	3	4	5
5 Outcome orientation is high in the organisation	1	2	3	4	5
6 The organisation is People oriented	1	2	3	4	5
7 The organisation is team oriented and collaborative	1	2	3	4	5

