

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**COLLEGE OF HUMANITIES AND SOCIAL SCIENCES**

**SCHOOL OF BUSINESS**

KNUST

**FACTORS THAT CONTRIBUTE TO THE EFFECTIVENESS OF INTERNAL AUDIT  
IN PUBLIC SECTOR**

**RUKAYA ISSAH**

**(Bachelor of Commerce)**

A THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING AND FINANCE,  
KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, SCHOOL OF  
BUSINESS IN PARTIAL FULFILLMENT FOR THE AWARD OF  
MASTER OF SCIENCE IN ACCOUNTING AND FINANCE

**DECEMBER 2020**

## DECLARATION

I hereby declare that this submission is my own work toward the award of the Master of Science in Accounting and Finance and that to the best of my knowledge, it contains no material previously published by another person, nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

Rukaya Issah  
(PG 7235519)

.....  
Signature

.....  
Date

**Certified by**  
Prof. K. O. Appiah  
(Supervisor)

.....  
Signature

.....  
Date

Dr. Daniel Domeher  
(Head of Department)

.....  
Signature

.....  
Date

## DEDICATION

This study is dedicated to my family, friends and all who in one way or the other helped made this study a success.

# KNUST



## ACKNOWLEDGEMENT

It has become tradition to acknowledge the support one received from colleagues, families and those who one way or the other helped in this study. I am indebted to the Almighty God for his mercy and guidance given me, without which this would not be a reality. He also made this possible in his time for a successful completion of this programme.

Also, my heartfelt appreciation goes to my supervisor Professor K. O Appiah, for his comments and dedication throughout this thesis writing. His supervision of this thesis has impacted my general performance and delivery.

I am equally grateful to colleagues especially Michael Boakye who helped in some way or the other in typing and editing this study.

Finally, I am grateful to my family for the love and support I received, without it, this study would not have been completed.

## ABSTRACT

Internal auditing contributes greatly to the performance of an organisation. Available empirical evidence suggests that, factors accounting to internal audit effectiveness include ownership and perception, firm size, the nature of occupational governance and other regulatory factors. To really benefit from internal auditing, managers must ensure that appropriate mechanisms are used to help monitor and motivate auditors to adequately perform their auditing roles to achieve desirable outcomes. The main objective of the study is to explore the factors that contribute to the effectiveness of internal audit in some selected public agencies in the Kumasi metropolitan areas of Ghana. Specifically, the study focused on; the effect of internal audit quality, internal audit competency, management support and the effect of organisational setting on internal audit effectiveness. The study adopted quantitative research approach and primary data. Structured questionnaire was used to gather primary data from 75 respondents in public agencies in the Kumasi metropolis of Ghana. The study revealed that, internal audit staff competency was a significant factor that contribute to the effectiveness of internal audit. Moreover, the study found that, internal audit quality was not a significant factor that contribute to the effectiveness of the internal audit. Again, the study found that, internal audit organisational setting was a significant factor that contributes to the effectiveness of internal audit. However, management support for internal audit was not a significant factor that contribute to the effectiveness of internal audit. The study concludes that, internal audit staff competency and internal audit organisational setting significantly influence internal audit effectiveness. Therefore, the study recommends that, the public sectors should have competent internal auditors who are proactive, have enough education and also attend educational seminars for continuous training in order to enhance the effectiveness of the sector.



## TABLE OF CONTENTS

DECLARATION .....	ii
DEDICATION .....	iii
ACKNOWLEDGEMENT .....	iv
ABSTRACT.....	v
TABLE OF CONTENTS.....	vi
LIST OF TABLES .....	ix
LIST OF FIGURES .....	x
LIST OF ABBREVIATIONS.....	xi
CHAPTER ONE.....	1
INTRODUCTION .....	1
1.1 Background of the study .....	1
1.2 Problem statement .....	3
1.3 Objectives of the Study .....	4
1.4 Research Questions .....	4
1.5 Significance.....	4
1.6 Scope of the Study.....	5
1.7 Limitation of the Study .....	6
1.8 Organization of the study .....	6
CHAPTER TWO .....	7
LITERATURE REVIEW .....	7
2.1 Introduction .....	7
2.2 Overview of Construct .....	7
2.2.1 Internal Audit .....	7
2.2.2 Internal Audit Effectiveness.....	9
2.3 Theoretical Orientation .....	12
2.3.1 The Contingency Approach to Internal Audit Effectiveness .....	12
2.4 Empirical Review .....	15
2.4.1 Effect of Internal Audit Quality on Internal Audit Effectiveness .....	15
2.4.2 Effect of Internal Audit Staff Competency on Internal Audit Effectiveness .....	18
2.4.3 Effect of Management Support for Internal Auditing on Internal Audit Effectiveness...	23

2.4.4 Effect of Organisational Setting on Internal Audit Effectiveness.....	27
2.5 Conceptual Framework and Hypotheses.....	29
CHAPTER THREE .....	31
RESEARCH METHODOLOGY.....	31
3.1 Introduction.....	31
3.2 Research Design.....	31
3.3 Population of the Study.....	31
3.4 Sample and Sampling Procedure.....	32
3.5 Data Collection Method .....	32
3.5.1 Data Collection Instrument .....	33
3.5.2 Pretesting of Instrument .....	33
3.6 Data Analysis Techniques.....	34
3.7 Validity and Reliability Test .....	35
3.8 Ethical Considerations of the Study .....	36
CHAPTER FOUR.....	37
DATA ANALYSES AND DISCUSSIONS .....	37
4.1 Introduction.....	37
4.2 Demographic Information.....	37
4.3 Internal Audit Staff Competency .....	39
4.4 Management Support for Internal Audit .....	40
4.5 Internal Audit Quality .....	41
4.6 Internal Audit Organizational Setting .....	42
4.7 Internal Audit Effectiveness.....	43
4.8 Measure of Internal Consistency (Reliability Test) .....	45
4.9 Inter- Construct Correlation .....	45
4.10 Regression result on Factors Influencing Internal Audit Effectiveness.....	46
4.11 Discussions of the Results.....	47
4.11.1 Effect of internal audit staff competency on effectiveness of internal audit.....	47
4.11.2 Effect of Management Support on effectiveness of internal audit.....	48
4.11.3 Effect of internal audit Quality on effectiveness of internal audit .....	49
4.11.4 Effect of organisational setting on effectiveness of internal audit .....	50

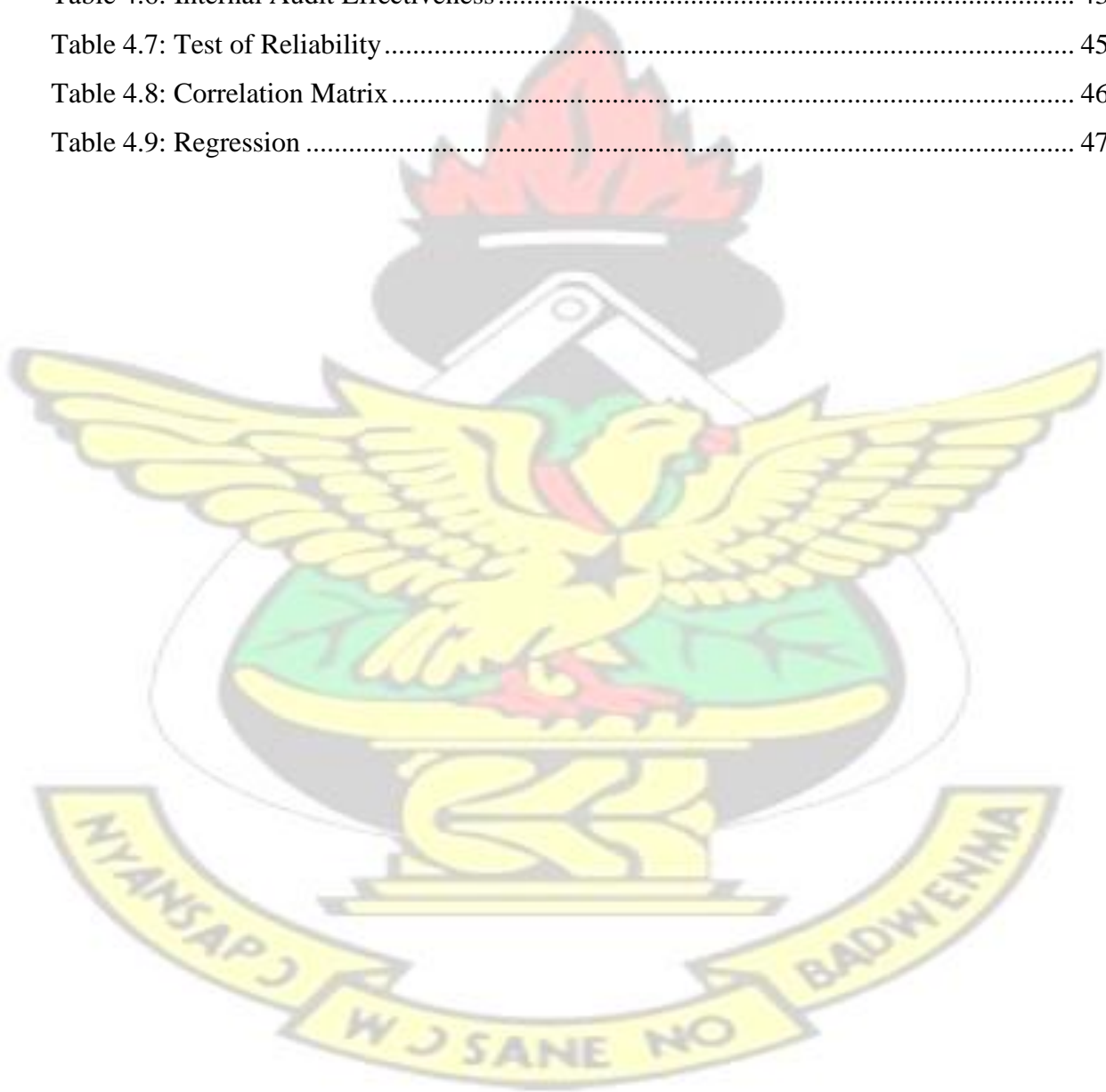
CHAPTER FIVE .....	51
SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS.....	51
5.1 Introduction .....	51
5.2 Summary of Findings .....	51
5.2.1 Internal Audit Staff Competency .....	51
5.2.2 Management support for internal audit .....	52
5.2.3 Internal Audit Quality .....	52
5.2.4 Internal Audit Organizational Setting .....	53
5.2.5 Internal Audit Effectiveness .....	53
5.3 Conclusions .....	54
5.4 Recommendations .....	56
5.5 Areas for Future Research .....	57
REFERENCES .....	59
APPENDIX.....	66





## LIST OF TABLES

Table 4.1: Respondents Demographic Information.....	37
Table 4.2: Internal Audit Staff Competency .....	39
Table 4.3: Management Support for Internal Audit .....	40
Table 4.4: Internal Audit Quality .....	41
Table 4.5: Internal Audit Organizational Setting .....	42
Table 4.6: Internal Audit Effectiveness .....	43
Table 4.7: Test of Reliability .....	45
Table 4.8: Correlation Matrix.....	46
Table 4.9: Regression .....	47



## LIST OF FIGURES

Figure 1.1 Conceptual Framework ..... 30

# KNUST



## LIST OF ABBREVIATIONS

ISPPIA	International Standards for the Professional Practices of Internal Auditing
IAD	Internal Audit Department
IIA	Institute of Internal Auditors
IAE	Internal audit effectiveness
ECOWAS	Economic Community of West African States
SPSS	Statistical Package for the Social Sciences
IPPF	International Professional Practices Framework
IA	Internal audit
MMDAs	Metropolitan, Municipal and District Assemblies



# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the study

Internal auditing contributes greatly to the performance of an organization and according to Cioban, Hlaciuc and Zaiceanu (2015), internal auditors' performance is very crucial for achieving consistency and sustainability in business operations. Deribe and Regasa (2014) for this reason explore the effect of effective internal auditing on the performance of public sectors and indicate that internal audit effectiveness was very vital for achieving job efficiency. According to the authors, some factors accounting to internal audit effectiveness include ownership and perception, firm size, the nature of occupational governance and other regulatory factors. To really benefit from internal auditing, managers must ensure that appropriate mechanisms are used to help monitor and motivate auditors to adequately perform their auditing roles to achieve desirable outcomes (Coetzee and Erasmus, 2017).

Coetzee and Erasmus (2017) further asserted that, improvement in auditing functions promotes effectiveness and thus reduces operational errors. Xiangdong (1997) as cited in Cohen and Sayag (2010) opined based on the agency theory that, internal audit has significant role in the development of quality financial statement thus, maintaining consistency and improvements in business activities. Similarly, Sprakman (1997) as cited in Badara et al. (2014) applied the transactional cost economics to determine audit quality and firm performance and found that, internal audits had significant impact on the performance of public institutions. Traditionally, the internal auditing concentrates on the management of internal controls and compliance within the organization. Internal auditing nonetheless has been one of the tools used by firms in the



management of company risk. Several authors have revealed useful information about internal audit such as its impact on the success of an organization (Cohen & Sayag, 2010; Hailemariam 2014; Kabaga and Mulyungi, 2017). Farouk and Hassan (2014) asserted that, internal audit characteristics have impact on operational performance.

Eulerich and Ratzinger-Sakel (2017) also showed that, internal audit effectiveness (IAE) was influenced by factors such as professionalism, audit knowledge and among others. On the other hand, the authors indicated that location of an organization and auditors' performance affects IAE. Various researchers in the study field have made several suggestions regarding internal auditing practices. For instance, these researchers have recommended that, firms fulfill with the ISPPIA (Ebimobowei and Binaebi, 2013; Ege, 2015). Badara (2015) also pointed that, there are certain principles that contributed significantly to the improvement of IAE. These principles per the author have been classified into three sections; planning, review works and fieldwork and reporting. Also, studies have assessed how the stakeholders point of view affects IAE considering factors like competency, audit size (IAD), association between internal and external auditors, management support and among others (Alzeban & Sawan, 2013; Badara and Saidin, 2013; Deribe and Regasa, 2014; Badara, 2015).

Regarding auditing, the standards have been indicated by ISPPIA and it is expected to be comply with by firms. These standards are defined by the Institute of Internal Auditors (IIA). Authors have looked into the various factors affecting the effectiveness of IAE. Based on the different results, authors suggest that managers are the main initiators of auditing while audit executives evaluate IAE. Again, the researchers employed various methods and techniques to measure the IAE while

others have concentrated on the compliance level of firms towards ISPPA (Ebimobowei and Binaebi, 2013; Deribe and Regasa, 2014; Eulerich and Ratzinger-Sakel, 2017). However, there have been critics about these measures such as its failure to consider outcomes in relation to the principal stakeholders (Farouk and Hassan, 2014). It is in this context that this research was conducted to evaluate the factors contributing to the IAE in selected government institutions in Ghana.

## **1.2 Problem statement**

There are few studies on IA as compared to EA practices. This study thereby assesses the impact of internal factors on IAE within the public institutions in Ghana. Due to this, there is the need for studies on the effect on IA on OP. So far as the research objective is concerned, this study focuses on firms' ability to ensure effective internal auditing to achieve quality and performance (Cioban et al, 2015; Coetzee and Erasmus, 2017). The researcher adopted the internal control measures to help identify risks and best ways to manage internal systems. Among these studies, few have focused on the economic aspect (Cohen and Sayag, 2010). Cohen and Sayag (2010) showed that, cost associated with auditing is performance of effectiveness. On the basis of this argument, the studies showed that, audit quality had been considered as the association between qualities and cost audit effectiveness. Though, these arguments cannot be revisited in terms of data in internal audit and cost, yet few studies have taken that route. In this study, the researcher used IAE to measure the quality of internal audit operations of managers in the audit department. In particular, the study examined measures such as planning to enhance growth, assessing the conformity of results with the objectives and targets set, the implementation of the proposed Recommendation and the development of general recommendations to promote business activity and performance.

No specific economic data were gathered, however, the survey included a question on economic efficiency and resource utilization.

### **1.3 Objectives of the Study**

The main objective of the study is to explore the factors that contribute to the effectiveness of internal audit in some selected public agencies in the Kumasi metropolitan areas of Ghana

1. To determine the effect of internal audit quality on internal audit effectiveness
2. To determine the effect of internal audit competency on internal audit effectiveness
3. To assess the effect of management support on internal audit effectiveness
4. To ascertain the effect of organisational setting on internal audit effectiveness

### **1.4 Research Questions**

1. What is the effect of internal audit quality on internal audit effectiveness?
2. What is the effect of internal audit competency on internal audit effectiveness?
3. What is the effect of management support on internal audit effectiveness?
4. What is the effect of organisational setting on internal audit effectiveness?

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

This study assesses the IAE in an emerging economy based on a strong tribal culture, divisions and a liberal capitalist market ideology. The study also focuses on the factors that influence the IAE and its impact on its performance. The findings from this would help management and various shareholders to examine the importance of IAE and some effective strategies use to help promote internal auditing practices. To the Management in the public sector the study may help



management to appreciate the role played by internal auditing function in their organizations and understand the challenges they face in carrying out their roles and help solve them. It may enable them to know whether their investment in strong IAD is worthwhile. Governing bodies and senior management in the public sector need the services of internal audit to be effective and efficient. At the same time the legitimacy of internal audit activity and its mission should be understood and supported by senior management of government entities to enhance its effectiveness in promoting good public sector governance, control and risk management systems. Modern internal audit practice has transformed into a professional discipline of its own and as a partner to governance bodies with strategic focus of contributing towards the improvement of organizational governance and risk management strategies. Internal auditors: The internal auditors may understand their role in organizations and the challenges they will face as they carry out these roles.

Again, to the academicians and scholars, the study contributes significantly to the internal auditing debate. The study will contribute to the existing literature regarding the effect of internal audit to corporate governance. Further, the study identified future research areas that will have advantage for future researchers to conduct further study in this area. Well performing internal audit function is one of the strongest means to monitor and promote good governance system in an organization. Internal auditing is an integral part of the corporate governance mosaic in both the public and the private sectors

### **1.6 Scope of the Study**

The research would be scoped into three; contextual, geographical and time scope. Contextually, the researcher examined the factors affecting IAE in decentralized local government institutions



in Ghana. The geographical scope will also be restricted to Ghana. Notwithstanding, the time scope would be set to one year for the completion of the study. Lastly, the study would be grouped into only five chapters.

### **1.7 Limitation of the Study**

The research would encounter challenges due to the area where the researcher focused. Most of the studies have concentrated on external auditing compared to internal auditing and therefore assessing information for the study was a challenge. Again, since the researcher had limited knowledge on the use of SPSS, further knowledge needed to be sought in order to analyze the data. Also, data collection was a challenge since some respondents were reluctant about answering the questions. Notwithstanding, all cost involved in conducting the study will be borne by the researcher. This will affect the sample size that will be selected as well as the time period for gathering data.

### **1.8 Organization of the study**

"This study will be divided into 5 chapters. The first chapter would be a broad introduction to the study. The second chapter would present a review of the literature. The third chapter would describe the methodological approach that the researcher used to conduct the study. The fourth chapter presents an analysis of the data and the fifth chapter concludes with a summary of the findings, conclusions and recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter provides a review of the literature applicable to the study with respect to elements that contribute to the IAE in public zone. The evaluation focused empirically on the impact of IA quality on IAE, the impact of IA competence on IAE, the impact of IA management support on IAE, and the impact of the organization's environment on IAE. Contingency and management theory was discussed and mentioned in theory. Finally, internal auditing and its historical context were evaluated.

#### **2.2 Overview of Construct**

##### **2.2.1 Internal Audit**

The phrase “Audit” has its foundation from the Latin Language, which literally indicates to question and assess (IIA, 2012). Audit is carried out with the usage to manipulate structures and appraisals and evaluation measures (Morgan, 2009; Wynne, 2001). The exercise of supply chain management and internal auditing are the two measures used to measure the improvement of enterprise operations. The importance of internal auditing has been diagnosed inside the ISO 9000 operational requirements. In line with ISO 9000, internal audit is an orderly process of acquiring applicable information in relation to the internal practices of an agency, which determines the financial performance of the organization. The practice of internal audit became well known after the Second World War. After the World War II, most businesses were greatly affected. Consequently this became very vital in the operations of corporations. The process of internal audit enable us to discover the very essential elements that have affected internal practices and through

this, measures are used to avoid the negative practices diagnosed. In easy terms, internal auditing relates to financial auditing between public institutions. Financial auditing is a method of ensuring duty and transparency in public institutions.

The theory associated with internal auditing was made famous by way of Lawrence Sawyer (1911-2002) who has been known as the current father of internal audit. The definitions of internal auditing are reliant on Sawyer's theory, which has its foundation from the International Professional Practices Framework (IPPF). Traditionally, the theory of auditing started way back inside the history of Mesopotamia around the 3500 BC when societies started to capture the significant internal auditing as a way of protecting the assets of the nation (Nordin, 2003; Dumitrescu, 2004). Auditing gained acknowledgement as a vital element of operations. The practices involved in auditing results to verification, separation of roles and internal manipulation systems (Nordin, 2003). There are two ways of auditing; there is the internal auditing and external auditing. Internal auditing is the type of auditing activities that relates to internal activities even as external auditing activities are carried out by way of auditors from outside the firm (Manoukian, 2016). Internal and external auditing brings about different outcomes, which end up in numerous frameworks and workflows.

The definition of (IIA 2009) states that, internal auditing is the method of assessing the internal systems, resources and operations of the agency closer to the success of the organizational dreams. The internal auditing practices add worth to organisational activities since the internal auditing practices will increase job performance, effectiveness and control of operations risks (Morgan, 2009). Internal auditing requires the abilities of experts who have the knowledge to conduct right

and an honest auditing of an organisation. This means that, corporations shape auditing teams or committees whose duty is to assess the financial costs of the agency using the flow of finances to endorse transparency, accuracy and the efficient use of resources to be accountable to enterprise proprietors (IIA, 2004; Protivi know-how leader, 2005). Internal activities lessen hazards in an enterprise, boom high-quality and ensure that, companies obtain their desires and goals (inner Auditors expert, 2013).

Internal auditing ought to be separated from the real operations of the company to avoid quarrel of interest. The responsibilities of the internal auditor are to boom transparency, add value and ensure accountability. Internal auditing assist to boost the competitiveness of businesses through achieving organisational dreams and objectives. Internal activities lessen threat in an organization, increase exceptional and ensure that, organizations attain their desires and goals (Internal Auditors expert, 2013). Internal auditing is a control tool used to control risks, enhance to manipulate measures and ensure compliance in an organisation (wooden, 2012). Internal auditing ends in identifying weaknesses and finding measures to enhance the overall performance of the firm. Internal auditing provides cost to a business enterprise via making it powerful (Mihret and Yismaw, 2011; Cohen and Sayag, 2010).

### **2.2.2 Internal Audit Effectiveness**

Alzeban and Gwilliam (2014) examined internal auditing and its effectiveness (IAE). The study found that, support from management and goals of auditors ensure auditing effectiveness. The aid from management has been grouped into training of staffs, making resources accessible to the audit department and others to improve the connection among internal and external auditing.



Studies performed in Saudi Arabia suggest an advantageous relationship among management and internal audit effectiveness. Effective audit practices are determined by way of the skills and capabilities of auditors. Auditing requires advanced skills and competence to spot sick practices within the financial practices of an agency (Cohen and Sayag, 2010). Internal audit have to be strictly related to ensuring enterprise increase and improvement. This indicates that, internal audit must aim at economic observance and the policies governing financing in the business enterprise (Diamond, 2002). The Institute of Internal Auditors (IIA) (2012) further introduced that, internal audit practices create an effective enterprise governance and compliance in companies.

Onumah and Krah (2012) performed a study of auditing within the Ghanaian public sector and the elements that have an effect on effectiveness in the public area with the usage of structured interviews. The information was solicited from management of the general public institutions and outcomes display that, effectiveness of internal auditing in the diverse public establishments are affected by the low level of professionalism of internal auditors, lack of compliance to budgetary allocations, lack of management ownership and assist for audit functions, the vulnerable functioning of audit committee and others. Efficient operational performance is carried out via compliance to audit recommendation. Internal auditors make contributions hugely to the development of companies. Addition to that, inner auditing results in companies accomplishing transparency, consistency, accountability and others. Moreover, internal audit practices reduces hazards in an organisation, increases center competences, reduce corruption and others. There is also the need for the internal auditor to boom overall performance to undoubtedly impact on audit results. Furthermore, internal auditors must be empowered to take actions primarily based on their discoveries and to make input into decision-making procedures in a corporation (IIA, 2011).

Researchers like Baharud-din et al. (2014) in addition said that, lack of assistance for the auditing department on the part of management adversely impacts their operations. Motivation inside the shape of management aid makes the branch very committed and effective. These motivations are in the shape of educating staffs, provisions of needed resources and among others. Akpomi and Amesi (2014) carried out a similar study in Nigeria in which public establishments were considered and suggested that, by and large, public officers adopt shoddy practices and while they're caught by auditors, the report of auditors are in most cases violated and coupled with that, they may be threatened for a work well performed. This has affected the operations of auditors over the years in Nigeria. Deribe and Regasa (2014) additionally centered on management control over auditors and how this has an effect on their overall performance and the study found that, management having influence over auditors have negative effect on auditing committees overall performance.

As indicated with the aid of Lenzy (2013), the collaboration among Chief Audit government and senior management are very significant in improving organizational performance. Right coordination and relationship among Chief Audit executive and senior management have fine effect on the operations of auditors, which results to performance and transparency. There's consequently the need for management to take a vital look at the shape of the auditing department and their operations and to moreover educate and aid by means of supplying wished resources and tools to enhance internal abilities. Internal audit also laid the basis for privacy and self-efficacy. This prevents the general public group from any external auditing activities (Dumitrescu, 2004).

Internal auditing is a device for comparing internal capital (Dumitrescu, 2004; IIA, 2009). Internal audit practices help management to correctly direct the operations of the enterprise.

## **2.3 Theoretical Orientation**

### **2.3.1 The Contingency Approach to Internal Audit Effectiveness**

Numerous researches have featured the Contingency theory to give an explanation for current accounting and auditing practices in an organization. Kepes et al. (2009) stated that, the effectiveness of companies relies on the importance they connect to audit activities, its strategies and structures. As found by means of the theory, organizational effectiveness is negatively influenced by the challenges that avoid the enterprise from reaching its dreams (Haldma&Laats, 2002; Gimzauskiene & Klovienė, 2011; Morton & Hu, 2008). This study carried out the theory with a purpose to observe the effectiveness of auditing within the selected companies. The theory was used to predict the effectiveness of internal auditing and its impact at the operational overall performance of organizations.

This theory can be followed to explore audit practices in public sector establishments (wood, 2009). The theory can be carried out in accomplishing effectiveness. This has brought about many researchers using the theory in supporting their studies, in particular in relation to its effectiveness (Haldma & Laats, 2002; Kim & Umanath, 1993; Morton & Hu, 2008; Kepes, et al. 2009; Nicholaoy, 2000). As argued by way of Nicholaoy (2000), contingency theory assesses the effectiveness of accounting and financial information in a company. Consistent with Nicholaoy (2000), for businesses to be effective, there are three essential elements to take into account and these consist of; formalization of the business enterprise, information interdependency and



independence of sharing information in an agency. The effectiveness of corporations is pondered inside the reality that, they've abilities and capabilities to adapt to the ever-changing environment both internally and externally (Haldma&Laats, 2002).

Kim and Umanath (1993) showed that, the effectiveness of an agency relies upon on its internal systems based on which decisions are made. Essentially, organizations emerge as aggressive through the internal management of resources. The capability of organizations to acquire internal controls is very critical to push the overall performance of a firm. It must be stated that, the decision-making method of organizations affects their performance. When the decision-making procedure is devoid of all battle of interest, businesses are capable to make knowledgeable decisions particularly when thoughts are sourced from personnel and different area officers who've interplay with the actual scenario on the floor. In line with Woods (2009), who explored how contingency theory results in the reduction of dangers in the local governance system of UK pronounced that, contingency theory affects risks management and the equipment which could correctly be used to reduce dangers encompass technology, external environment, organizational length and method. Also, Gordon, Loeb and Tseng (2009) observed a significant effective relationship among risks control and the performance of the enterprise. The variables taken into consideration in this association include firm size, firm complexity, technology and others.

Jokipii (2010) employed the theory of contingencies to assess the internal control system's effectiveness by means of considering contingency variables like company size, organizational shape, and uncertainty and amongst others. The study observed a vital contingent relationship with the performance of corporations. Krishnamoorthy (2002) introduced that, contingency variables



have more desirable impact at the overall performance of agencies via proper internal and external measures. Sudsomboon & Ussahawanitchakit (2009) worried that, elements like audit quality, stakeholder forces, expert competitiveness, audit popularity and others as proposed by the contingency theory leads to effectiveness in organizational operations. These decide the relevance of the contingency theory in supporting to reap audit effectiveness and firm overall performance. Organizations need to take note of their internal structures on the subject of their auditing branch and tool that can aid to attain effectiveness and transparency inside the practices of the enterprise.

Endaya and Hanefah (2013) emphasized that, organizational boom, process, achievement and effectiveness is reliant on management help for audit functions. As a result of this, decision-making is very essential in businesses. There is also the need for management to bear in mind the concept of every employee in making decision closer to the development and growth of a corporation. Undertaking broader session ends in support for that decision. After making a decision, members like personnel, management and different key employees have to follow the decision being made closer to the growth and improvement of the business enterprise even as ensuring effectiveness of audit functions. There need to be right coordination among auditors to hold the extent of effectiveness and transparency inside the organization. Badara (2015) have shown that contingency theory is one of the methods for measuring the extent of organizational performance through detecting effectiveness.

The contingency theory is diverse from theories based on its confirmation or rejection of hypothesis wherein there is a relationship between impartial and dependent variable (Drazin and Van de ven, 1985). The contingency theory aids researchers to examine the complexity of variables

and the moderating association among the variables below study (Heo& Han, 2003). A study conducted by way of Sekaran and Bougie (2009), which looked at moderating variables and the impact that independent variables have on dependent variables. Contingency theory has an instantaneous impact on audit overall performance when agencies use the contingency theory in decision-making manner. Extra so, the application of the contingency theory permits organizations to provide an explanation for the effectiveness of internal auditing measures, which results in effective performance.

## **2.4 Empirical Review**

### **2.4.1 Effect of Internal Audit Quality on Internal Audit Effectiveness**

Chang et al. (2019) examined the association between IAF quality and internal control deficiencies in operations and compliance. The results suggest that a larger internal audit team can enhance internal audit performance for both operations and compliance, whereas internal auditor competence is positively associated with the effectiveness of internal control over compliance, but not operations. This study contributes to the literature by shedding light on the determinants of the achievement of operations and compliance objectives. George et al (2015) assessed the components related with IA adequacy. The discoveries show that the fundamental variables impacting IA viability include: (1) nature of IA, (2) ability of IA group, (3) freedom of IA and (4) the board support. The findings of the investigation unveiled that internal auditors having the required level of independency in their operations promote internal audit quality.

Mihret and Ismaw (2007) examined the quality of internal audit as a factor affecting the cost-effectiveness of IA. In the case of the open segment in Ethiopia, the quality of internal audit was

found to influence the relevance of internal audit. Several studies, such as those by Barac and VanStaden (2009), explored the relationship between safeguarding the CG structure and the IA quality in South Africa. No link was found between the type of CG structure and the IA report quality. More recently, Cohen and Sayag (2010) assessed IA function quality in relation to IA in their study of 108 Israeli organisations. Alzeban and Gilliam (2014) also noted the effect of IA quality on their visibility.

The IA quality function depends on the consistency and compliance of the performance of its functions with a recognized standard of performance, as it is using targeted and trained methodology IIA (2010) to examine and improve the risk situation for management, control and governance. This deserves attention because of compliance with legal requirements and the responsibility of the auditor to identify areas where the assessment or audit report may influence management decisions and strategies (Belay, 2007). The specific nature of impact assessment work (i.e. compliance with formal indicators and high effectiveness in organization and evaluation) will make the assessment more relevant (Belay, 2007).

The research assessed auditor satisfaction in terms of EAP and follow-up (Prawit et al, 2010), implementation work (Stewart and Subramaniam, 2010), monitoring and reporting, compliance with implementation proposals and communicating effectively with EA (2012); Nagy & Cenker, 2002); IA needs to carefully plan its activities at each stage of the organisation and for each specific task (Prawit et al, 2010); IA planning covers each audit task which consists of yearly and strategic plans, audit objectives and audit files (Mihret and Yismaw, 2007).



In this case, the annual impact IA is crucial as a mechanism to align impact IA with the ambitions and expectations of the Audit Committee, external auditors and management (IIA, 2011). In addition, the optimal number of audit staff and the time needed to carry out the audit should be determined before the field work (Tandon et al., 2010). Audit planning is therefore an effective means to achieve IAD objectives (Mihret and Yismaw, 2007) and characterizes the IAE (Al-Twajjry et al., 2003; Mihret et al., 2010; George et al., 2015). In addition, AI is employed to control the internal auditor's performance (Al-Twajjry et al., 2003; IIA, 2011; Mihret & Yismaw, 2007). SPPIA 2240 argue that IA should broaden and document program of IA employed to attain the goal of IA.

Fieldwork on the application of IA involves the implementation of the auditor's plans in the preliminary phase (Mihret & Yismaw, 2007); during fieldwork on IA, IA must also be careful in gathering evidence and comparing the status of the audited organisation (Mihret, 2011). As a result, IA fieldwork has its own interesting characteristics. This is because the perspective of IA's work is different. Discussion papers were used in fieldwork as an audit methodology (Arens, et al., 2011). Audit programmes can be supported by audit working papers (Tandon et al., 2011). The working papers that underpin the report can be used throughout the audit system as a reference to support the audit plan and the evaluation of previous impact of IA (Stewart and Subramaniam, 2010). The end audit results in the preparation of an audit document, but like the external auditor's documentation, an IA report is not always uniform or concise in terms of content (Kinfu & Bayou, 2009). Postula et al. (2020) examined internal audit as tool to improve the efficiency. The empirical review confirmed a positive impact of internal audit efficiency metrics on the completion of public



service tasks at an operational level while no impact was recorded on the scale of completion for the areas at the strategic level of the council of ministers.

Kotb et al. (2020) reviewed the field of internal auditing (IA) post-Enron to develop insights into how IA research has developed, offer a critique of the research to date and identify ways that future research can help to advance IA. The IA literature has not significantly contributed to knowledge of the internal audit function (IAF), and we still know relatively little about the factors that contribute to making the impact of IA practice effective and measurable. The IA literature is US dominated (authors and journals), focused on the American context (publicly listed companies), 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.

#### **2.4.2 Effect of Internal Audit Staff Competency on Internal Audit Effectiveness**

Roussy et al. (2020) investigated to see how internal audit (IA) accomplishes and merges hierarchical significance. Meetings were led with review board of trustee's seats and boss review administrators from worldwide partnerships, and the taking an interest in enterprises' enlistment reports were investigated. The information indicated that IA accomplished and combined hierarchical significance by initiating the IA viability "building hinders" all in order to produce authoritative learning and positive change. Momentum IA viability drivers likewise, rose up out of the field.

Kabueye et al (2017) explored the involvement demonstrated by companies in the internal audit hierarchical status, internal auditors' competencies and internal audit practices on misrepresentation of management in financial management companies. The study utilized cross-sectional data. The sampled considered for undertaking this investigation comprises of 54 financial management companies in Kampala, Uganda. The results showed that the IA hierarchical status and the IA probability are important indicators of management misrepresentation. In contrast to the slowness of the arguments, the internal audit largely did not involve misrepresentation of management. Musa et al (2018) explored factors that determine the ability to conduct internal audits of Ghanaian public enterprises. The findings indicated that IA management support was the most important determinant of IA Capacity. Result also indicated that, the IA department size, IA staff usefulness, the degree of freedom of the IA function and the good link among IA and EA are important factors in determining the quality of IA.

The study indicated that, officers at the internal audit department should have sufficient technical knowledge and ability, and having anything short of this impacts the effectiveness of audit activities and the operations of the business. The study indicated that, most personnel's have short-term contracts because of their limited skills thus, the need for them to improve their knowledge to offer better services. Even though concerns have been raised, the frontline managers have not been capable to conform to the budgetary allocations of the company (Mihret and Yismaw, 2007). At the public sector, related complaints have been lodged to the presidents of the countries but results are hard to come by. This influenced the implementation and enforcement of findings in public institutions. Putting measures in place to ensure quality is very vital to achieving organizational performance at the public sector. There is the need for the government to employ

qualified auditors in the public sector to perform audit activities, which results to transparency and accuracy in institutions (Mihret and Yismaw, 2007).

Weldu (2017) examined the effectiveness of auditing duties on the performance of organizations. The researcher stated that, auditing activities are more effective when there is management aid. The argument here is that, management is in charge of every organizational activity thus, their aid of an activity results to most resources being channeled to assist that initiative. This demands that, managers must employ skilled, competent and qualified workers to conduct auditing activities in an organization to ensure effectiveness. Self-competency is the factor needed from auditors to ensure audit effectiveness (IIA, 2006). It was moreover emphasized by ISPPIA that, firms have to employ competent and qualified auditors and permit them to carry out their duties. The study of Al-Twaijry et al. (2004) emphasized that, competence is the only variable needed to examine effectiveness. Also, Ali et al. (2007) and Ahmad et al. (2009) in Malaysia explored the relevance of the internal auditing system in public institutions and discovered that, the experience of auditors, their knowledge, skills and others are the essential elements needed to enhance auditing activities in the Malaysia public sector. In South Africa, Schyf (2000) conducted a study using the public sector institution by examining the challenges or barriers to internal audit competences. Likewise, in the country of Sudan Brierley et al. (2001; 2003) and Gwilliam and El-Nafabi (2002) conducted the study in the public sector of Sudan and indicated that, the public sector has competent auditors to distribute enough work output. In the country of Ethiopia, Wolderupheal (1998); Milhret and Yismaw (2007); Mulugeta (2008) also confirmed the presence of competent workers.



According to Al-Twaijry et al. (2003) in the Saudi environment, staffs in the public sector of Sudan have the needed skills and training ,however, external auditors seems to have improved knowledge (GAB report, 2008; 2010). The lack of quality staff's posses' a vital challenge to internal auditing resulting to irregularities in an organization. Baharud-din et al. (2014) stated that, auditors should concentrate on improving their main competencies in terms of improving their educational capabilities, professionalism and experience. Core competencies are among the elements that contribute to organizational growth and development. Companies can only attain effectiveness when they pick competent, experienced and skilled auditors to perform their preferred duties. These competencies can be improved to attain better auditing where managers get access to vital information to make dependable decisions.

Mpakaniye (2017) reiterated that, staff competence is significant in ensuring job performance. The auditing unit must be given the free hands to perform without interference from management to be able to produce fair outcomes to the management of the organisation for suitable decision-making. Desai, Roberts and Srivastava (2006) concluded in their study that competence is the most significant variable that determines organizational performance. Developing intelligence and capabilities towards job performance promotes job functions. In cases where employees lack the needed skills towards a particular job, they are most probable to waste resources, which directly influence growth and development. This demands that, auditors must really be trained and adjust them on quality practices in their field to aid management make real decisions. Meggeneder (2015) also argued that, majority of the companies do not have qualified auditors to perform management duties and responsibilities. This results to poor supply on the part of auditors. The study of Meggeneder (2015) revealed that, between the 166 countries selected, there were only 40 percent



of the countries that are capable to commit auditors to 40 hours training on improving the skills of auditors.

Ismail et al. (2020) examined audit quality. The findings of this study show that there are positively significant relationship between auditor's independence and auditor's competency on audit quality. The results revealed that auditor's competency is the most significant factor affecting the audit quality in public sector audit. However, results show that auditor's workload has a negative and insignificant impact on audit quality.

Agordotse (2019) examined the effect of internal audit on corporate government. The study found that, Internal Audit staffs are highly qualified in term education however they lack enough staff in terms of numbers. It is also noted from the study that, qualification and experience, working environment, regulatory framework, and the independency of the Internal Audit are very essential for the conduct of effective Internal Audit practices in Metropolitan, Municipal, and District Assemblies. Furthermore the result indicates that, the existence and the role of Audit Committee in promoting effective audit practice at the Municipal and District level has not been effective. Most importantly, the study found that, effective Internal Audit practices impact good corporate governance of Municipal and District Assemblies.

Novisi (2019) assessed the effectiveness of the role of internal audit. The findings of the study reveal that independence, competency, the size, coordination between internal and external auditors, top management support have positive influence of effectiveness of internal audit function. Other factors such as competency level of internal audit staff which has been reported to

be low and as well as other ad-hoc duties assigned to internal auditors are noted to be the factors that affect its function negatively.

#### **2.4.3 Effect of Management Support for Internal Auditing on Internal Audit Effectiveness**

Dawuda et al. (2017) inspected Management Support Services and its impact on the presentation of Internal Audit Department in the Ghanaian Public Sector. An exploratory investigation approach was sent for this examination. The respondents comprises of Management, External Auditors and Heads of Internal Audit Departments in the three areas of the Northern Ghana. An all-out example size of 170 was utilized. It was uncovered that the Internal Auditors were not happy with the help that the administration gives. There was a solid positive relationship among Management Support Services and the Internal Audit execution. The indispensable help that influence Internal Audit execution were the board promise to working with Internal Auditors to create Internal Auditor Charter and giving enough coordination. It tends to be concluded that, the open division establishments in Ghana were not utilizing internal audit offices as an establishment for viable corporate administration. Alkebsi et al. (2017) pointed the directing impact of top administration support on the relationship among data innovation use, and internal audit adequacy. Surveys were appropriated to internal auditors in Yemeni privately owned businesses, with an aggregate of 104 reactions got. The investigation demonstrated a significant positive relationship among data innovation use and internal audit viability. Related results were gotten on the relationship among top administration support and internal audit adequacy. Then again the examination demonstrates that top administration support didn't direct the relationship among data innovation use and internal audit adequacy.

Alqudah et al. (2019) focused on the extrinsic factors, namely, top management support, complexity, independence and internal audit department's size that are out of internal auditors' control affecting their effectiveness. The results reveal that top management support, independence, and the size of internal audit department play a significant and positive role on the effectiveness of internal auditors, whereas complexity of the task has been found to make a negative impact on the level of their performance. Given the significance of the public sector within the Jordanian economy, the findings are valuable for the internal audit function, regulators, and decision-makers in proposing new legislation and regulations of an internal audit function.

Musah, Gapketor and Anokye (2018) investigated components predicting internal audit viability and demonstrated that IA management support is the utmost imperative indicator of internal audit viability. The exploration further found that, IA unit size, IA staff ability, autonomy IA unit just as legitimate link among internal and external auditors were imperative IA adequacy determinant . Ali (2018) explored the components affecting internal auditing and its relationship with authoritative presentation. The result demonstrated that, there is a huge relationship among skill of IA division, IA office size, the board support for IA Independence and hierarchical execution.

Vodaho (2019) assessed the drivers of IAE. The results showed that the IA team's competence, IA quality and the managerial support are important, but that the role of added value, improved service performance and organisational improvement do not determine the IAE. In Ethiopian insurance companies, however, the IAI is the only factor determining the IAE. The study proposed that the Ethiopian financial supervisor ( Ethiopia's National Bank ) should make efforts to ensure the IA' organisational independence to develop a transparent and structured approach. In addition, private insurers should change their approach to auditing and ensure that audit committees function



effectively in accordance with existing global standards to benefit from improved internal control standards, the adoption and implementation of internal control charters and manuals for each insurer, the standardization of audit reports and the approval of audit strategies.

Baharud-noise et al. (2014) evaluated to decide the relationship among components that add to the viability of IA works in advancing better straightforwardness and uprightness of open administration. This investigation recruited a cross sectional overview to assess the viability of IA. Various factual strategies, for example, the engaging measurement, relationship and relapse examination were utilized to break down the information from the study. The results showed a clear positive link between the items tested in this study, for example, examiner competency, evaluators' freedom and objectivity and the board backing to the adequacy of internal audit. Subsequently, the adequacy of internal audit would depend unequivocally to the properties of the components broken down in this examination. The results demonstrate absence of able, expertise and experience of the evaluators in internal audit division may cause the postponement in inspecting the work.

Management plays a vital role in firm performance particularly in the growth and development of the organization. For an organization to attain internal audit effectiveness, management need to ensure that, proper processes are followed to employ the appropriate personnel to perform the auditing duties to guarantee effective auditing. Furthermore, management need to enforce all laws related with the auditing duties so that auditors can make good auditing to attain efficiency in the internal auditing functions (Carcello et al., 2005). Management must motivate auditors to increase auditing performance in order to attain enhanced auditing systems thus attaining auditing goals and objectives (ISPPIA, Standard 2010). In order for management to fuel auditing practices,



auditors must give incentive reports to the management so that reports would help managers in decision making process. The Chief Audit Executive must give thorough information about the internal activities of the organization including financial performance so that the board can make informed decision to assist the growth and development of the organization (ISPPIA, Standard 2060). Managements' support aids to inspire internal auditors in conducting auditing duties to enhance effectiveness and transparency in the auditing performance.

Mihret and Yismaw (2007) indicated that, most public organizations have feeble internal audits because of feeble management and non-professional internal auditors in the diverse departments of the organization. Baltci and Yilmaz (2006) showed that, management are however perceived to enforce occupational laws and regulations as well as adopting effective auditing practices to assist improve operational performance. Furthermore, most managers refuse to implement internal auditing practices and also unable to attain effective internal audit (Van Gansberghe, 2005).

Turetken et al. (2019) assessed the effectiveness of internal audits and to understand the factors that influence audit effectiveness. A thorough analysis of the relevant studies resulted in a comprehensive list of indicators used for the operationalization of audit effectiveness and a list of potentially influencing factors. The results of the systematic review are synthesized into a framework.

Muneer et al. (n.d) examined the major determinants of internal audit effectiveness. The study found that independence of internal audit department (IIAD) and management support for internal audit (MSIA) are the major determinants of IAE. Moreover, information technology (IT) has a mediating role to enhance the positive contribution of IIAD and management support towards IAE.

Therefore, the study contributed in the literature by investigating the major determinants of internal audit and mediating role of IT.

Quaye (2019) examined the level of effectiveness of internal audit function of public tertiary institutions. The results show that the effectiveness of the public tertiary institution's internal audit function is on the medium-low level scale adopted in the study. This level of effectiveness is characterized by involvement in internal control audit process, top-level management support, resource availability and the management of the internal audit department.

#### **2.4.4 Effect of Organisational Setting on Internal Audit Effectiveness**

Authoritative setting isn't least difficult related with hierarchical approach and procedures to help the IA activity. Anyway it also covers the authoritative profile, inside big business capacity and position inside the total authoritative setting (Mihret and Yismaw, 2007). Clear approach and framework lined up with the association rehearses are indispensable and can affect the IA adequacy (Mihret and Yismaw, 2007). The investigation thinks about the undertaking's qualities, comprehensive of legislative issues, and position vagueness and war, as compelling components. Various examinations use overview surveys to inspire various variables of the authoritative setting and its effect on the IA viability. This incorporate, for instance, the authoritative shape and its capacity to give the system inside which the isolation of commitments is resolved (Karagiorgos, Drogalas, and Giovanis, 2011), or the presence (or absence) of clear principles and techniques towards which the hierarchical practices are to be measured (Mihret and Yismaw, 2007).

Hierarchical setting alludes to the authoritative profile, inner venture and budgetary notoriety of the internal audit working environment; and moreover, the hierarchical approaches and methodology that direct activity of examiners. It gives the setting where internal audit works. Accordingly, hierarchical setting can practice impact on the level of adequacy that internal audit could achieve. Authoritative setting remembers the sort of internal audit for the hierarchical shape; the fidelity of internal audit working environment's inner association; budgetary kind of the internal audit working environment; and the presence of sound mounted standards to assess auditees' practices. So as to make inner evaluating productive, there should exist clear guidelines and systems against which hierarchical practices. Sampson (2014) explored the effectiveness of internal audit. The study discovered that, there is professional proficiency in internal audit. Also, it was indicated that, there exists a quality audit work by the unit because of its strong compliances with the international auditing standards. In relation to the hypotheses testing, it was exposed that, professional proficiency and organizational independence have impact on the effectiveness of an internal audit department. Also, quality of audit work and career advancement were seen to have a positive impact on the effectiveness of the internal audit department with statistically significant coefficient thus, they were not rejected but top management support was seen to have no influence on the effectiveness of the internal audit.

Nerantzidis et al. (2020) reviewed literature related to public sector internal auditing. The study found that, an increase of publications up to 2017, most of which are single country-focused, particularly on emerging markets. Moreover, we note that IA has been studied at all government levels, most often at the local government level. Although we identify multiple research themes examined in the literature, most studies emphasize “governance” and “operational effectiveness”

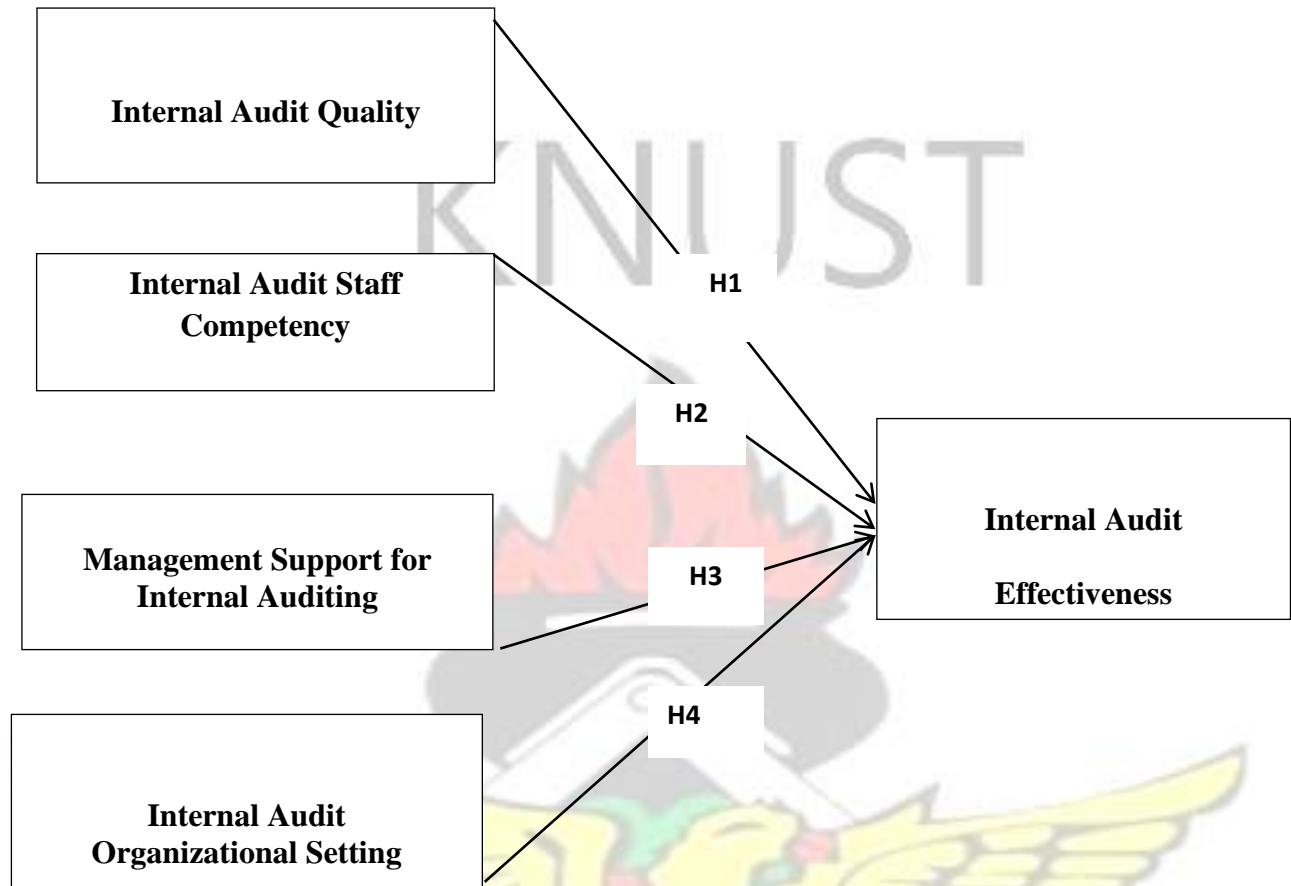
using quantitative analysis, without reference to any theory. By analyzing these key features, we critically interpret the challenges as well as the skepticism that may surface by researchers. Finally, considering implications from this stream of research and analyzing the most influential studies, we recommend new avenues for investigation such as comparative studies among countries and different markets that provide further evidence on the international and regional levels and studies on the effect of cultural, institutional and demographical characteristics in IA.

Menza et al. (2019) examined the determinants of internal audit effectiveness. The study found that, internal audit effectiveness is gender specific. Again, competency improves the effectiveness of internal audit. The study further found that, internal audit effectiveness is responsive for relatively higher level of independence. The availability of resources both human and material resources are also significantly predicts effectiveness of internal audit. The smooth relationship between internal and external auditors also significantly predicts effectiveness of internal audit.

## **2.5 Conceptual Framework and Hypotheses**

The main proposition of this study is that there are various aspects that contribute to IAE in some public institutions in Kumasi, as shown in Figure 2.1. The independent variables are therefore internal audit competence, IA management support, IA quality and an organisational IA scenario. The variable depends on the IAE.





Source: Author's Construct  
Figure 1.1 Conceptual Framework

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter provides an overview of the methodology used to examine IAE factors in selected government agencies in the Kumasi Metropolitan Region of Ghana. The specific methods and techniques applied in this study include survey design, research population, sampling and sampling procedures, data collection procedures, data analysis and reliability test.

#### **3.2 Research Design**

Quantitative study methods are used to evaluate the drivers that contribute to the IAE in some selected public agencies in the Kumasi metropolitan areas of Ghana. This is because it is compatible with the overall approach to the study. Moreover, the study will use structured questionnaire to obtain data and use statistical approaches to analyze the data and empirically test hypotheses. Moreover, due to the cause and effect relationship in the objectives of the study, explanatory research design would be employed. Sounder's (2012) argued that, explanatory survey research could be used to address a question being raised, it is appropriate in solving issues being posed, to assess objectives and goals of the study and to determine the cause-and effect relationship.

#### **3.3 Population of the Study**

There are different kind of populations which could be used in a research study. This study defines population as shared characteristics of identity and culture among a specified group of people. The population of a study defines a group or element with a shared identity (Saunders et al., 2012).

The main objective of the study is to assess the determinants of internal Audit effectiveness in some selected Public Service Agencies in the Kumasi metropolitan areas of Ghana. The population of the study consisted of some selected public agencies in the Kumasi metropolitan areas of Ghana. The target population of the study comprised of accountants, auditors and financial officers in the Kumasi metropolis of Ghana. Kumasi municipality was chosen because no such study has been conducted in recent times and also information was available in the various units selected in the metropolis.

### **3.4 Sample and Sampling Procedure**

Sampling involves the selection of part of a group to represent the group. Again, it is the process of carefully selecting representatives from a given population (Sekaran, 2008). The census approach was used for the study. Due to this, all the internal auditors in the public agencies within the Kumasi were estimated to be 75. Per the summary survey conducted, there are four internal audit personnel in all these internal audit units. The participants were selected using purposive sampling technique. This is because auditing is a noble profession and not anyone has knowledge on their scope of work. It is therefore imperative to select people who have adequate knowledge on the issues being investigated.

### **3.5 Data Collection Method**

Data collection encompasses the whole process through which data are collected from a group of people, a place or a thing. The procedure for soliciting for information from a target population is termed data collection. This could be either primary or secondary information. The main source of data for the study is primary (Sekaran, 2008). The present study would use primary data and

structured questionnaires. The structured questionnaire has been detailed in the next section. The instrument used for collecting primary data for the study was structured questionnaire.

### **3.5.1 Data Collection Instrument**

Questionnaire was structured in such a way that; it would make sense to the respondents in order to acquire better information from their responses. The questionnaire was also structured based on the objectives of the study. The questionnaire was made up of three elements. The first part focused on the profile of the respondents, the second focused on factors influencing the IA effectiveness within the MMDAs, and the third information on internal audit effectiveness in public sector. The questionnaire was closed-ended to save respondent's time. The self-administered questionnaire formed the primary source of data for the study. The respondents were assured of their confidentiality that the information was only to serve academic purpose. The study adhered to different codes of ethics concerning data collection and information retrieval. The respondents were thoroughly guided to complete the questionnaire. The questionnaires were adopted and modified from previous studies.

### **3.5.2 Pretesting of Instrument**

Pretesting of instruments would be done to ensure that the instrument is free from all forms of ambiguity and discrepancies. The instruments would be pretested in Kumasi metropolis with 10 internal auditors across the public agencies. This is aimed to obtain the needed inputs from the experts in order to improve the content of the questionnaire wherever necessary. The feedback from the pretesting will determine the final instruments and the direction of the study.



### 3.6 Data Analysis Techniques

Data analysis refers to the process of adding more meaning to a dataset. The process of classifying, sorting, naming, tabulating and interpreting is termed as data analysis. The analyses of the study would be carried out with SPSS 23.0 version software. The study would present both descriptive analysis for means, SD and inferential statistics for instant correlation and regression. The regression and correlation analyses would be used to test the proposed hypotheses and also address the objectives of the study. Cronbach Alpha test was used to assess reliability of the measurement instruments. The formula for a multiple linear regression is:

$$y = \beta_0 + \beta_1 X_1 + \dots + \beta_n X_n + \varepsilon$$

**y** = the predicted value of the dependent variable

**B<sub>0</sub>** = the y-intercept (value of y when all other parameters are set to 0)

**B<sub>1</sub>X<sub>1</sub>** = the regression coefficient (B<sub>1</sub>) of the first independent variable (X<sub>1</sub>) (a.k.a. the effect that increasing the value of the independent variable has on the predicted y value)

... = do the same for however many independent variables you are testing

**B<sub>n</sub>X<sub>n</sub>** = the regression coefficient of the last independent variable

**e** = model error (a.k.a. how much variation there is in our estimate of y)

Where y is the internal audit effectiveness (dependent variable), x is comprised of audit competency, management support, internal audit quality and organisational setting (independent variable) whiles the A and B are coefficients dictating the equation. The difference between the

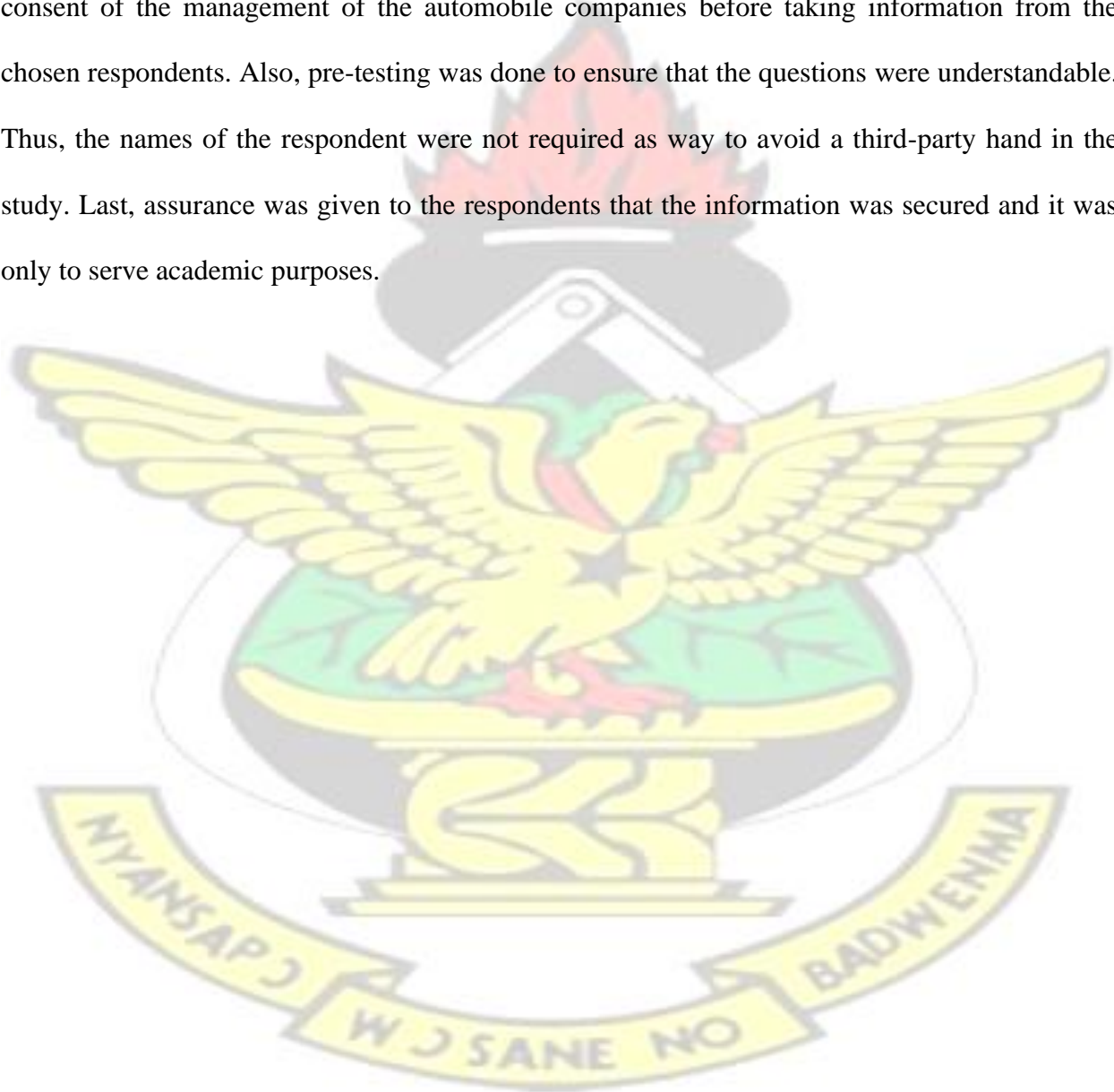
equation for linear regression and the equation for multiple regression is that the equation for multiple regression must be able to handle multiple inputs, instead of only the one input of linear regression.

### **3.7 Validity and Reliability Test**

To ensure reliability of the measurement instruments, Cronbach alpha test was performed. Kent, (2007) identified that reliability is defined as the degree to which the software of a scale produces consistent results if repeated measures are taken. The Cronbach's coefficient alpha ( $\alpha$ ) was used to decide the mean reliability coefficient for the scale of social and personality factors. The value of Cronbach's alpha ranges from 0 to 1 and the closer the value of  $\alpha$  to 1 the better the reliability. Hair, et al., (2006) explained that alpha threshold of 0.5 for simple studies and later adjusted the value to 0.7. In this study, the cut-off factor for  $\alpha$  is 0.5. With respect to the measurement of variables, most of the items were taken from the study made with the aid of Cohen and Sayag (2010), because they tally with the targets of the current study.

### 3.8 Ethical Considerations of the Study

The researcher is aware of the ethical principles associated with all research. In this respect, the researcher has taken into account the ethics of anonymity, confidentiality of information, respect for the respondent's honour and the provision of data collection methods does not embarrass respondents and that, the study is carried out in good environment. The researcher sought for the consent of the management of the automobile companies before taking information from the chosen respondents. Also, pre-testing was done to ensure that the questions were understandable. Thus, the names of the respondent were not required as way to avoid a third-party hand in the study. Last, assurance was given to the respondents that the information was secured and it was only to serve academic purposes.



## CHAPTER FOUR

### DATA ANALYSES AND DISCUSSIONS

#### 4.1 Introduction

This chapter provides the results and research discussion on the issues that influence the IAE in certain government institutions in the Kumasi Metropolitan Region of Ghana. The analysis and discussion focused on: the impact of IA quality on IAE; the impact of IA competence on IAE; the impact of managerial support for IAE; and the impact of the organizational environment on IAE.

#### 4.2 Demographic Information

**Table 4.1: Respondents Demographic Information**

Variables	Frequency	Percentage
<b>Gender</b>		
Male	55	73.3
Female	20	26.7
<b>Age</b>		
18-30 years	56	74.7
31-40 years	13	17.3
41-50 years	6	8.0
<b>Level of education</b>		
Diploma/HND	31	41.3
Bachelor degree	30	40.0
Masters' degree	14	18.7
<b>Job designation</b>		
Director	6	8.0
Assistant Director	4	5.3
Planning Officer	1	1.3
Internal Auditor	30	40.0
Accountant	34	45.3
<b>Years of working with the institution</b>		
0-3 years	7	9.3
4-7 years	12	16.0
7-10 years	47	62.7
10 years and above	9	12.0

*Source: Field Data, 2020*



Respondents' demographic information has been presented in the Table 4.1. The study showed that, majority (73.3%) of the respondents were male and the remaining 26.7% of the respondents were female. Based on this, the findings demonstrated that, the male sampled respondents dominated in all of the respondent's percentage. Results on respondents' age indicated that, majority (74.7%) of the respondents were between the ages of 18-30years, 17.3% of the respondents were between 31-40years and the remaining 8.0% of the respondents were between 41-50years. Based on the findings, the largest amount of the respondents were between the ages of 18-30years. With respondents' level of education, the study showed that, 41.3% of the respondents were in the level of diploma/HND, 40.0% of the respondents were degree holders and the remaining 18.7% of the respondents were master degree holders. Taking into account of the findings in the study, the dominating groups of the respondents were the level of Bachelor's degree. The study showed that, 45.3% of the respondents were Accountant, 40.0% of the respondents were internal auditors, 8.0% of the respondents were directors, 5.3% of the respondents were assistant directors and the remaining 1.3% of the respondents was planning officers. The study showed that, majority of the respondents (62.7) have worked for seven to 10 years, 16.0% of the respondents have worked with the institution for 4-7years, 12.0% of the respondents have worked with the institution for 10 and above years, and the remaining 9.3% of the respondents have worked with the institution for zero to three years. On the basis of the results, the larger portion of the respondents have worked with the institution for 7-10years.

### 4.3 Internal Audit Staff Competency

**Table 4.2: Internal Audit Staff Competency**

Items	N	Mean	Std. D
Internal auditors are proactive	75	3.13	1.72
The professional knowledge of internal auditors are high	75	3.90	0.98
Internal auditors are considered as professionals	75	4.69	0.46
There is communication between internal and external auditors and auditees	75	3.26	1.58
Internal auditors attend educational seminars for continuous training	75	3.16	1.67
Internal auditors have adequate education	75	3.16	1.79

*Source: Field Data, 2020*

Table 4.2 presents internal audit staff competency as a dimension in internal audit effectiveness. With regards to internal audit staff competency as a dimension in internal audit effectiveness, the study found that, majority of the respondents were not sure whether the internal auditors were proactive with a recorded (mean= 3.13, SD= 1.73); majority of the respondents were not certain as to whether the professional knowledge of internal auditors were high with a recorded (mean= 3.91, SD= 0.99); majority of the respondents agreed that, internal auditors were considered as professionals with a recorded (mean= 4.69, SD= 0.46); majority of the respondents were not sure whether there was a communication between internal and external auditors and auditees with a recorded (mean= 3.27, SD= 1.59); majority of the respondents were not sure whether internal auditors attend educational seminars for continuous training with a recorded (mean= 3.16, SD= 1.68); majority of the respondents were not certain as to whether internal auditors have enough education with a recorded (mean= 3.16, SD= 1.79). The implications of the study were that, majority of the respondents somewhat agreed that, the internal auditors were proactive, have enough education and also attend educational seminars for continuous training. Also, the study agreed that internal auditors were considered as professionals.

#### 4.4 Management Support for Internal Audit

**Table 4.3: Management Support for Internal Audit**

Items	N	Mean	Std. D
Senior management supports internal audit to perform its duties and responsibilities	75	4.58	0.49
Senior management are involved in the internal audit plan	75	4.54	0.50
Internal audit provides senior management with sufficient, reliable and relevant reports about the work they perform and recommendations made	75	4.46	0.55
The response to internal audit reports by the senior management is reasonable	75	4.58	0.49
Internal audit department is large enough to successfully carry out its duties and responsibilities	75	4.48	0.94
Internal audit department has sufficient budget to successfully carry out its duties and responsibilities	75	4.14	1.20

*Source: Field Data, 2020*

Table 4.3 presents management support for internal audit as a dimension in internal audit effectiveness. The study found that, almost all of the respondents agreed that, senior management supports internal audit to perform their roles and responsibilities with a recorded (mean= 4.59, SD= 0.49); majority of the respondents agreed that, in making audit plans the involvement of senior management were assured with a recorded (mean= 4.55, SD= 0.50); majority of the respondents agreed that, internal audit delivers adequate and consistent results and recommendations that are very imperative to senior management with a recorded (mean= 4.47, SD= 0.55); majority of the respondents agreed that, senior management sensibly and precisely respond to internal reports with a recorded (mean= 4.59, SD= 0.49); majority of the respondents agreed that internal audit department has wide and adequate space to successfully perform their auditing tasks with a recorded (mean= 4.48, SD= 0.95); majority of the respondents agreed that, internal audit department has enough funds to properly and effectively carry on its duties and responsibilities with a recorded (mean= 4.15, SD= 1.20). The implications of the study were that, majority of the respondents agreed that, the senior management support internal audit to carry out



their duties and roles, and involved in the internal audit plan whereas the department of internal audit has sufficient budget and also large enough to successfully carry out their duties and responsibilities.

#### 4.5 Internal Audit Quality

**Table 4.4: Internal Audit Quality**

Items	N	Mean	Std. D
Examination of reliability and integrity of information, checking working papers quality properly done by internal auditors.	75	4.32	1.24
External auditors use internal audit working papers and reports in conducting their audit.	75	4.58	0.49
Internal audit work was efficiently performed according to the audit plan.	75	4.54	0.50
Internal audit findings are correctly argued and justified.	75	4.46	0.55
Internal audit recommendations can be easily implemented.	75	4.58	0.49
Internal audit report is accurate (clear and logical).	75	4.48	0.94

**Source: Field Data, 2020**

Table 4.4 presents internal audit quality as a dimension in internal audit effectiveness. With regards to internal audit quality as a dimension in internal audit effectiveness, the study found that, majority of the respondents agreed that, examination of reliability and integrity of information, checking working papers quality properly was done by internal auditors with a recorded (mean= 4.32, SD= 1.24); majority of the respondents agreed that, external auditors use internal audit working papers and reports in conducting their audit with a recorded (mean= 4.59, SD= 0.49); majority of the respondents agreed that, internal audit work was efficiently performed according to the audit plan with a recorded (mean= 4.55, SD= 0.50); majority of the respondents agreed that, internal audit findings were correctly argued and justified with a recorded (mean= 4.47, SD= 0.55); majority of the respondents agreed that, internal audit recommendations can be easily implemented with a recorded (mean= 4.59, SD= 0.49); majority of the respondents agreed that, internal audit report was accurate with a recorded (mean= 4.48, SD= 0.95). The implications of the study were



that, majority of the respondents agreed that, the internal audit work was efficiently performed according to the audit plan, internal audit suggestions can be easily implemented and also the report of internal audit was accurate.

#### 4.6 Internal Audit Organizational Setting

**Table 4.5: Internal Audit Organizational Setting**

Items	N	Mean	Std. D
The organization is a very personal place like an extended family	75	4.12	1.06
The organization is very dynamic and entrepreneurial. People take risks.	75	4.09	1.00
The organization is results oriented, competitive and achievement oriented	75	4.25	0.83
The organization is very controlled and structured with formal procedures	75	3.86	0.94
The organization is generally considered to exemplify mentoring, facilitating or nurturing	75	3.40	1.17
The organization is generally considered to exemplify no-nonsense aggressive results-oriented Focus	75	2.86	1.16

**Source: Field Data, 2020**

Table 4.5 presents internal audit organizational setting as a dimension in internal audit effectiveness. The study found that, the institution was a personal place just as the extended family with a recorded (mean= 4.12, SD= 1.06); majority of the respondents agreed that, the organization was very dynamic and entrepreneurial with a recorded (mean= 4.09, SD= 1.00); majority of the respondents agreed that, the organization was results oriented, competitive and achievement oriented with a recorded (mean= 4.25, SD= 0.84); majority of the respondents were not sure whether the organization was very controlled and structured with formal procedures with a recorded (mean= 3.87, SD= 0.95); majority of the respondents were not certain as to whether the organization was by and large viewed to exemplify mentoring, facilitating or nurturing with a recorded (mean= 3.40, SD= 1.17); majority of the respondents disagreed to the statement that, the organization was commonly viewed to demonstrate no-nonsense aggressive results-oriented focus with a recorded (mean= 2.87, SD= 1.17). The implications of the study were that, majority of the

respondents agreed that their organization was a personal place just as the extended family and was also results oriented, competitive and achievement oriented. Moreover, majority of the respondents somewhat agreed that, organization was very controlled and structured with formal procedures and was generally considered to exemplify mentoring, facilitating or nurturing.

#### 4.7 Internal Audit Effectiveness

**Table 4.6: Internal Audit Effectiveness**

Items	N	Mean	Std. D
Internal audit is performed in accordance with the IIA Standards	75	2.88	1.15
Internal audit develops a risk-based annual plan	75	3.26	1.16
Internal audit communicates timely the engagement results	75	3.92	0.74
Internal audit makes appropriate recommendations for improving the organizational processes	75	3.97	0.75
Internal audit establishes a follow-up process to ensure that corrective actions have been effectively implemented	75	4.00	0.77
Internal audit reviews the effectiveness and efficiency of operations and programs	75	3.92	0.85
Internal audit reviews the reliability and integrity of financial information	75	4.80	0.40
Internal audit evaluates the effectiveness of controls regarding the safeguarding of assets	75	4.53	0.50
Internal audit evaluates the compliance with procedures, policies, plans and regulations	75	4.57	0.49
Internal audit improves the effectiveness of internal control process	75	4.44	0.49
Internal audit improves the effectiveness of risk management process	75	4.58	0.49
Internal audit evaluates and improves the effectiveness of governance process	75	4.54	0.50

*Source: Field Data, 2020*

Table 4.6 presents internal audit effectiveness. The study found that, majority of the respondents disagreed that, internal audit was not executed in line with the IIA Standards with a recorded (mean= 2.88, SD= 1.15); majority of the respondents were not sure whether internal audit formulates a risk-based annual plan with a recorded (mean= 3.27, SD= 1.17); majority of the respondents were not certain as to whether internal audit communicates timely the engagement results with a recorded (mean= 3.92, SD= 0.75); majority of the respondents were not sure whether

reliable and relevant recommendations are suggested by internal audit for improving the organizational processes with a recorded (mean= 3.97, SD= 0.75); majority of the respondents agreed that internal audit sets a follow-up process to certify that corrective actions have been well implemented with a recorded (mean= 4.00, SD= 0.77); majority of the respondents were undecided on whether internal audit inspects the effectiveness and efficiency of activities and programs with a recorded (mean= 3.92, SD= 0.85); majority of the respondents agreed that, internal audit reviews the reliability and integrity of financial information with a recorded (mean= 4.80, SD= 0.40); majority of the respondents agreed that, internal audit evaluates the effectiveness of controls concerning the shielding of assets with a recorded (mean= 4.53, SD= 0.50); majority of the respondents agreed that, internal audit make appraisal on whether strategies, processes, plans and guidelines are being comply with (mean= 4.57, SD= 0.49); majority of them as well consented that, internal audit enhances the effectiveness of internal control process with a recorded (mean= 4.44, SD= 0.49); the respondents agreed that, internal audit was prompting the effectiveness of risk management process with a recorded (mean= 4.59; SD= 0.49); further they agreed that, internal audit appraise and improves the effectiveness of governance process with a recorded (mean= 4.55, SD= 0.50). The implications of the study were that, majority of the respondents agreed that their internal audit performs some activities such as, establishing a follow-up process to ensure that corrective actions have been effectively implemented, evaluating and improving the effectiveness of governance process, reviewing the reliability and integrity of financial information as well as evaluating the compliance with procedures, policies, plans and regulations. Moreover, majority of the respondents somewhat agreed that, internal audit carry out some duties such as, communicating timely the engagement results and also reviewing the effectiveness and efficiency of operations and programs.

#### 4.8 Measure of Internal Consistency (Reliability Test)

The measurement instruments were assessed to ascertain their suitability for the study using Cronbach Alpha Statistical Test. The study found that the Cronbach alpha values ranged from minimum of 0.739 to maximum 0.898 which is above the acceptable minimum requirement of 0.7. It could be concluded that, the measurement instruments have high reliability due to high internal consistency.

**Table 4.7: Test of Reliability**

Construct	Number of items	Cronbach Alpha
Internal Audit Staff Competency	6	0.898
Management Support for Internal Audit	6	0.725
Internal Audit Quality	6	0.739
Internal Audit Organisational Setting	6	0.766
Internal Audit Effectiveness	12	0.788

#### 4.9 Inter- Construct Correlation

As showed in the Table 4.8 the study found that, internal audit staff competency had no significant correlation ( $R=-0.138$ ,  $p\text{-value} > 0.05$ ) with internal audit effectiveness. Meanwhile, the study found that, there was a significant correlation between management support for internal audit and internal audit effectiveness ( $R=0.290$ ,  $p\text{-value} < 0.05$ ).



**Table 4.8: Correlation Matrix**

		Internal_A udit_Staff _Compete ncy	Managem ent_Suppo rt_Internal _Audit	Internal_A udit_Quali ty	Internal_A udit_Orga nisation al_Setting	Internal_A udit_Effect iveness
Internal Audit Staff Competency	Pearson Correlation Sig. (2-tailed)	1				
Management Support for Internal Audit	Pearson Correlation Sig. (2-tailed)	-.109 .351	1			
Internal Audit Quality	Pearson Correlation Sig. (2-tailed)	-.105 .370	.988** .000	1		
Internal Audit Organisational Setting	Pearson Correlation Sig. (2-tailed)	-.029 .806	-.071 .542	-.075 .525	1	
Internal Audit Effectiveness	Pearson Correlation Sig. (2-tailed)	-.138 .236	.290* .012	.284* .014	.643** .000	1

Again, the study found a significant correlation between internal audit quality and internal audit effectiveness ( $R=0.284$ ,  $p\text{-value} < 0.05$ ). Lastly, the study found a significant correlation between internal audit organisational setting and internal audit effectiveness.

#### 4.10 Regression result on Factors Influencing Internal Audit Effectiveness

As showed in the Table 4.9 the study revealed that, internal audit staff competency was a significant factor that contribute to the effectiveness of internal audit ( $\beta=0.057$ ,  $T\text{-value}=2.865$ ,  $p\text{-value} < 0.05$ ). Moreover, management support for internal audit was not a significant factor that contribute to the effectiveness of internal audit ( $\beta=0.521$ ,  $T\text{-value}=0.605$ ,  $p\text{-value} > 0.05$ ). Again, the study found that, internal audit quality was not a significant factor that contribute to the effectiveness of the internal audit ( $\beta=0.022$ ,  $T\text{-value}=0.027$ ,  $p\text{-value} > 0.05$ ). Meanwhile, the study

found that, internal audit organisational setting was a significant factor that contributes to the effectiveness of internal audit ( $\beta=0.761$ , T-value=8.106, p-value < 0.05).

**Table 4.9: Regression**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	18.876	4.671		4.041	.000
Internal_Audit_Staff_Competency	.057	.056	.083	0	.001
1 Management_Support_Internal_Audit	.521	.862	.315	.605	.547
Internal_Audit_Quality	.022	.837	.014	.027	.979
Internal_Audit_Organisational_Setting	.761	.094	.664	8.106	.000
R			0.730		
R Square			0.534		
Adjusted R Square			0.507		
Df			4		
F-value			20.022		
Sig.			0.000		

a. Dependent Variable: Internal\_Audit\_Effectiveness

## 4.11 Discussions of the Results

### 4.11.1 Effect of internal audit staff competency on effectiveness of internal audit

The research indicated that, IA staff competency was a significant factor that contribute to the effectiveness of internal audit ( $\beta=0.057$ , T-value=2.865, p-value < 0.05). Roussy et al. (2020) investigated to see how internal audit (IA) accomplishes and merges hierarchical significance. Meetings were led with review board of trustee's seats and boss review administrators from worldwide partnerships, and the taking an interest in enterprises' enlistment reports were investigated. The information indicated that, IA accomplished and combined hierarchical significance by initiating the IA effectiveness. Kabueye et al (2017) explored the involvement demonstrated by companies in the internal audit hierarchical status, internal auditors' competencies and internal audit practices on misrepresentation of management in financial

management companies. The study utilized cross-sectional data. The sampled considered for undertaking this investigation comprises of 54 financial management companies in Kampala, Uganda. The results showed that the IA hierarchical status and the IA probability are important indicators of management misrepresentation. In contrast to the slowness of the arguments, the internal audit largely did not involve misrepresentation of management. Musa et al (2018) explored factors that determine the ability to conduct internal audits of Ghanaian public enterprises. The findings indicated that IA management support was the most important determinant of IA Capacity. Result also indicated that, the IA department size, IA staff usefulness, the degree of freedom of the IA function and the good link among IA and EA are important factors in determining the quality of IA.

#### **4.11.2 Effect of Management Support on effectiveness of internal audit**

The study indicated that, IA managerial support was not a significant factor that contribute to IAE ( $\beta=0.521$ , T-value=0.605, p-value > 0.05). Dawuda et al. (2017) inspected Management Support Services and its impact on the presentation of Internal Audit Department in the Ghanaian Public Sector. An exploratory investigation approach was sent for this examination. The respondents comprise of Management, External Auditors and Heads of Internal Audit Departments in the three areas of the Northern Ghana. An all-out example size of 170 was utilized. It was uncovered that the Internal Auditors were not happy with the help that the administration gives. There was a solid positive relationship among Management Support Services and the Internal Audit execution. The indispensable help that influence Internal Audit execution were the board promise to working with Internal Auditors to create Internal Auditor Charter and giving enough coordination. It tends to be concluded that, the open division establishments in Ghana were not utilizing internal audit offices

as an establishment for viable corporate administration. Alkebsi et al. (2017) pointed the directing impact of top administration support on the relationship among data innovation use and internal audit adequacy. Surveys were appropriated to internal auditors in Yemeni privately owned businesses, with an aggregate of 104 reactions got. The investigation demonstrated a significant positive relationship among data innovation use and internal audit viability. Related results were gotten on the relationship among top administration support and internal audit adequacy. Then again, the examination demonstrates that, top administration support didn't direct the relationship among data innovation use and internal audit adequacy.

#### **4.11.3 Effect of internal audit Quality on effectiveness of internal audit**

Again, the study found that, internal audit quality was not a significant factor that contribute to the effectiveness of the internal audit ( $\beta=0.022$ , T-value=0.027, p-value > 0.05). Sampson (2014) explored the effectiveness of internal audit. The study discovered that, there is professional proficiency in the internal audit. Also, it was indicated that, there exists a quality audit work by the unit because of its strong compliances with the international auditing standards. In relation to the hypotheses testing, it was exposed that, professional proficiency and organizational independence have impact on the effectiveness of an internal audit department. Also, quality of audit work, career and advancement were seen to have a positive impact on the effectiveness of the internal audit department with statistically significant coefficient thus, they were not rejected but top management support was seen to have no influence on the IAE.



#### **4.11.4 Effect of organisational setting on effectiveness of internal audit**

The research found that, IA organisational setting was a significant factor that contributes to the IAE ( $\beta=0.761$ , T-value=8.106, p-value < 0.05). George et al (2015) assessed the components related with internal audit adequacy. The discoveries showed that, the fundamental variables impacting internal audit viability include: (1) IA nature, (2) IA group ability, (3) IA freedom and (4) the board support. The findings of the investigation unveiled that, internal auditors having the required level of independency in their operations promote internal audit quality. Mihret and Ismaw (2007) examined the quality of internal audit as a factor affecting the cost-effectiveness of IA. In the case of the open segment in Ethiopia, the quality of internal audit was found to influence the relevance of internal audit. Several studies, such as those by Barac and Van Staden (2009), explored the relationship between safeguarding the CG structure and the IA quality in South Africa. No link was found between the type of CG structure and the IA report quality. More recently, Cohen and Sayag (2010) assessed IA function quality in relation to IA in their study of 108 Israeli organizations. Alzeban and Gilliam (2014) also noted the effect of IA quality on their visibility.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents the summary of findings, conclusions and recommendations of the study in relation to factors that contribute to the effectiveness of internal audit in some selected public agencies in the Kumasi metropolitan areas of Ghana. Specifically, the conclusions and recommendations are based on the effect of internal audit quality on internal audit effectiveness; the effect of internal audit competency on internal audit effectiveness; the effect of management support on internal audit effectiveness and effect of organisational setting on internal audit effectiveness.

#### **5.2 Summary of Findings**

##### **5.2.1 Internal Audit Staff Competency**

The study revealed that, internal audit staff competency was a significant factor that contribute to the effectiveness of internal audit ( $\beta=0.057$ , T-value= 2.865, p-value < 0.05). With regards to internal audit staff competency as a dimension in internal audit effectiveness, the study found that, majority of the respondents were not sure whether the internal auditors were proactive; majority of the respondents were not certain as to whether the professional knowledge of internal auditors was high; majority of the respondents agreed that, internal auditors were considered as professionals; majority of the respondents were not sure whether there was communication between internal and external auditors and auditees; majority of the respondents were not sure whether internal auditors attend educational seminars for continuous training; majority of the respondents were not certain as to whether internal auditors have enough education.

### **5.2.2 Management support for internal audit**

Moreover, management support for internal audit was not a significant factor that contribute to the effectiveness of internal audit ( $\beta=0.521$ , T-value=0.605, p-value > 0.05). With regards to management support for internal audit as a dimension in internal audit effectiveness, the study found that, majority of the respondents agreed that, internal audit was supported by management in terms of executing auditing duties and responsibilities; more of them also agreed that, with respect to internal audit, managements are included; majority of the respondents agreed that, internal audit delivers adequate and consistent results and recommendations that are very imperative to senior management; majority of the respondents agreed that, senior management sensibly and precisely respond to internal reports; majority of the respondents agreed that, internal audit department has wide and adequate space to successfully perform their auditing tasks; majority of the respondents agreed that, internal audit department has enough funds to properly and effectively carry on its duties and responsibilities.

### **5.2.3 Internal Audit Quality**

Again, the study found that, internal audit quality was not a significant factor that contribute to the effectiveness of the internal audit ( $\beta=0.022$ , T-value=0.027, p-value > 0.05). With regards to internal audit quality as a dimension in internal audit effectiveness, the study found that, the respondents agreed that, examination of reliability and integrity of information, checking working papers quality properly was done by internal auditors; most of the respondents agreed that external auditors use internal audit working papers and reports in conducting their audit; majority of the respondents agreed that, internal audit work was efficiently performed according to the audit plan; almost all of the respondents agreed that internal audit findings were correctly argued and justified;

majority of them agreed that, internal audit recommendations can be easily implemented; majority of the respondents agreed that, internal audit report was accurate.

#### **5.2.4 Internal Audit Organizational Setting**

The study found that, internal audit organisational setting was a significant factor that contributes to the effectiveness of internal audit ( $\beta=0.761$ , T-value=8.106, p-value < 0.05). With regards to internal audit organizational setting as a dimension in internal audit effectiveness, the study found that, the institution was a personal place just as the extended family; majority of the respondents agreed that, the organization was very dynamic and entrepreneurial; majority of the respondents agreed that, the organization was results oriented, competitive and achievement oriented; majority of the respondents were not sure whether the organization was very controlled and structured with official strategies; majority of the respondents were not certain as to whether the organization was by and large viewed to exemplify mentoring, facilitating or nurturing; majority of the respondents disagreed to the statement that, the organization was generally considered to exemplify no-nonsense aggressive results-oriented focus.

#### **5.2.5 Internal Audit Effectiveness**

The study found that, majority of the respondents disagreed to that internal audit was not executed in line with the IIA Standards; majority of the respondents were not sure whether internal audit develops a risk-based annual plan; majority of the respondents were not certain as to whether internal audit communicates timely the engagement results; majority of the respondents were not sure whether reliable and relevant recommendations are suggested by internal audit for improving the organizational processes; majority of the respondents agreed that, internal audit sets a follow-



up process to certify that, corrective actions have been well adopted; majority of the respondents were undecided on whether internal audit inspects the effectiveness and efficiency of activities and programs; majority of the respondents agreed that, internal audit reviews the reliability and integrity of financial information; majority of the respondents agreed that, internal audit evaluates the effectiveness of controls concerning the shielding of assets; majority of the respondents agreed that, internal audit make appraisal on whether strategies, processes, plans and guidelines are being comply with; majority of them as well consented that, internal audit enhances the effectiveness of internal control process; the respondents agreed that, internal audit was prompting the effectiveness of risk management process; further they agreed that, internal audit appraise and improves the effectiveness of governance process.

### **5.3 Conclusions**

This current study was conducted to investigate the factors that contribute to the effectiveness of internal audit in some selected public agencies in the Kumasi metropolitan areas of Ghana. The study revealed that, internal audit staff competency was a significant factor that contribute to the effectiveness of internal audit. Moreover, the study found that, internal audit quality was not a significant factor that contribute to the effectiveness of the internal audit. However, management support for internal audit was not a significant factor that contribute to the effectiveness of internal audit. Again, the study found that, internal audit organisational setting was a significant factor that contributes to the effectiveness of internal audit.

The study concludes that, majority of the respondents somewhat agreed that, the internal auditors were proactive, have enough education and also attend educational seminars for continuous

training. Also, the study agreed that, internal auditors were considered as professionals. The study concludes that, majority of the respondents agreed that, the senior management support internal audit to carry out their duties and roles and involved in the internal audit plan whereas the department of internal audit has sufficient budget and also large enough to successfully carry out their duties and responsibilities.

The study concludes that, majority of the respondents agreed that, the internal audit work was efficiently performed according to the audit plan, internal audit suggestions can be easily implemented and also the report of internal audit was accurate. The study concludes that, majority of the respondents agreed that their organization was a very personal place like an extended family and was also results oriented, competitive and achievement oriented. Moreover, majority of the respondents somewhat agreed that, organization was very controlled and structured with formal procedures and was generally considered to exemplify mentoring, facilitating or nurturing.

The study concludes that, majority of the respondents agreed that, their internal audit performs some activities such as, establishing a follow-up process to ensure that corrective actions have been effectively implemented, evaluating and improving the effectiveness of governance process, reviewing the reliability and integrity of financial information as well as evaluating the compliance with procedures, policies, plans and regulations. Moreover, majority of the respondents somewhat agreed that, internal audit carry out some duties such as, communicating timely the engagement results and also reviewing the effectiveness and efficiency of operations and programs.

## 5.4 Recommendations

Based on the findings and implications of the current study, the study found that, the internal auditors were proactive, have enough education and also attend educational seminars for continuous training. Therefore, the study suggested that, the public sectors should have competent internal auditors who are proactive, have enough education and also attend educational seminars for continuous training in order to enhance the effectiveness of the sector. Based on the implications and findings of the present study, the study showed that, the senior management support internal audit to carry out their duties and roles and involved in the internal audit plan, whereas the department of internal audit has sufficient budget and also large enough to successfully carry out their duties and responsibilities. Hence, the study suggested that, the public sector should employ senior management who support internal audit to carry out their duties and roles, and involved in the internal audit plan and also have a department with sufficient budget and also large enough to successfully carry out duties and responsibilities in order to improve the sector.

Based on the findings and implications of the current study, the study found that, the internal audit work was efficiently performed according to the audit plan, internal audit suggestions can be easily implemented and also the report of internal audit was accurate. Therefore, the study suggested that, the sector should employ internal auditors whose audit are accurate, whose audit are to be easily implemented and also whose audit are effectively carried out in line with the audit plan in order to improve the performance of the sector. Based on the findings and implications of the present study, the study found that, organization was a very personal place like an extended family and was also results oriented, competitive and achievement oriented. Hence, the study suggested that, the public



sector internal auditors should perform in a very personal place like an extended family and also results oriented, competitive and achievement-oriented environment in order to make work easily and faster.

Based on the findings and implications of the present study, the study found that, the internal audit performs some activities such as, establishing a follow-up process to ensure that corrective actions have been effectively implemented, evaluating and improving the effectiveness of governance process, reviewing the reliability and integrity of financial information as well as evaluating the compliance with procedures, policies, plans and regulations. Moreover, majority of the respondents somewhat agreed that internal audit carry out some duties such as, communicating timely the engagement results and also reviewing the effectiveness and efficiency of operations and programs. Thus, the study suggested that, the internal auditor of the public sectors should perform some activities such as, establishing a follow-up process to ensure that corrective actions have been effectively implemented, evaluating and improving the effectiveness of governance process, reviewing the reliability and integrity of financial information as well as evaluating the compliance with procedures, policies, plans and regulations in order to enhance the effectiveness and efficiency of the sector.

### **5.5 Areas for Future Research**

This current study was conducted to investigate the factors that contribute to the effectiveness of internal audit in some selected public agencies in the Kumasi metropolitan areas of Ghana. Specifically, the study focuses on the effect of internal audit quality on internal audit effectiveness; the effect of internal audit competency on internal audit effectiveness; the effect of management



support on internal audit effectiveness and effect of organisational setting on internal audit effectiveness. It is suggested that, future studies should focus on different location and use different research approach and strategy. Moreover, comparative analysis could be conducted between different public agencies to enrich decision making processes.



## REFERENCES

- Agordotse, F.R.A.N.C.I.S., 2019. Corporate Governance and Internal Audit: A Case Study of MMDAs in Volta Region of Ghana (Doctoral dissertation, University of Ghana).
- Ahmad, H. N. Othman, R. Othman, R. and Jusoff, K. Z. (2009). The effectiveness of internal audit in Malaysian public sector. *Journal of Modern Accounting and Auditing*, Vol. 5, No. 9, p. 53
- Ahmad, H., Othman, R., & Jusoff, K. (2009). The effectiveness of internal audit in Malaysian public sector. *Journal of Modern Accounting and Auditing*, 5(9), 53–62.
- Akpomi, M. E., & Amesi, J. (2014). Behavioural constraints on practices of auditing in Nigeria (BCPAN). *Educational Research and Review*, 4 (10), 465-469.
- Ali, A., Gloeck, J., Ali, A., Ahmi, A., & Sahdan, M. (2007). Internal audit in the state and local governments of Malaysia. *Southern African Journal of Accountability and Auditing Research*, 7, 25–57
- Ali, B. O. (2018). Factors influencing the effectiveness of internal audit on organisational performance. *International Journal of Advanced Engineering, Management and Science*, Vol. 4, Issue 4,
- Alkebsi, M., Aziz, A. K., (2017). Information Technology Usage, Top Management Support and Internal Audit Effectiveness. *Asian Journal of Accounting and Governance*, 8(2017), 123-132, <https://doi.org/10.17576/AJAG-2017-08SI-11>.
- Alqudah, H.M., Amran, N.A. and Hassan, H., 2019. Extrinsic Factors Influencing Internal Auditors' Effectiveness in Jordanian Public Sector. *Rev. Eur. Stud.*, 11, p.67.
- Al-Twaijry, A. M., Brierley, J. A., & G William, D. R. (2003). The development of internal audit in Saudi Arabia: an institutional theory perspective. *Critical Perspective on Accounting*, 14(5), 507-531.
- Al-Twaijry, A., Brierley, J., & Gwilliam, D. (2004). An examination of the relationship between internal and external audit in the Saudi Arabian corporate sector. *Managerial Auditing Journal*, 19(7), 929–944.
- Alzeban A, Gwilliam D. (2014). Factors affecting the internal audit effectiveness: A survey of the Saudi public sector. *J. Int. Account. Audit. Taxat.* 23:74-86.
- Alzeban, A. and Gwilliam, D. (2014). Factors affecting the internal audit effectiveness: A survey of the Saudi public sector. *Journal of International Accounting and Taxation*, 23, 74-86
- Alzeban, A., & Sawan, N. (2013). The role of internal audit function in the public sector context in Saudi Arabia. *African Journal of Business Management*, 7(6), 443–454.
- Arens, A. A., Elder, R. J., & Beasley, M. S. (2012). *Auditing and Assurance Services: an Intergrated Approach* (14th ed.). New Jersey: Pearson Prentice Hall.
- Badara, M. S. (2015). Empirical Evidence of Performance Measurement of Internal Audit Function on its Effectiveness. *Academic Journal of Management Science Research*, 1 (1), 1- 10.

- Badara, M. S. (2015). Empirical Evidence of Performance Measurement of Internal Audit Function on its Effectiveness. *Academic Journal of Management Science Research*, 1 (1), 1- 10.
- Badara, M. S., & Saidin, S. Z. (2013). The journey so far on internal audit effectiveness: A calling for expansion. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 3 (3), 240 -351. DOI: 10.6007/IJARAFMS/v3-i3/225.
- Badara, M. S., & Saidin, S. Z. (2014). Empirical evidence of antecedents of internal audit effectiveness from Nigerian perspective. *Middle-East Journal of Scientific Research*, 19(4), 460-471. DOI:10.5829/idosi.mejsr.2014.19.4.1783.
- Bahari, J. Sudarmanto, and Wekke, S. I., (2017). The effect of management support to effectiveness of internal audit for public universities. *Journal of Engineering and Applied Sciences*, 12(7) 1696-1700.
- Baharud-din, Z., Shokiyah, A. and Ibrahim, S. M., (2014). Factors that Contribute to the Effectiveness of Internal Audit in Public Sector. *Southern African Journal of Accountancy and Auditing Research*, 7, 126-132, DOI: 10.7763/IPEDR. 2014. V70. 24.
- Baharud-din, Z., Shokiyah, A., & Ibrahim, M.S. (2014). Factors that contribute to the effectiveness of internal audit in public sector. *Managerial Accounting Journal*, 70 (24), 126-132.
- Baltci, M., & Yilmaz, S. (2006). Keeping an eye on subnational governments: Internal control and audit at local levels. Washington, DC: World Bank Institute[Online] Retrieved from: <http://siteresources.worldbank.org/WBI/Resources/InternalControlandAuditatLocalLevel-FINAL.pdf>
- Barac K, Van Staden M (2009). The correlation between perceived internal audit quality and defined corporate governance soundness. *African Journal of Business Management*, 3(13): 946-958.
- Belay, Z. (2007). Effective Implementation of Internal Audit Function to Promote Good. Addis Ababa: Ethiopian Civil Service College Research, Publication.
- Brierley, J., El-Nafabi, H., & Gwilliam, D. (2001). The problems of establishing internal audit in the Sudanese public sector. *International of Journal Auditing*, 5(1), 73–87.
- Brierley, J., El-Nafabi, H., & Gwilliam, D. (2003). An examination of internal audit in the Sudanese public sector. *Research in Accounting in Emerging Economies*, 5, 177–195.
- Carcello, J., Hermanson, D., & Raghunandan, K. (2005). Changes in internal auditing during the time of the major US accounting scandals. *International Journal of Auditing*, 9(2), 117–127
- Chang, Y.T., Chen, H., Cheng, R.K. and Chi, W., 2019. The impact of internal audit attributes on the effectiveness of internal control over operations and compliance. *Journal of Contemporary Accounting & Economics*, 15(1), pp.1-19.
- Chenhall, R. H. (2003). Management control systems design within its organizational context: Findings from contingency based research and directions for the future. *Accounting Organizations and Society*, 28, 127–168.



- Cioban, N. A. Hlaciuc, E. and Zaiceanu, M. A. (2015). The impact and results of the internal audit activity exercised in the public sector in Romania. *Procedia Economics and Finance*, Vol. 32, pp. 394-399
- Coetzee, P. and Erasmus, J. L. (2017). What drives and measures public sector internal audit effectiveness? Dependent and independent variables. *International Journal of Auditing*, Volume 21, Issue 3,
- Cohen, A., and Sayag, G. (2010). The effectiveness of internal auditing: An empirical examination of its determinants in Israeli organizations. *Australian Accounting Review*, 20(3), 296–307.
- Dawuda, A., Ataribanam, S., Joseph, A. A., (2017). An Exploratory Study on Management Support Services and Its effects on the Quality Service Delivery of Internal Auditors in the Northern Ghana. *International Journal of Accounting Research*, 5(2), 1-4, DOI: 10.4172/2472-114X.1000170.
- Deribe, J. W. &Regasa, G. D. (2014). Factors determining internal audit quality: empirical evidence from Ethiopian commercial banks, *Research Journal of Finance and Accounting*, 5(23), 01-10
- Deribe, J. W. &Regasa, G. D. (2014). Factors determining internal audit quality: empirical evidence from Ethiopian commercial banks, *Research Journal of Finance and Accounting*, 5(23), 01-10
- Desai, V., Roberts, R.W., & Srivastava, R. (2006). An analytical model for external auditor evaluation of the internal audit function using belief functions. *The Accounting Review*. 68 (7), 1-43
- Drazin, R., & Van de Ven, A. H. (1985). Alternative forms of fit in contingency Theory. *Administrative Science Quarterly*, 30, 514-539.
- Dumitrescu, M. I.-B. (2004). Internal Audit in Banking Organizations. Internal Audit in Banking Organizations and on the Relation between Institutions Performing Banks, 16-19.
- Ebimobowei, A., &Binaebi, B. (2013). An Examination of the effectiveness of auditing of local government financial reports in Bayelsa State, Nigeria. *Current Research Journal of Social Sciences*, 5 (2) 45-53.
- Ege, M. S. (2015). Does internal audit function quality deter management misconduct? *The Accounting Review*, 90 (2), 495-527.
- Endaya, K. A., and Hanefah, M. M. (2013). Internal audit effectiveness: An approach proposition to develop the theoretical framework. *Research Journal of Finance and Accounting*. 4 (10), 92–102.
- Enofe, O. A. Mgbame, J. C. Osa-Erabor, E. V. and Ehiorobo, A. J. (2013). The role of internal audit in effective management in public sector. *Research Journal of Finance and Accounting*, Vol. 4, No. 6,
- Eulerich, M., & Ratzinger-Sakel, N. (2017). The effects of cultural dimension on the internal audit function: A worldwide comparison of internal audit characteristics. *Contemporary Accounting Research*, 29, 1-25.



- Farouk, A. M. & Hassan, U.S. (2014). Impact of audit quality and financial performance of quoted cement firms in Nigeria. *International Journal of Accounting and Taxation, American*, 2(2), 01-22
- General Audit Bureau (GAB). (2010). The GAB summary report. Alriyadh Newspaper. [Online]. Retrieved from: <http://www.alriyadh.com/2010/01/11/article488849.htm>
- George, D. Theofanis, K. and Konstantinos, A. (2015). Factors associated with internal audit effectiveness: Evidence from Greece. *Journal of Accounting and Taxation*, Vol. 7(7), pp. 113-122
- George, D., Theofanis, K., & Konstantinos, A. (2015). Factors associated with Internal Audit Effectiveness: Evidence from Greece. *Journal of Accounting and Taxation*, 7(7), 113-122.
- Gimzauskiene, E., & Klovienė, L. (2011). The content of performance measurement system according to environment of organization. *Economics and Management*, 16, 60-65.
- Gordon, L. A., Loeb, M. P., & Tseng, C. (2009). Enterprise risk management and firm performance: A contingency perspective. *J. Account. Public Policy*, 28, 301–327.
- Gwilliam, D., & El-Nafabi, H. (2002). The possibility of transition to public sector modern auditing techniques and procedures found in developing countries; the case of Sudan. *Accounting Research, The Saudi Accounting Association*, 6(2), 161–196.
- Hailemariam, S. (2014). Determinants of internal audit effectiveness in the public sector, case study in selected Ethiopian public sector offices. Jimma University
- Haldma, T., & Laats, K. (2002). Contingencies influencing the Management accounting practices of Estonian manufacturing companies. *Management Accounting Research*, 13, 379–400. Doi:10.1006/mare.2002.0197.
- Heo, J., & Han, I. (2003). Performance measure of information systems (IS) in evolving computing environments: An empirical investigation. *Information & Management*, 40, 243-256.
- IIA -The Institute of Internal Auditors. (2016). International Standards for the Professional Practice of Internal Auditing.
- IIA. (2010). Measuring internal audit effectiveness and efficiency. IPPF- Practice guide. The Institute of Internal Auditors
- IIA. (2011). *International Standards for the Professional Practice of Internal Auditing*. Retrieved may 18, 2018, from Available at: <http://www.theiia.org/guidance/standards-and-guidance/ippf/standards/full-standards/>>.
- Institute of Internal Auditors (IIA) (2009). International Professional Practice Framework. *Internal Control Weaknesses Managerial Auditing Journal*, 19(6): 56-76
- Institution of Internal Auditors (IIA) (2004). The standards for the professional practice of internal auditing. Altamonte Springs: The Institute of Internal Auditors, Research Foundation.
- Institution of Internal Auditors (IIA) (2012), International Standards for the Professional Practice of Internal Auditing, Standard 2120 Risk Management.
- International audit experts (2013), Format of Internal Audit Report. Retrieved 22 October 2017.
- Ismail, A.H., Merejok, N.M., Dangi, M.R.M. and Saad, S., 2020. does audit quality matters in Malaysian public sector auditing?. *Journal of Academia*, 7, pp.102-116.

- ISPPIA. (2010). International standards for the professional practice of internal auditing (Standards). The Institute of Internal Auditors.
- Jokipii, A. (2010). Determinants and consequences of internal control in firms: a contingency theory based analysis. *J ManagGov*, 14, 115–144. Doi 10.1007/s10997-009-9085-x.
- Kabaga, J. and Mulyungi, P. (2017). Determinants of internal audit effectiveness of public sector; A case study Rwanda Revenue authority. *International Journal of Science and Research*, Vol. 7, Issue 11, 617-620
- Kabuye, F., Nkundabanyanga, K. S., Opiso, J., and Nakabuye, Z., (2017). Internal audit organizational status, competencies, activities and fraud management in the financial services sector. *Managerial Auditing Journal*, 32(9), 924-944, <https://doi.org/10.1108/MAJ-09-2016-1452>.
- Kabuye, F., Nkundabanyanga, S.K., Opiso, J. and Nakabuye, Z. (2017). "Internal audit organisational status, competencies, activities and fraud management in the financial services sector". *Managerial Auditing Journal*, Vol. 32 No. 9, pp. 924-944. <https://doi.org/10.1108/MAJ-09-2016-1452>
- Kepes, S., Delery, J. & Gupta, N. (2009). Contingencies in the effects of pay range on organizational effectiveness. *Personnel Psychology*, 62, 497–531.
- Kim, K. K., & Umanath, N. S. (1993). Structure and perceived effectiveness of software development subunits: A task contingency analysis. *Journal of Management Information Systems*, 9 (3), 157-181
- Kinfu, J., & Bayou, E. (2009). *Auditing from Thinking to Doing: Introduction to Principle and Practices*. Addis Ababa: Kuraz International Publishing Enterprise.
- Kotb, A., Elbardan, H. and Halabi, H., 2020. Mapping of internal audit research: a post-Enron structured literature review. *Accounting, Auditing & Accountability Journal*.
- Krishnamoorthy, G. (2002). A multistage approach to external auditor's evaluation of the internal audit function. *Auditing: A Journal of Practice and Theory*, 21 (1), 95–122.
- Lenz, R. (2013). Insights into the effectiveness of internal audit: a multi-method and multi-perspective study, Dissertation at the Université catholique de Louvain - Louvain School of Management Research Institute (Belgium), 01|2013.
- Lenz, R., Sarens, G., & D'Silva, K. (2014). Probing the discriminatory power of characteristics of internal audit functions: Sorting the wheat from the chaff. *International Journal of Auditing*, 18(2), 126-138. <http://doi.org/10.1111/ijau.12017>
- Manoukian, J-G. (2016), Definitions and the Difference between Internal Audit & Internal Control. Available at <http://www.businessdictionary.com/definition/internal-audit.html>.
- Meggeneder, G. (2015). Driving success in a changing world: 10 imperatives for internal audit. *International Turkey Internal Audit Conference*, 1-37.
- Menza, S.K., Aga, A. and Jerene, W., 2019. Determinants of internal audit effectiveness (IAE) in the Ethiopian public enterprise, case of Southern region. *Journal of Resources Development and Management*, 52(1), pp.22-36.



- Mihret, A. G. (2011). The Contribution of Internal Audit Reengineering to its Effectiveness: An Ethiopian Public Enterprise Case Study,. Addis Ababa: Addis Ababa University.
- Mihret, D. G., & Yismaw, A. W. (2007). Internal audit effectiveness: an Ethiopian public sector case study. *Managerial Auditing Journal*, 22(5), 470-484.
- Mihret, D. G., James, K., & Mula, J. M. (2010). Antecedents and organizational performance implications of internal audit effectiveness: some propositions and research agenda. *Pacific Accounting Review*, 22(3), 224-252.
- Morgan, W. J. (2009). An assessment of the newly defined internal audit function. *Managerial Auditing Journal*, 17(3): 56-83.
- Morton, N. A., & Hu, Q. (2008). Implications of the fit between organizational structure and ERP: A structural contingency theory perspective. *International Journal of Information Management*, 28, 391-402
- Mpakaniye, J.P. (2017). The effect of internal audit on the performance of decentralized entities in Rwanda. Retrieved from <https://ssrn.com/abstract=3051075>.
- Mulugeta, S. (2008). Internal audit: Reporting relationship in Ethiopian public enterprises (M.Sc. dissertation). Ethiopia: Addis Ababa University [Online]. Retrieved from: <http://etd.aau.edu.et/dspace/bitstream/123456789/1966/1/Samuel%20Mulugeta.pdf>
- Muneer, S., Basheer, M.F., Shabbir, R. and Zeb, A., Does Information Technology (IT) Expedite the Internal Audit System? Determinants of Internal Audit Effectiveness: Evidence from Pakistani Banking Industry. *Dialogue*, 14(2), p.145.
- Musah, A., Gapketor, D. E., and Anokye, K. F., (2018). Determinants of Internal Audit Effectiveness in State-Owned Enterprises (SOEs) in Ghana. *Journal of Accounting and Management*, 8(1), 52-68.
- Nagy, A., & Cenker, W. (2002). An assessment of a newly defined internal audit functions. *Managerial Auditing Journal*, 17(3), 130-137.
- Nerantzidis, M., Pazarskis, M., Drogalas, G. and Galanis, S., 2020. Internal auditing in the public sector: a systematic literature review and future research agenda. *Journal of Public Budgeting, Accounting & Financial Management*.
- Nicolaou, A. I. (2000). A contingency model of perceived effectiveness in accounting information systems: Organizational coordination and control effects. *International Journal of Accounting Information Systems*, 1, 91-105.
- Ninlaphay, S., & Ngamtampong, N. (2013). Internal control effectiveness and stakeholder credibility performance: Evidence from corporate governance awarded firms in Thailand. *Journal of International Business & Economics*, 13 (3) 173-186.
- Nordin, C. V. G. (2003). Internal audit finding: Its place in public finance management. New York
- Novisi, A.W., 2019. Effectiveness of the Role of Internal Audit in the Ghana Police Service (Doctoral dissertation, University of Ghana).
- Onumah J., M. and Krah, R., Y. (2012). Barriers and Catalysts to Effective Internal Audit in the Ghanaian Public Sector. *Research in Accounting in Emerging Economies*, Volume 12A, 177-207. 1479-3563/doi:10.1108/S1479-3563 (2012) 000012A012

- Postula, M., Irodenko, O. and Dubel, P., 2020. Internal Audit as a Tool to Improve the Efficiency of Public Service. *European Research Studies*, 23(3), pp.699-715.
- Prawit, D., Smith, J., & Wood, D. (2010). Internal Audit Function Quality and Earnings Management. *The Accounting Review*, 84(4), 1255-1280.
- Protivi Knowledge leader (2005), Internal auditing around the world, Profiles of Internal Audit Functions at Leading International Companies, Protivi Knowledge leader, accessible online la [www.knowledgeleader.com](http://www.knowledgeleader.com) June, Vol. I
- Quaye, B.L., 2019. Internal Audit Effectiveness within the Public Tertiary Institutions of Ghana: The Influence of Audit and Organizational Characteristics (Doctoral dissertation, University Of Ghana).Abushaiba, I. A, &Zainuddin, Y. (2012). Performance measurement system design, competitive capability, and performance consequences - A conceptual like. *International Journal of Business and Social Science*, 3 (11), 184-193.
- Roussy, M., Barbe, O., Raimbault, S. (2020). Internal audit: from effectiveness to organizational significance. *Managerial Auditing Journal*, 35(2), 322-342, <https://doi.org/10.1108/MAJ-01-2019-2162>.
- Sampson, A. (2014). Effectiveness of internal audit in metropolitan, municipal and district assemblies in the Ashanti region of Ghana. University of Cape Coast
- Schoonhoven, C. B. (1981). Problems with contingency theory: Testing assumptions hidden within the Language of Contingency "Theory. *Administrative Science Quarterly*, 26, 351-377.
- Schyf, D. (2000). Obstacles in establishing and operating a public sector internal auditing function in a developing country: The South African experience. *Meditari Accountancy Research*, 8, 145–181.
- Sekaran, U. and Bougie, R. (2009). *Research Methods for Business: A Skill-Building Approach*. 5th Edition, John Wiley and Sons Inc., New York
- Shamki, D., &Alhajri, T. A. (2017). Factors Influence Internal Audit Effectiveness. *International Journal of Business and Management*, 12(10), 143-154. <http://doi.org/10.5539/ijbm.v12n10p143>
- Spraakman, G. (1997). Transaction cost economics: A theory of internal audit. *Managerial Auditing Journal*, 17(7), 323–330.
- Sudsomboon, S., &Ussahawanitchakit, P. (2009). Professional audit competencies: the effects On Thai's CPAS audit quality, reputation, and success. *Review of Business Research*, 9 (3), 66–85.
- Tandon, B., Sudharsanam, S., &Sundharabahu, S. (2010). *A Handbook of Practical Auditing* (14th ed. ed.). New Delhi: S. Chand & Company Ltd.
- Turetken, O., Jethefer, S. and Ozkan, B., 2019. Internal audit effectiveness: operationalization and influencing factors. *Managerial Auditing Journal*, 35(2), pp.238-271.
- Valanciene, L., &Gimzauskiene, E. (2009). Dimensions of performance measurement system in changes research. *Engineering Economics* (4), 41-48.



- Van Gansberghe, C. (2005). Internal auditing in the public sector: A consultative forum in Nairobi, Kenya, shores up best practices for government audit professionals in developing nations. *Internal Auditor*, 62(4), 69–73.
- Weldu, F. (2017). Assessment of the effectiveness of internal auditing performance: A case study of selected branches of Dashen Bank in Mekelle. Micro-Link Information Technology and Business College
- Wodajo, A. (2019). Factors affecting internal audit effectiveness: The case of Ethiopian insurance companies. Masters' Thesis, Addis Ababa University
- Wolderupheal, G. (1998). Ethiopia-looking to the future. In *Internal Auditor*.
- Wood, David A. (2012). "Corporate Managers' Reliance on Internal Auditor Recommendations". *Auditing: A Journal of Practice & Theory*, 31 (2).
- Wood, M. (2009). A contingency theory perspective on the risk management control system within Birmingham City Council. *Management Accounting Research*, 20, 69–81.
- Wright, A., & Wright, S. (1997). The effect of industry experience on hypothesis generation and audit planning decisions. *Electronic* Retrieved from [http://papers.ssrn.com/paper.taf?abstract\\_id=42913](http://papers.ssrn.com/paper.taf?abstract_id=42913).
- Wynne, B. (2001). Creating public alienation: Expert cultures of risk and ethics on GMOs. *Science as Culture*
- Xiangdong, W. (1997). Development trends and future prospects of internal auditing. *Managerial Auditing Journal*, 12(4/5), 200–204.

## APPENDIX

### SURVEY QUESTIONNAIRE

This questionnaire is aimed to explore the factors that contribute to the effectiveness of internal audit in some selected public agencies in Ghana. The data will be used for academic purpose only and it will be treated with confidentiality it deserves. The respondents are highly encouraged to respond to the statements in this questionnaire in the most truthful and objected way possible. Your participation in facilitating this study will be highly appreciated.

## Part A: Background Information

1. Gender
  - a. Male ☐
  - b. Female ☐
2. Age
  - a. 18-30 years ☐
  - b. 31-40 years ☐
  - c. 41-50 years ☐
  - d. >50 years ☐
3. Level of Education
  - a. Diploma/HND ☐
  - b. Bachelor degree ☐
  - c. Masters' degree ☐
  - d. PhD ☐
  - e. Others ☐
4. Job designation
  - a. Director ☐
  - b. Assistant Director ☐
  - c. Planning Officer ☐
  - d. Internal Auditor ☐
  - e. Accountant ☐
  - f. Finance Officer ☐
  - g. Others specify.....
5. How many years have you worked with the institution?
  - a. 0-3 years ☐
  - b. 4-7 years ☐
  - c. 7-10 years ☐
  - d. 10 years and above ☐

## Part B: Internal Audit Staff Competency

Indicate your level of agreement with the following statements that relate to Internal Audit Staff Competency. Use the 5-point Likert scale where 1= strongly disagree, 2= disagree, 3= neutral, 4=agree, 5=strongly agree,

Items	1	2	3	4	5
1. Internal auditors are proactive					
2. The professional knowledge of internal auditors is high					
3. Internal auditors are considered as professionals					

4. There is communication between internal and external auditors and auditees					
5. Internal auditors attend educational seminars for continuous training					
6. Internal auditors have adequate education					

### Part C: Management Support for Internal Auditing

Indicate your level of agreement with the following statements that relate to Management Support for Internal Auditing? Use the 5-point Likert scale where 1= strongly disagree, 2= disagree, 3= neutral, 4=agree, 5=strongly agree,

Items	1	2	3	4	5
1. Senior management supports internal audit to perform its duties and responsibilities					
2. Senior management are involved in the internal audit plan					
3. Internal audit provides senior management with sufficient, reliable and relevant reports about the work they perform and recommendations made					
4. The response to internal audit reports by the senior management is reasonable					
5. Internal audit department is large enough to successfully carry out its duties and responsibilities					
6. Internal audit department has sufficient budget to successfully carry out its duties and responsibilities					

### Part D: Internal Audit Quality

Indicate your level of agreement with the following statements that relate to Quality of Internal Audit. Use the 5-point Likert scale where 1= strongly disagree, 2= disagree, 3= neutral, 4=agree, 5=strongly agree,

Items	1	2	3	4	5
1. Examination of reliability and integrity of information, checking working papers quality properly done by internal auditors.					
2. External auditors use internal audit working papers and reports in conducting their audit.					

3. Internal audit work was efficiently performed according to the audit plan.					
4. Internal audit findings are correctly argued and justified.					
5. Internal audit recommendations can be easily implemented.					
6. Internal audit report is accurate (clear and logical).					

### Part E: Internal Auditing Organizational Setting

Indicate your level of agreement with the following statements that relate to internal audit organizational setting. Use the 5-point Likert scale where 1= strongly disagree, 2= disagree, 3= neutral, 4=agree, 5=strongly agree,

Items	1	2	3	4	5
1. The organization is a very personal place like an extended family					
2. The organization is very dynamic and entrepreneurial. People take risks.					
3. The organization is results oriented, competitive and achievement oriented					
4. The organization is very controlled and structured with formal procedures					
5. The organization is generally considered to exemplify mentoring, facilitating or nurturing					
6. The organization is generally considered to exemplify no-nonsense aggressive results-oriented Focus					

### Section F: Internal Auditing Effectiveness

What is your level of agreement with the following statements that relate to Internal Effectiveness. Use the 5-point Likert scale where 1= strongly disagree, 2= disagree, 3=neutral, 4=agree, 5= strongly agree.

Statements	1	2	3	4	5	6	7
1. Internal audit is performed in accordance with the IIA Standards							
2. Internal audit develops a risk-based annual plan							
3. Internal audit communicates timely the engagement results							



4. Internal audit makes appropriate recommendations for improving the organizational processes								
5. Internal audit establishes a follow-up process to ensure that corrective actions have been effectively implemented								
6. Internal audit reviews the effectiveness and efficiency of operations and programs								
7. Internal audit reviews the reliability and integrity of financial information								
8. Internal audit evaluates the effectiveness of controls regarding the safeguarding of assets								
9. Internal audit evaluates the compliance with procedures, policies, plans and regulations								
10. Internal audit improves the effectiveness of internal control process								
11. Internal audit improves the effectiveness of risk management process								
12. Internal audit evaluates and improves the effectiveness of governance process								

**THANK YOU FOR YOUR PARTICIPTION**

