DETERMINANTS OF INTERNAL AUDIT EFFECTIVENESS IN KANO STATE MINISTRIES, DEPARTMENTS AND AGENCIES (MDAs)

BY

Nura *BADAMASI*

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A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, AHMADU BELLO UNIVERSITY ZARIA, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF SCIENCE (M.Sc.) DEGREE IN ACCOUNTING AND FINANCE DEPARTMENT OF ACCOUNTING FACULTY OF ADMINISTRATION AHMADU BELLO UNIVERSITY, ZARIA NIGERIA.

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DECLARATION

I declare that the work in this dissertation entitled "Determinants of Internal Audit Effectiveness in Kano State Ministries, Departments and Agencies (MDAs)"has been performed by me in the Department of Accounting**.** The information derived from the literatures has been duly acknowledged in the text and a list of references provided. No part of this dissertation was previously presented for another degree or diploma at this or any other Institution.

Nura Badamasi **----------** **----------**
M.Sc./Admin/30206/2012-2013 **Signature** **Date**

CERTIFICATION

This is to certify that this dissertation entitled "Determinants of Internal Audit Effectiveness in Kano State Ministries, Departments and Agencies (MDAs)" by Nura *BADAMASI* (M.Sc./ADMIN/30206/2012-2013) meets the regulations governing the award of Master of Science (M.Sc.) Degree in Accounting and Finance of Ahmadu Bello University, Zaria. Hence, it is approved for its contribution to knowledge and literary presentation.

Dr. Hassan Ibrahim ---------- ----------
(Chairman, Supervisory Committee) Signature Date

Dr. M. S. Tijjani ---------- ----------
(Member, Supervisory Committee) Signature Date

Dr. Salisu Abubakar ---------- ----------
(Head of Department) Signature Date

Prof. Sadiq Z. Abubakar ---------- ---------- (Dean Postgraduate School) Signature Date

DEDICATION

This research work is dedicated to Almighty Allah (S.W.T) and the best of mankind, Prophet Muhammad (S.A.W)

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In the name of Allah (SWT), the Beneficent, the most Merciful. All praises is due to Allah (S.W.T), the creator of the universe. May the peace and benedictions of Allah be upon his noble Messenger, the best of mankind, Prophet Muhammad (S.A.W)

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ABSTRACT

Effective internal audit is an important and integral function of organizations that helps in achieving its objectives and protecting organization's assets. Nonetheless, internal audit effectiveness has received little attention in the literature, especially in the context of developing countries such as Nigeria. This study examined the determinants of internal audit effectiveness in Kano state Ministries, Departments and Agencies. The study used Krejcie and Morgan to arrive at a sample size of 132 using the chief internal auditor and his deputy in each of the sampled Ministries, Departments and Agencies. The questionnaires prepared based on 5 Likert type scale and were distributed among the respondents. The data were analyzed using OLS multiple regression technique. The result revealed that independence of internal audit department has positive and significant effect on internal audit effectiveness of Kano State Ministries, Departments and Agencies. Management support for internal audit has positive and significant determinants on internal audit effectiveness of the Ministries, Departments and Agencies. However, competence of internal audit staff, size of internal audit department and relationship between internal and external auditors were also found to have insignificant influence on internal audit effectiveness. The study concluded that independence of internal audit department and management support for internal audit are the main factors that explained internal audit effectiveness of Kano state Ministries, Departments and Agencies. Therefore, regulatory authorities (Head of Service, Secretary to state government and ministry of finance) should work towards ensuring competent personnel in internal audit departments because the low level of professional qualifications and rapid rotation of employees to and from the internal audit department results in internal auditors (excluding directors) having low levels of experience in auditing. Based on the findings, the study recommended that the regulatory authorities should ensure effective monitoring of competence of internal audit staff and increase management support for internal audit of the state Ministries, Departments and Agencies.

CHAPTER ONE
INTRODUCTION

1.1 Background to the study

There is a general consensus among policy makers, academician and professionals all around the continent on the desire for governments to put greater effort to prudent management of public financial resources. The reason is recognized, government makes the biggest sole business entity and their nature of spending through its various ministries, agencies and departments arouse lots of economic functions. Sagacious management of financial resources in the public sector has become even more important in the wake of the economic recession that many nations are currently facing. Achieving public financial prudence requires the system of financial control, including accounting control, to be sound and effective.

Sound financial control helps an organization to minimize risks to which it is exposed to. It also encourages decision makers' confidence in the reliability of financial information, it reduces the likelihood of fraud and error in financial information and also helps to ensure that all transactions are properly authorized and complied with applicable regulations, policies, procedures and laws. The main actors who make the financial and accounting systems of government work are the accountants and internal auditors. The public sector accountant has the responsibility of bringing systematic arrangements which assist regulators in the work of the services of its institutions while the internal auditor has among other duties, the complementary work to examine if management actually provides the services effectively. The internal auditor has to further assure himself that the accounts presented have been prepared in accordance with statutory and constitutional requirements, laws, regulations and proper accounting practice have been carried out in their compilation.

The increasing size and the complexity of public sector in recent years, particularly after the global financial crisis of 2007, have correspondingly increased the relevance of internal audit. As a relevant constituent of both corporate and good governance, internal audit ensures effective and sound services to the public at giveaway price that gives the organization a profit for future

sustainable operations (Institute of Internal Auditors – IIA, 2011). It also represents a major determinant in enacting the quality of the internal control system in public sectors. This underscores why the effectiveness of internal audit is considered not only critical but necessary for the improvement of public sector funds management.

Internal audit effectiveness points to the quality of accomplishmentand describes whether internal audit function is accomplishing in a satisfactory manner. The literature has documented five complementary dimensions of internal audit effectiveness. The dimensions, which have become popular in most internal audit effectiveness study are: competence of internal audit staff, management support for internal audit,size of internal audit department, relationship between internal and external auditors and independence of internal audit staff (Al-Tawaijry, 2004; Institute of Internal Audit (IIA), 2006; Mihret&Woldeyohanmis, 2008, &Mulugeta, 2008).

Competence of staff is an important constituent in effective internal audit functions (IIA, 2006). Competence has been known as indices of reliance on the internal auditor's work by external auditors (Al-Tawaijry, 2004). It is seen in terms of staff professional, educational, continuous development and experience in the field of internal audit. The nexus between staff competence and effectiveness of internal audit work has been well documented in the literature. In addition, internal audit department needs to be provided with enough resources, materials as well as human, to be able to perform its responsibilities appropriately. The resources are what represent the size of the internal audit department. Prior studies have suggested that the effectiveness of internal audit may be higher when there is capable and sufficient number of staff in the department. Previous studies suggested a gap between adequate number of staff and capacity of an internal audit department in accomplishing its duties effectively (Mihret&Woldeyohanmis, 2008, Mulugeta, 2008).

In any government establishment which is finance by any of the three tiers of government namely, Federal, State and Local government, such organizations known as public sector organizations engage in business activities that are not profit oriented but rather service oriented.

They provided basic amenities like good roads, good education, health care facilities, electricity and water for the benefit and usage of the public. There is therefore a need for sound internal control system, internal audit and even a statutory audit for proper fair and judicious use of the funds that are allocated to them.

In Nigeria, there have been persistent comments in the press and electronic media about brazen acts of fraud, misappropriation and embezzlement of public funds in the public sector organizations. According to Olowokere (2001) as well as Unegbu and Kida (2011), improper recording of accounts have accounted for the spate of irregularities and some acts usually perpetrated by staff and management. The problem, which to a large extent has been linked to weak internal control system, is said to have permeated the three tiers of government across Nigeria. Despite the outcry, there are still no national corporate governance guidelines that inform public sector on how to control their internal audit departments. In irony of the developed countries, there are no foreign internal audit professional bodies such as the IIA in Nigeria (Alhsadi, 2007). Public Sectors in Nigeria are therefore left to establish their own guidelines on the practice of internal audit.

In a bid to addressing the problem, in April 2010, the Kano State Government probed Local Government chairmen on how funds from the Federation's excess crude oil account were expended. Upon discoveries, about 10 Local Government chairmen were invited by the Economic and Financial Crimes Commission (EFCC), for allegedly misappropriation of over ₦900 million excess crude oil funds allocated to the various Local Government councils (Sunday Trust, February, 2010: 9). Even with that discovery and the attribution of the problem to lack of sound and adequate internal control mechanism, internal auditors do not have formalize professionalism, moral principles and standards for professional competent in the state. Moreover, there are no professed examination requirements as well as professional training programs specified for the persons becoming internal auditor in Nigeria.

Considering strategic economic importance of Kano state given its population size and number of MDAs, a study of internal audit effectiveness and the factors that affect it in the state is deemed desirable. This research therefore focused on the determinants of internal audit effectiveness in Kano state MDAs.

1.2 Statement of the Problem

Internal audit function is an integrated part of the finance structure of public sector organizations. A usual grief in public sector is that internal audit units is too overstaffed and under resourced generally to be fully effective. Another complaint often put forward relates to inadequate knowledge of development in internal auditing that will lead to competence of staff. It is also believed that, especially in developing nations, internal auditors, being employees in public sector do not have the liberal to exercise the unbiased and independent manner of an auditor as this is not the case in the private sector (IIA, 2011).

Management support is envisaged in supporting the process of auditing by achieving the indispensable transport, assets, if required, furnishing training, educating auditors with new technology and procedures, budgeting funds for certification and other facilities that facilitate the internal auditing works (Goodwin, 2004). It is believed that management support have a far-fetched outcome on internal audit effectiveness on public sector. Mihret and Yismaw (2007), Mihret and Woldeyohannis (2008) and Mihret (2009) all shows that management support comprises the answers to internal audit finding and the devoir to improve internal audit which has significance influence on internal audit effectiveness. It is in view of this that Institute of Internal Audit (2011), emphasized that internal auditors should engage senior management support of the board to perform their work without hindrance and free from interference.

The relationship between the externaland internal auditor also reflected a crucial and relevant factor that affects internal audit effectiveness. The work of Arena and Jeppesen (2010) shows that the relationship between the internal auditor and external auditor becomes intellectual area, where

external audit, as the superior professional, controls the knowledge-based of internal auditing but allows internal auditors to practice internal audit as the profession provided. This as well have impacts on the value of internal audit which can improve the organizations through lesser external audit fees (Al-Twaijry, Brierley&Gwilliam, 2004; Haron, Chambers, Ramsi& Ismail, 2004; Zain, Subramaniam& Stewart, 2006; Ho& Hutchinson, 2010; Prawitt, Smith & Wood 2012;). While internal auditors contribution to work, carried out by external auditors (Burnaby & Klein, 2000), external auditors as well as assisting in the development of internal auditors by working as a recruitment market and selection of internal auditors (Al-Twaijry et al., 2004; Arena, Arnaboldi&Azzone, 2006). This means that the extent and nature of relationship between internal auditor and external auditors would go a long way in determining internal audit effectiveness of Kano State MDAs.

Moreover, the independence of internal audit staff is an important drive-in of the auditor role and an element of internal audit effectiveness (Chartered Institute of Public Finance and Accountancy (CIPFA), 2003). Although, emphasis has been on external audit independence, professionalize establishment and standard-setters have placed heavy weight on internal audit of private and public sector.

However, value-adding role of the internal audit presumes effective and sound internal audit (Mihret et al., 2010). In view of this, studies have been conducted in different jurisdictions to confirm the presumption. These studies which are mainly foreign, documented mixed and inconclusive results due to largely environmental factors and methodological differences, most of the studies were carried out in Asia and Europe and documented qualitative method, but this study is carried out in Nigeria and documented quantitative method. The studies have mostly focused on internal auditor independence (Christopher, Sarens& Leung, 2009; Stewart &Subramaniam, 2010) while few others dealt with internal audit effectiveness (Al-Twaijry, Brierley&Gwilliam, 2003; Mihret&Woldeyohannis, 2008; Yee, Sujan, James & Leung 2008; Mihretet al., 2010). However,the

effectiveness of internal audit mostly concentrated on whether external auditors utilize or rely on the work of internal auditors (Cohen &Sayag, 2010). The few that departed from that approach covered two to three dimensions of internal audit effectiveness instead of the five components documented in the literature as given by ISPPIA established by IIA. As these studies were conducted in countries other than Nigeria with recognised cultural and environmental dissimilarity as well as unlikeness findings, it is necessary for similar study to be carried out in Nigeria, Kano State in particular.

In addition, the fact that the studies referred to have documented mixed and inconclusive findings, the need for another study using data from Nigeria becomes obvious to bridge the gap. For example, studies such as those of Coram, Ferguson and Moroney (2008) and Mihret et al., (2010) and Yismaw (2007) and Yee et al. (2008) shows that independence of internal audit possess a positive relationship with internal audit effectiveness while Daruish (2004) documented negative association between independence of internal audit effectiveness. Furthermore, with reference to the poor rating of Nigeria by the Transparency International in terms of corruption indices (2011), a study on effectiveness of internal audit becomes necessary and imperative.

In Nigeria, there have been few empirical researches regarding internal audit effectiveness (Unegbu& Kida, 2011, Tijjani 2003, Danbatta 2004, Badara&Saidin 2013, Owolabi&Dadu 2011, Ogbada, Orok&Esang 2009, Nuruddeen 2009, Oshisami 1992, Daniel 1999, Adams 2002, Sokunbi 2011, Amadikwa 2011, &Awoyemi 1989). Most of the researches available are exploratory and conceptual in nature with neither data nor analysis that will lead to recommendations. The few empirical studies concentrated on either auditors' independence or relationship between external audit and internal audit and size of internal audit. Few of the studies covered management support and staff competence despite the strong relationship that exists between these factors and internal audit effectiveness.

In Kano state, to the researcher's knowledge, this is the first known effort to carry out an empirical study on determinants of internal audit effectiveness in the State’s MDAs. In view of the

foregoing, this research study attempts to fill the research gap identified in the literature by extending its analysis to cover all the five dimensions of internal effectiveness documented in the literature given by ISPPIA established by IIA.

1.3 Research Questions

The study attempts to provide answers to the following research questions:

i. To What extent does the staff competence of internal audit a determinant of internal audit effectiveness in Kano State Ministries, Departments and Agencies (MDAs)?

ii. To What extent does the size of internal audit a determinant of internal audit effectiveness in Kano State Ministries, Departments and Agencies (MDAs)?

iii. To What extent does the management support for internal audit a determinant of internal audit effectiveness in Kano State Ministries, Departments and Agencies (MDAs)?

iv. To what extent does the relationship between internal and external auditors a determinant of internal audit effectiveness in Kano State Ministries, Departments and Agencies (MDAs)?

v. To What extent does the independence of internal audit a determinant of internal audit effectiveness in Kano State Ministries, Departments and Agencies (MDAs)?

1.4 Objectives of the study

The overall objective of this study is to determine internal audit effectiveness in Kano State Ministries, Departments and Agencies (MDAs). The specific objectives are to:

i. Examine the determinant of internal audit staff competence on internal audit effectiveness in Kano State Ministries, Departments and Agencies (MDAs)

ii. Assess the determinant of internal audit size on internal audit effectiveness in Kano State Ministries, Departments on Agencies (MDAs)

iii. Examine the determinant relationship between management support for internal audit on internal audit effectiveness in Kano State Ministries, Departments and Agencies (MDAs)

iv. Assess how the relationship between internal and external auditor affect internal audit effectiveness in Kano State Ministries, Departments and Agencies (MDAs)

v. Examine the effect of independence of internal audit on internal audit effectiveness in Kano State Ministries, Departments and Agencies (MDAs)

1.5 Statement of Hypotheses

To achieve the objectives of the study, the following hypotheses are formulated for testing:

$H0_1$: Staff competence of internal audit is not a significant determinant of internal audit effectiveness in Kano State Ministries, Departments and Agencies (MDAs)

$H0_2$: Size of internal audit is not a significant determinant of internal audit effectiveness in Kano State Ministries, Departments and Agencies (MDAs)

$H0_3$: Management support for internal audit is not a significant determinant of internal audit effectiveness in Kano State Ministries, Departments and Agencies (MDAs)

$H0_4$: Relationship between internal and external auditors is not a significant determinant of internal audit effectiveness in Kano State Ministries, Departments and Agencies (MDAs)

$H0_5$: Independence of internal audit is not a significant determinant of internal audit effectiveness in Kano State Ministries, Departments and Agencies (MDAs).

1.6 Scope of the study

The study focused on determinants of internal audit effectiveness in Kano state Ministries, Departments and Agencies (MDAs). Kano state MDAs were chosen considering the strategic economic importance of Kano state given its population size and number of MDAs. Internal audit effectiveness being the construct is operationalized by the following dimensions: Competence of internal audit staff, Size of internal audit, Management Support for internal audit department, Relationship between internal and external auditors and Independence of internal audit. The variables were chosen considering the fact that they are strictly having diverse characteristics and

this is because the effectiveness of internal audit department depends on the contribution of the stakeholders involved such as management, internal auditors, external auditors, government and other professional and regulatory bodies. The study used data from primary source only. The data, which are quantitative in nature, extracted from respondents through self-administered questionnaire to comply with the stated research objectives, as responses were coded using five likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). 132 structured questionnaires were distributed to the sampled MDAs chief and deputy chief internal auditors out of which 129 were returned and used for our analysis.

1.7 Significance of the study

The findingof this study is theoretically and practically beneficial to stakeholders such as policymakers, legislators, managers of public funds, academic researchers and investors. The research suggests ways and mechanisms of improving internal audit accountability and transparency of operations in Kano state MDAs based on the empirical results of each of the variables of the study. The finding for each of the different dimensions of internal audit effectiveness points to the area(s) where policymakers, legislators and managers of public fund need to either consolidate or strengthen in order to have sound internal system.

In addition, this study would give aid to stakeholders to realise their role and responsibility in facilitating independence and effective internal audit in the State's MDAs. They may use the findings and recommendations of this research to improve staff competence, review upward or downward the size of internal audit unit, increase management support and enhance relationship between internal and external auditors. The study also offers managers of public funds, policymakers and investors the opportunity to know and understand perceptions of internal auditors in the State's MDAs regarding each of the factors that affect internal audit effectiveness. This means the study will serve as a policy input for both administrators and managers of public entities in the State.

Theoretically, the dearth of research in the areaway of internal audit effectiveness in Nigeria, particularly Kano state makes the study a reference material for future researchers. The study provides empirical evidence on internal audit effectiveness in Kano state MDAs. This means future researchers could build on the findings of this research work in conducting similar studies within the Nigeria's framework using similar or different methodology.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter covers critique of both conceptual and empirical literature related to the study. The chapter discusses the concept of internal audit and internal audit effectiveness. It is as well discusses the constructs of internal audit effectiveness and reviews related to the empirical studies. This chapter concludes with explanation of the theory that underpins the study.

2.2 Conceptual Framework

In this section, concepts used in the study were discussed extensively so as to enable the readers understand the meaning and value the application of the study. The concepts highlighted and explained in this section are the internal audit, internal audit effectiveness, measurement of internal audit effectiveness and dimensions of internal audit effectiveness.

2.2.1 Concept of Internal Audit

Institute of Internal Audit (2009) has made effort to define internal audit as an objective, independent, consulting and guaranty function designate with the belief to add-value to organization's activities. It's as well helps an organization attain its objectives of introducing a disciplined, systematize ways to evaluate sound and effective risk management, control and governance processes.

More so, an evaluation of European internal audit literature by Allegrini, Paape, Melville and Sarens (2006) and a study of the Asia Pacific internal audit literatures by Cooper, Leung and Wong (2006) confirmed paradigmatic shift. McNamee and McNamee (1995) also elucidatesthe internal audit duty has shifted through three mainstages. The first revolution of internal auditing started in the 1940s. In this first phase of the duty of internal audit based precisely on checking transaction and records. In the 1940s, the internal auditor was an associate in achieving business processes as well as creating higher profitability by further working with management to ensure policies and procedures

were strictly adhered to. In the 1990s, internal audit became a value adding service to organizations including helping organizations in the minimization of risk by using sophisticated risk modeling, computerize assisted auditing, basing on quality management including audit process and statistical sampling.

According to Jurchescu (2010), see internal audit as an independent and objective functional activities which facilitates management with the aid of ensuring effective management of public sector income and expenditure, ensuring proper activities in public sector organizations, helps the public sector to achieve their objective through systematic and methodical approaches, evaluate and improves the effectiveness of internal control system and risk management. The above definition is concerned with the functions of internal auditors in public sector, mostly on the protection of resources wastages, the prudent utilization of revenue and expenditure on the evaluation of the effectiveness of risk management, internal control system and management processes.

According to Unegbu and kida (2011), an aspect of the internal control system provided by management of an organization to foster adequate acquiescing with the given policies and conduct to achieve the aims. From all the above definitions, internal audit can be seen as independent appraisal established within the organisation with the aim of reviewing the effectiveness of the activities of an organization, evaluation of risk management, ensuring compliance with laid down rules and regulations and internal control system of the organization. However, the internal auditor is a workerwithin internal audit sector who is delegated with the responsibility of carrying out internal audit functions.

Cohen and Sayag, (2010) viewed internal audit as an unavailing control mechanize in both private and public sectarianism. Thus, is the proper period to look at the matter of internal audit (Sumritsakun&Ussahawanitchakit, 2009), particularly at local government level to assist towards their advancement. Therefore, there is need for the internal audit to be effective to ensure improvement in the Ministries, Departments and Agencies (MDAs) (Unegbu& Kida, 2011).

Danbatta (2004) concludes that a well examined internal audit research is known to reveal errors, strengths or shortcomings of internal control system of the public sector firm. Base on his conclusion, there is significant positive relationship between internal audit and internal control but the conclusion revealed a mixed finding.

From the foregoing discussions, the literatures indicates the internal audit function has changed from traditional way to contemptuous way, internal audit becomes a crucial portion of organizational constituents as value adding service (Yee et al., 2008; Rupsys&Boguslauskas 2007; Al-Twaijry et al., 2003; Arena &Azzone 2009; Bou-Raad 2000; Coram, Ferguson &Moroney 2008; Enyue 1997; Goodwin 2004; Sarens& De Beelde 2006;). Internal auditor is reflected as the watch dog of the board through their outstanding position. For instance, they are independent service and report straightly to the board of directors or shareholders, and have the zeal to useall information in the organization. Thus, shareholders will notice the advantage of having a physically vigorous internal audit function which will equip value addition to the other indispensable of corporate governance (De Smet& Mention 2010). All this, in practice, internal auditors may be a problem and researchers to show serious withholdings in respect of the effectiveness of the internal auditor's duties (Van Peursem 2004). Thus, for internal audit to be seen as a value addition service to public sector firms,must to be effective (Al-Twaijry et al., 2003; Mihret et al., 2010).

This study adopts the definition suggested by Yee et al. (2008). This is premised on the fact that the definition is all-encompassing, hence, chosen as a guide to this study.

2.2.2 Concept of Internal Audit Effectiveness (IAE)

Effectiveness has been defined by many researchers, for instance Arena and Azzone (2009) defined effectiveness as the ability to obtain results that are compatible with stated objective, while, Dittenhofer (2001) defined effectiveness as the ability toward the accomplishment of objectives. In the same vein, a program can be seen as effective if its outcome goes along with its objectives (Ahmad, Othman, &Jusoff, 2009; Mihret et al., 2010). However, it is in curiosity that audit

effectiveness is the outcome of the auditor's sphere of actions, duties, professional practices and responsibilities through a high commitment with audit standards, policies procedures, goals and objectives, (Ussahawanitchakit&Intakhan, 2011).

In the same context, Shoommuangpak and Ussahawanitchakit (2009) found that audit effectiveness refers to reach audit's objectives by gathering of adequate and suitable audit evidence in order to give judgement regarding the financial statements compliance with generally accepted accounting principles. Similarly, Karapetrovic and Willborn, (2000), Beckmerhagen, Berg, Karapetrovic and Willborn, (2004); also considered audit effectiveness as the joint probability that the audit will be reliable and valuable.

Therefore, going by the above definitions of effectiveness and audit effectiveness, it is comprehended that audit effectiveness or internal audit effectiveness means the same thing because they all have central target which is the ability of attaining established objectives. In addition, IIA (2010) defined internal audit effectiveness as the degree (including quality) to which instituted objectives are achieved. Also internal audit effectiveness means the extent to which an internal audit department meets its purposes (Mihret&Yismaw, 2007). While Mizrahi and Ness-Weisman (2007) gave their own definition which is in proportion with the ability of the internal auditor interposition in prevention and detection of deficiencies and they finally defined internal audit effectiveness as the number and scope of deficiencies detected following the auditing process. Thus, from the above definition, this study defined audit effectiveness or internal audit effectiveness as the ability of the auditors either internal or external to attain established goals and objectives within the organization with a view to comply with internal audit practices by IIA and ISPPIA in a way of characteristics of internal audit staff, extent of internal audit work, an appropriate environment, and support of top management to determine internal audit effectiveness.

In their study, Mihret et al., (2010) stated the value-adding transformation of internal audit assumes that internal audit is effective. Thus, internal audit effectiveness should be researched to

assess its value-adding chances. There are two main reasons why it is relevant to examine internal audit effectiveness. One is that, it shows the quality of function and can explain whether or not the internal audit is accomplishing in a satisfactory manner. The second is that the findings can be used as a motivator for an individual or corporate organization to increase their performance. Mizrahi and Ness-Weisma (2007) presumes that, in total, there are two crucial indices for attaining managerial accountability in the policy-making process, namely, auditing and evaluation. However, as explained earlier, to date very few studies have been conducted on internal audit effectiveness, and despite the total undercurrent in association to an internal audit paradigmatic shift, researches has provided mixed and inconclusive findings on internal audit effectiveness (Mihret et al., 2010), and has assessed internal audit effectiveness differently. This study adopts the definition given by Mihret et al., (2010) in the view of the fact that it is more comprehensive.

2.2.3 Measurement of Internal Audit Effectiveness

A key aspect in seeking to add to understanding and knowledge of the drivers of internal audit transformation and effectiveness, is the manner in which effectiveness is measured, or perhaps more accurately. Previous studies, in both the private and public sector, have used a variety of approaches and measurement techniques. Some studies have focused primarily on compliance with ISPPIA as for example in those of: Fadzil et al. 2005, Xiangdong, 1997; Spraakman, 1997. Thus, such method has been criticized for focusing on the execution of ways which it does not take into account on the results, in terms of the requirements of the principal stakeholders (Lampe & Sutton, 1994). Studies which have considered internal audit effectiveness by reference to the function's ability to satisfy the wants of auditor's include those of: Cohen and Savag, 2010, Barrett, 1986; Ziegenfuss, 2000; Frigo, 2002. These studies seek to measure indirectly the auditor's satisfaction with the duties of internal audit whereas other researches have used a direct measure, in particular or the level to which internal audit recommendations are signed and acted upon (Mihret and Yismaw, 2007; Sawyer, 1995; Van Gansberghe, 2005; Arena and Azzone 2009). Other studies, for example

(Dittenhofer, 2001) argued that stronger measures in terms of the ability of the internal audit is to evaluate the achievement of auditors' goals and objectives and to suggest remedies which these goals and objectives not be realized.

More so, this notable demands an assessment of those dimensions of business forms which internal audit observes and has the ability to encourage, and this extends to include corporation performance. Nexus to this are those studies which rely on the ability of the internal audit function to positively influence the quality of public and private sectors (Gramling et al., 2004; Sarens, 2009), which by implication have the ability to ensure that risk management and internal control are effective. Limited studies have found to use economic criteria although it has been proven that necessary skills is only one aspect of effectiveness andthe cost of attaining quality needs to be taken into account (Cashell&Aldhizer, 2002) and that studies which do not consider the relationship between quality and cost are only giving a partial account of effectiveness in the wider sense. Whilst there is undisputedly some force to this argument the difficulty of collecting reliable data as to internal audit costs has meant that few studies have in fact gone down this route, (Although auditors are likely to impute an implicit notable cost-effectiveness when evaluating quality of internal audit).

Based on the review of the previous literature and consideration of the relative pros and cons of the measures used by the earlier researchers it was concluded to employ a measure of internal audit effectiveness by reference to the quality of the function as perceived by auditors. This overall measure was itself aggregating auditor's responses to questionnaire questions relating to aspects of the internal audit function including: improving the productivity of the organization; ascertaining the consistency of the results with established objectives and goals, ability to plan; implementation of internal audit recommendations; evaluating and improving risk management; evaluating internal control systems and making recommendations for improvement. Specific economic data was not collected separately but within the questions which was one relating to the economical and efficient use of resources.

2.2.4 Dimensions of Internal Audit Effectiveness

The literature has documented five dimensions of internal audit effectiveness, which are discussed hereunder.

2.2.4.1 Competence of Internal Audit Staff

Internal auditors is suppose and attain a broad knowledge of skills, for instance, skills of general business, communication, interpersonal, and informational technology and technical knowledge of auditing (Mihret&Woldeyohannis 2008; Hass, Abdolmohammadi& Burnaby 2006). According to ISPPIA (1210-Proficiency), internal auditors must acquire or obtain the knowledge, proficiencies and other skills required to carry out their responsibilities (Institute of Internal Auditors 2011d). This viewpoint is supported in the work of Flesher and Zanzig (2000) who proved that internal audit departments should have internal auditors who have required skills to enable them perform auditing in areas beyond financial undertaking.

For internal audit to be fully effective, internal auditors is supposed to acquire competence to perform their audit work satisfactorily (Burnaby et al. 2009). This viewpoint is supported in the work of Al-Twaijry et al., (2003) who suggested that staffing of internal audit units and the management of its staff is vitreous to the effective operations and that unless they acquire the necessary competencies, the zeal of internal auditors may be discouraged. Mihret et al., (2010) also supported this viewpoint by stating that technical competence and continuous training and development are considered relevance for effective internal audit. Their viewpoint failed to consider the experience of internal auditor in the field of internal audit rather than just acquiring the requisite knowledge and professionalism.

According to Bierstaker, Burnaby and Thibodeau (2001) reviewed that technology is manifesting a major impact on audit planning. For instance, computers are used to compute client specific internal control templates to detect weakness and strengths in a system. However, when internal auditors have professionalize skills such as enough knowledge, professional membership,

certification and training in electronic data processing systems, it refers that they are competent to admonish the quality of the internal control system (Fadzil,Haron&Jantan 2005). Thus, over the years, many programs were created in many countries (USA, UK, Canada, etc.) to increase the quality of internal audit professionalism. For instance, the IIA has provided relevant professionalize courses for internal auditors with an authority that an individual must possess B.Sc. degree, pass the professionalize examinations, obtain experience in the auditing field, be pledged to IIA's Code of Ethics of the profession, and end the required continuing professionalize development programs and skills. However, other professional settings such as the American Institute of Certified Accountants (AICPA) offered professional development courses in internal auditing field. However, colleges and universities have developed courses in internal auditing to be offered on restricted basis. Furthermore, some organizations have sought to in-house courses for their internal auditors. Internal auditors also need certain proficiency to uphold good relationship with audits.

2.2.4.2 Size of Internal Audit Department

Size of internal audit is yet another important determinant of internal audit effectiveness. Al-Twaijry et al., (2003) stated that the size of internal audit is a significant tool of internal audit effectiveness with a viewpoint which is advocated by ISPPIA. In total, audit unit should cover all other systems and activities in all units and locations to every parts the organization. The International Federation of Accountants (2007) stated that the size of internal audit unit varies heavily and depends on the size and structure of the organization and the needs of management. Nonetheless, internal audit functions may include reviewing and safe guiding internal control systems, and recommending a way out, investigation of financial and functioning information. Internal audit activities includes verifying the means used to classify, measure, identify and report financial and functioning information, and explicit inquiry into individual separation including collective testing of transactions, procedures, balances and evaluation of the economy, efficiency or effectiveness of the operating functions, as well as non-financial performances of an organization,

and evaluation of compliance with laws, regulations and other external needs, and with organization's policymakers and directives and other internal needs (The International Federation of Accountants 2007).

The size of internal audit unit is as well expanding to know whether the systems made available by management are efficient and effective and whether the work audited has complied with the adequate requirements (Fadzil, Haron&Jantan 2005). The IIA's Standards for Professional Practice of Internal Auditing (2120-Risk Management) stated that the internal audit activities must review risk exposures relating to firm's operations, good governance and information systems regarding the accountability and integrity of financial and functional information, effectiveness of operations, safeguarding of plans, procedures, laws, regulations, assets, and evaluating the systems available to ensure compliance with those policies, and contracts which is examine to have a significant impact on the operations and reports, and should examine whether the organization is conforming (Institute of Internal Auditors 2011d).

Internal audit as well needs to carry out appraisal of present systems and engaged in the growth of new systems before implementation. The internal audit units should help management in the reviewing of new technology, mostly in developing and under developed countries as the auditors support in technical areas would arguably more paramount than areas where the business function remains relatively constant (Mihret&Woldeyohannis 2008). The IIA's Standards for Professional Practice of Internal Auditing (2130-Control) stated that internal auditors should have comprehension of information system of risks and the internal audit activities must determine whether the informational technology governance of the organization sustains and supports the organization's strategies and objectives (Institute of Internal Auditors 2011d).

Therefore, arguably, the internal audit function has undergone drastic changes that have enlarged its scope in ways that allow it to make more contributions to the organization it works. It has evolved from traditional roles of internal audit. Traditionalize Protective Services in terms of

financial transactions to become a restraint which function by examining and evaluating the adequacy and effectiveness of other controls in order to provide the management of an organization with information analyses and recommendations to help in attaining its objectives. Under this larger size, internal audit help management in areas of operational audits, management of risk, and traditional financial and compliance audits (Al-Twaijry et al., 2003; Albercht et al. 1988). Stated that internal audit may be perceived as effective in both the consulting role and traditional financial audit role. This view is supported by literature (e.g. Al-Twaijry et al., 2003; Arena et al., 2006; Institute of Internal Auditors 2011c).

2.2.4.3 Management Support for Internal Audit

Management support is yet another important determinant that intensifies internal audit effectiveness. For the internal audit department to be fully effective, the support from top management is definitely important. Boyle (1993) finds that the support of internal audit by top management was identified in his conducted interviews as an important validation of the reality that internal auditors should carry out their work effectively. Mihret and Yismaw (2007) and Mihret and Woldeyohannis's (2008) in their studies in Ethiopia states that management support to internal audit is known as a determinant of internal audit effectiveness. According to Mihret (2009), management support to internal audit is known as one of the tools that bode well for a good internal audit unit profile. In addition, Zain, Subramaniam and Stewart (2006) indicated that with the adequate level and kind of resources directed to the internal audit function, organizations should subsequently make used of the benefits in terms of the internal audit activities aiding and supporting the external audit. Albercht et al. (1988) stated that there are three indices that internal audit directors could develop to magnify internal audit effectiveness, namely: 1) top management support; 2) adequate corporate environment; 3) high competent internal audit staff. The researchers also highlighted the support of top management to the internal audit units may be the most important factor that magnify internal audit effectiveness. Thus, Sarens and De Beelde (2006) found that the total acceptance and

appreciation of internal audit within the firm is strongly relying on the support it receives from senior management, they also found indications that this support is related to the maturity of the internal audit function. Therefore, internal audit actively seeks this support by communicating and promoting its possibility to add value.

The IIA's Standards for Professional Practice of Internal Auditing (1110-Organizational Independence) proves that internal auditors should the support of senior management and of the board of director so that they can attain the cooperation of audits and carry out their work free from interface (Institute of Internal Auditors 2011d). According to this statement and based on the above literature, there is no doubt that top management support plays a critical role in enhancing internal audit independence. Furthermore, for effective work performance, internal auditors should have support for top management and the board of directors. Management support is also important for an internal audit department to monitor management risk. Walker, Shenkir and Barton (2002) stated that firm's risk management may not succeed without robust support in the organization from top management because internal auditors have primary duties related to risk identification and assessment and they are likely to interact with top management on risk management implementation issues.

Furthermore, senior management support is relevant to the accomplishment of a variety of initiatives. Top management support is shown by the motivation provided by top management to internal auditors. This may take the pattern of establishing education and training education programs for their internal auditors, appropriate budget for the internal audit unit, bonuses and salary for internal auditors and acceptance and fulfillment of internal audit recommendations. One form of management support lies with senior management establishing education and training education programs for their internal auditors. The internal auditor should continue education and training programs within the organization in order to carry out an effective audit. On the job education programs should reinforce those areas where formal training and education are weak, as well as

introducing internal auditors to have a specialty which might be useful in her/his specific organization. Mihret et al., (2010) indicated that technical skills and continuous training are considered essential for effective internal audit. Engle (1999) explains that maximizing internal auditor competence should be the most priority of an organization. Thus, organizations should direct their efforts towards periodically updating the knowledge and proficiencies of internal auditors.

Another type of top management support lies upon financial support in terms of bonuses and compensation. It could be argued that management support in terms of this financial stimulation for the internal auditor staff incites staff to work in this area and be fully effective. In this connection, for example, Muller-Peters, Kern and Geibler (2001), cited in Göritz (2004), recruited and selected members for a commercial market research panel through personal interviews and the authors instituted that 52% of interviewees who were offered the incentive had revealed an interest in becoming panel lists and subsequently signed up.

The level of top management acceptance and fulfillment of internal audit recommendations is as well vital in attaining internal audit effectiveness. After issuance of the top management, the internal audit report, and board of directors should guarantee that adequate arrangements are made to determine whether action has been taken on internal audit recommendations or that management has understood and assumed the risk of inaction. Burns, Greenspan and Hartwell (1994) found that management is likely to comply with internal auditor recommendations and that an entity's internal auditors may enjoy a certain vital things if top management is externally stimulated to follow the recommendations of the internal audit unit. Without such motivation, the internal auditor may not be in a situation to influence management when management's actions are inadequate. It shows that management's acceptance of the internal auditors recommendations may stimulate internal audit effectiveness. However, the internal audit department may not be able to adequately and effectively attain their work without the appropriate support of the body it is responsible to, whereby this

support is moral through the appropriate authorities vested on it or physically through the availability of all its needs.

2.2.4.4 Relationship between Internal and External Auditors

The relationship between the internal and external auditors helps the shareholder and board of directors through its audit committee to effectively supervise the audit process and the financial reporting statement (Braiotta& Marsh 1992). The board of directors, executive managers, the audit committees, internal auditors, external auditors and other stakeholders are the essential of effectiveness in organizations. Thus, effective public sector should be retained based on a strong relationship between external auditors and the internal audit function. The International Federation of Accountants (2007) shows the need for coordinating the efforts of both internal and external auditors.

The significance of the relationship between internal audit and external audit is confirmed by the International Federation of Accountants (2007) as follows: 1) the duties of the internal audit activities is examined by management or those charged with good governance. The purpose of management and those responsible with governance differ from those of the external auditor whose total objective is to attain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to report on the financial statements in accordance with the auditor's findings. The objectives of the internal audit function vary according to the requirements of management or those charged with governance. 2) The internal audit work may achieve its objectives in a way similar to that of the external auditor. Accordingly, certain aspects of the internal audit function may be useful to the external auditor in determining the nature, timing and extent of audit procedures to be performed. 3) In spite of its degree of autonomy and objectivity, the internal audit function is not independent of management or the entity. The external auditor has sole duties for the audit opinion revealed and, accordingly, that responsibility is not be limited by the external auditor's use of the work of the internal audit function. Mihret (2010)

study put forward the importance of internal and external audit nexus, Arena and Azzone (2009) and Goodwin (2004) stated that a positive interrelationship between internal audit and external audit is very vital for both aspects.

Thus, there is hesitation that neither party can do without the other and the work and progress of one party is important to the success of the other party. However, the interrelationship between the internal and external auditors should contribute to internal audit effectiveness. However, a research of external auditors in Saudi Arabia (Al-Twaijry, Brierley&Gwilliam 2004) indicated relationship with the internal audit work is dependent on many factors, including the extent to which internal auditors are believed to be trustworthy professionals who know the external auditors work, the extent to which internal audit staff are perceived as good professionals, and the extent to which internal auditors are independent.

2.2.4.5 Independence of Internal Audit Department

The concept of independence is totally perceived the ability of the auditor to be objective in his/her evaluation and appraisal and not to be under unnecessary pressure from any party to the level that this could bias his/her belief. The IIA's Standards for Professional Practice of Internal Auditing defined independence of internal auditors as: The freedom from situations that menace objectivity or the display of objectivity. Also the threats to quality must be managed at the level of the auditor, functional, appointment, and organizational extents‘(Institute of Internal Auditors 2011b).

Independence of internal audit has been shown by the IIA, the American Institute of Certified Public Accountants (AICPA) and others as vital to the viability of the internal audit functions. The IIA has issued many attributed standards under which the IIA scrutinize the issue of independence in the ISPPIA, more especially, the Standard 1100 Independence and Objectivity. This standard states the internal audit function should be independent in carrying out their work.

A number of researches examined internal auditor's independence, this has been predominated in the area of external audit (Gendron&Bedard 2006). All so, limited previousresearch

has focused on internal auditor independence. In the limited studies dealing with internal audit effectiveness, they have converged on the external audit and whether the external auditors use the work of the internal auditors (Cohen &Sayag 2010). However, recently, there has been more attention to issues associated with the independence of internal audit (Christopher, Sarens& Leung 2009; Stewart &Subramaniam 2010). This growth in research, as explained earlier, relates to the way the role of internal audit is gradually being transformed from primarily being concerned with checking the propriety of transactions and records and a systems evaluation approach, to becoming a value-adding service with a broader scope of activities, including assisting organizations in the management of risk. Subsequently, the role of internal audit has developed to a pre-eminent position of advising the board of directors, although tensions remain between this consulting role and the need for independence (Mihret et al., 2010).

Internal audit services derive their important and credibility from the crucial assumptions of independence of self and independence in appearance (Stewart &Subramaniam 2010). Vanasco, Skousenand Santagato (1996) highlighted that without independence the desired results of internal auditing cannot be realized. Thus, the position of internal audit in an organization is imbedded, it is a corporate unit that should have a high degree of autonomy and independence so as to perform its activities in an accepted manner (Arena &Azzone 2009), and the 0independence of internal audit regulations is a prerequisite to having a wide range of internal audit functions (Institute of Internal Auditors 2011d).

2.3 Review of Empirical Studies

This section evaluated related empirical studies conducted in separate jurisdictions to place the study in an ideal context and ease the identification of gaps from previous researches.

2.3.1 Competence of Internal Audit Staff and Internal Audit Effectiveness

Alzeban and Gwilliam (2014) examined factors affecting internal audit effectiveness, the study used questionnaire of 79 Saudi Arabia public sector firms which adopted multiple regression to

analyze the data. The study revealed that, there is positive significance between competence of internal audit staff and internal audit effectiveness at 1% level of significance. The finding shows that it can be translated beyond the particular Saudi Milieu in which they have been established. These issues and area are open to further research inquiry and investigation in both developing and developed countries and, to some extent, in the public and private sector. The results of the study cannot be relied upon because it covers only public sector and the technique of sample selection is too ambiguous.

Dominic and Nonna (2011) inquired in to the internal audit function: Perceptions of internal audit roles, effectiveness and reviews. The study used questionnaire and Qualitative approach in analyzing the data collected. The study revealed that perception of effectiveness in this section has to do with the related structure, status, and relationships of the internal audit function, as long as human resources, in terms of staffing and competencies. The qualitative findings revealed a positive relationship between competence of internal audit and internal audit effectiveness. One of the shortcomings of the study relates to the number of factors used, which is insufficient for such a study or research.

In a similar development, Libby and Frederick (1990) examined the experience as an important tool in facilitating auditor's knowledge in an organization. The study used a regression model to analyse the data of the sampled companies. The study revealed that competence of internal audit staff is affected by internal audit effectiveness. The Ordinary Least Square technique of data analysis was used in the study, is limited on the basis of the facts that it does not need factor analysis and related robustness test.

Badara and Saidin (2013) assessed the impact of effective internal control system on the internal audit effectiveness at local government level in Nigeria. The study sampled the 774 local government councils in Nigeria using the following factors as indices (Internal Control System, Control environment, Risk management, Control activities, information and

communicationMonitoring).The paper finalized that effective internal control system can influence the effectiveness of internal auditors at local level. The findings of the study may not have external validity as it may not be applicable to other developed countries of the world.

Bonner and Lewis (1990) investigated the relationship between staff competence and audit effectiveness using questionnaire. The findings revealed that there is negative association between competence of internal audit and internal audit effectiveness. The study also stated that year of experience is known as an indicator of auditor's knowledge and expertise. Internal auditors need a wide range of competencies to achieve satisfactory performance in a given hierarchical positions within internal audit units. The study failed to prove if paper qualification is the only yardstick for competence of internal audit mostly in a less education society like Africa that is one of the reasons for a study of this nature in Kano state Ministries, Departments and Agencies (MDAs).

Furthermore, the work of Mihret and Yismaw (2007) examined through case study of one organization who studied internal audit effectiveness in public sector higher educational institutions in Ethiopia (University). The study attempted to introduce a new aspect of evaluating internal audit effectiveness by using a model which consisted of four potentials factors which may impact on internal audit effectiveness, namely, internal audit quality, management support, organizational setting and audit attributes. The results indicated that internal audit is ineffective in terms of skills, planning, recommendations and shortcomings to the scope of work. Furthermore, the study revealed that audit quality and management support are the two most important factors influencing internal audit effectiveness respectively. These researchers also suggested ways for future research to fully understand internal audit effectiveness in the public sector by using other variables affecting internal audit effectiveness. Their study also focused lonely on one public sector higher educational institutions in Ethiopia. The study finalized that internal audit effectiveness is highly influenced by internal audit quality and management support. In contrary, organizational setting and auditor's

attributes do not have strong impact on internal audit effectiveness. The study did not consider one of the most important elements of internal audit which is independence of internal audit unit.

2.3.2 Size of internal Audit and Internal Audit Effectiveness

Alzeban and Gwilliam (2014) examined factors affecting internal audit effectiveness, the studies used questionnaire and multiple regressions to evaluate data sampled from 79 public sector organization in Saudi Arabia. The study used five major indicators for the study are competence of internal audit department, size of internal audit department, management support for internal audit, relationship between internal and external auditors. The result of the findings shows a positive significance between size of internal audit department and internal audit effectiveness which is at 1% significance level. The study revealed that most of the companies evaluate and quantify the performance and effectiveness of their business activities. The study shows a positive relationship between all the constructs used in the study which may be faulty.

De Smet et al., (2010) assessed that the scope of the auditor's activities and responsibilities are expanding and currently includes a risk assessment which must show assurance regarding the effectiveness of the organization's internal controls. The authors also indicated that as auditors gained an understanding of management's strategies, business processes and controls to mitigate business risks, it will become more likely that they will use this knowledge to allow them to evaluate internal control strengths and weaknesses. The study failed to indicate the sample of the study and the techniques of data collection as well as the research design used in the study.

Furthermore, Mihret et al., (2010) attempted to provide a theoretical foundation for the study of internal audit effectiveness through coming up with propositions and suggesting a research agenda on the antecedents and organizational performance implications of internal audit effectiveness. The study investigated that internal audit effectiveness is influenced by the dynamics prevailing in an internal audit setting. Also the association between organizational performance and with internal audit‘s extent of compliance with the ISPPIA could be provided to assess internal audit

effectiveness. It appears reasonable to look at effective internal audit which is characterized to a larger extent by a larger size of services than a de-emphasis on financial and compliance audits.The scope used by the study is myopic, the result could have been better if the study make use of more respondents than the one used.

Ahmad et al. (2009) investigated the effectiveness of internal audit in Malaysian public sector. The study revealed that, lack of internal audit staff is ranked as the main problem faced by internal auditors in conducting an effective internal auditing. The sample used is too myopic to represent the entire population, if more sample should be used, the result would have been better, looking at the current economic situation.

Badara and Saidin (2013) investigated antecedents of internal audit effectiveness focusing on the moderating the effect of effective audit committee at local government level in Nigeria. The study is an evaluated literature using effective internal control system, risk management, audit experience, co-operation between internal and external auditors performance measurement. The paper finalized that the variables should be validated empirically. Their findings are not as straightforward as expected and left some potential for suspicion concerning the relationship between other forms of independence of internal audit. More explicitly the study actually succeeded in establishing a positive relationship between only one variable of the study which is effective audit committee with no prove of significant relationship between independence and internal audit effectiveness.

Aguolu (2009) assessed designing an effective internal audit group using literature review ways. The study revealed that many factors highlighted can be responsible to internal audit ineffectiveness, but the usual cause of this shortcoming was in the structure and orientation of internal audit group. The study revealed that, there is no relationship between size of internal audit and internal audit effectiveness. The study is a conceptual paper, even though a review of empirical

studies gave insight into the concept under the study, it is not and cannot be an alternative for actual field work.

2.3.3 Management support for Internal Audit and Internal Audit Effectiveness

Yee et al. (2008) examined Singaporean internal audit and its relationship with management support. The study surveyed 83 senior, middle and junior managers of 25 Singaporean organizations to identify their perceptions regarding the role and internal audit effectiveness. The result of this study concludes that Singaporean senior and junior managers consider internal audit as a business partnership role. However, mid-level managers showed internal auditing activities as watchdog activities. The study finalized that internal audit is influenced when relationships between auditors and audit are established based on a cooperative and participative way, as opposed to as independent and prescriptive appraisal approach. The methodology may be faulty as the interview used may be accompanied with biasness.

Ussahawanitchakit and Intakhan (2011) investigated Audit Professionalism, Audit Independence and Audit Effectiveness of CPAs in Thailand. Is an empirical research which obtained data through questionnaire used in the following factors Audit professionalism and audit independence, Audit experience and ethical orientation of the internal auditors, the study concludes that both audit professionalism and audit independence have a good positive impact on audit effectiveness but audit experience and ethical orientation do not moderate the relationship. The result would have been more robust if variable like size of internal audit unit were employed.

Cohen and Sayag (2010) examined and used questionnaires to survey 292 Israeli organizations which explored the determinants of internal audit effectiveness by developing a model of its determinants. The model consists of six potential factors which may impact on internal audit effectiveness, namely, the sector of the organization, professional proficiency of internal auditors, quality of audit work, organizational independence; career and advancement; and top management support. They stated that internal audit effectiveness is an important concept rarely examined in

theacademic literature. In the limited studies dealing with internal audit effectiveness, mostly there was a concentration on the external auditor and whether the external auditor utilizes the work of the internal auditor. The results of the study suggested that there are very high correlations between perceptions of top management support and internal audit effectiveness. Furthermore, their study emphasized the importance of perceived top management support for the effectiveness of internal audit and the results indicates positive relationships between greater quality of the auditing work, and greater organizational independence and internal audit effectiveness. However, no significant correlations were found between the variables of professional proficiency, career advancement and auditing effectiveness. The authors indicated that future research should look at organizational independence and the quality of the auditing work as determinants to dimensions of internal audit effectiveness. The study revealed that, the competence of internal audit staff is not significant in determining internal audit effectiveness. The results of the study would have been better if a relationship between internal and external auditors was employed for the study to show how it would correlate with internal audit effectiveness.

Dawudu (2010) assessed the effect of management on internal audit effectiveness using questionnaires and structured interviews on a sampled 9 branch heads of Ghana audit service in the Northern Region of Ghana. The study revealed that, the internal auditors received less management support and the audit committee in the assemblies is not effective. It is also evident that majority of the internal auditors did not have requisite skills and experience. The measurement of internal audit effectiveness used in the study was criticized for their inability to incorporate independence of internal audit as an important element of internal audit.

Beckmerhagen et al. (2004) examined the effectiveness of quality management system audits. The study revealed that the auditor should plan the audit work, identification of goal, scope of the audit, relevance available resources, and possible problems. General methods or standards for proper audit performance should be clarified. The evaluation of audit effectiveness must be based on facts.

The study was conducted in 2004 which I believe might have been over taken by time if it should be carried out again looking at changes that might have occurred within the time frame.

2.3.4 Relationship between Internal and External Auditor and Internal Audit Effectiveness

The study of Goodwin (2004) contrasts the role of internal audit in the public and private sectors in Australia and New Zealand using 120 organizations. The author highlighted that while there is no requirement for private sectors in Australia and New Zealand to establish an internal audit department, the Australian Stock Exchange (ASX) encourages large companies to do so. This study made a comparison between the role of internal audit in the public sector and those in the private sector in Australia and New Zealand. The results suggested that internal auditors in the public sector are less likely to report to the chief of financial affairs than those in the private sector. The study finalized that after all, the two sectors have often outsourced internal audit work.It shows public sector organizations are more likely to use an external auditor for these services. Also, there appears to be no significant difference between internal auditors in the two sectors in interaction with external auditors. The study failed to go further to examine how the study of this nature will work in African Countries with diverse cultural and commercial activities. The finding of the study is fantastic except it might not be the case in all sectors and countries with similar characteristics.

Mizrahi and Ness-Weisman (2007) examined the effectiveness of auditing in local municipalities using analytic hierarchy process in Israel. The study found that, the effectiveness of an internal audit in Israeli municipalities is low. The weakness of this study is that the domain, the method of data analysis and sources of data were not displayed.

Kuta (2008) investigated the effectiveness of auditing for adequate accountability in Nigeria's Local Governments. This study is an empirical research work which used questionnaires to evaluate and analyze the data on a sampled 774 local government of Nigeria. The study found out that, auditing in Nigeria Local Governments is ineffective. Factors responsible for the ineffectiveness has to do with, lack of independence of the internal auditors, preparation of an audit programmed,

insufficient resources, understaffing and that due recognition is not accorded to auditor's report, which foster the relationship between internal and external auditors and internal audit effectiveness.

Mihret et al. (2010) discussed antecedents and organizational performance implications of internal audit effectiveness using literature review. The study showed that propositions and a research agenda are provided on potential antecedents of internal audit effectiveness and its possible association with company effectiveness. The sample used are too few to represent the overall population, if more sample were used, the results would have been better looking at the current economic situation.

Intakhan and Ussahawanitchakit (2010) assessed the roles of audit experience and ethical reasoning in audit professionalism and audit effectiveness through a moderator of stakeholder pressure in Thailand. The study is an empirical research work which used factors like audit experience and ethical reasoning as independent variables, mediating effect of audit professionalism and moderating effect of stakeholder pressure to analyze the data. The result of the study shows that all the variables under studied are found to be significant with internal audit effectiveness.

The work of Arena and Jeppesen (2010) examined the relationship between internal audit and external auditing is becoming one of the intellectual jurisdictions, where external auditing as the superior profession controls the knowledge based of internal auditing, but allows internal auditors to practice internal audit as they please. The evaluated literatures focused on qualitative research approach, the findings would have been more robust if researches consider quantitative approach and a better sampling technique is applied, this study used quantitative approach and better sampling techniques. Most of the previous studies used experimental or surveyed method, or mixed (survey and archival), this study used an open methodology to breach the gap earlier identified in previous studies.

New Delhi (2006) assessed on improving the effectiveness of internal audit in government of India. The Seminar paper revealed that internal audit in Union's Ministries and Departments is a

nebulous area, which in today's economic scenario requires immediate attention for more functional clarity. The study is a conceptual study, even though, a reviewed of empirical studies provides insight into the concept under study, it is not and cannot be an alternative for actual field work. Belay (2007) examined an Effective Implementation of Internal Audit Function to Promote Good Governance in the Public Sector. The study is an Empirical research work which revealed that the existing internal audit function in the public sector has less advantageous involvement to assess the effectiveness of governance structure due to lack of resources, poor leadership for internal audit function, absence of adequate frame work to measure internal audit function performance.

Cooper, Leung and Wong (2006) critiqued many studies internal audit in Asia Pacific region. The study finalized that, the role of the internal audit function is changing from a more financially-oriented role to becoming a relevance tool in controls and risk assessment throughout the last two decades. Also, the internal audit function has moved to a more value-adding orientation. The study is a conceptual in nature, even though a review of empirical studies gavean insight into the concept under study. It is not and cannot be an alternative for actual field work.The sample used are too few to represent the total population, if more sample should be used, the result would have been better looking at the current economic situation.

Allegrini et al. (2006) reviewed the European internal audit literature. The study aimed to document how the internal audit function is changing in response to the shifts in global business practices. The review concludes that there is a paradigm shift in the duties performed by internal auditors. The study as well concludes that, this is changing because of the challenges that under takes internal audit such as significant advances in relationship between internal and external auditors and increasing complexity of business transactions. More also, the generalizability of the findings to other contexts may thus not be perfect. That is, it could be that the findings obtained from the sample are explicitly precise to the context under study.

2.3.5 Independence of Internal Audit Department and Internal Audit Effectiveness (IAE)

Al-Twaijry et al., (2003) examined the context of internal audit in the Saudi Arabian corporate sector by using questionnaires and institutional theory perspective, taking a sample of 135 companies listed on the Saudi Stock Exchange. This study used compliance with ISPPIA as an indicator of internal audit effectiveness. Thus, it used questionnaires and interviews to assess the extent of compliance of internal audit practices with ISPPIA. The study indicated that internal audit in the Saudi Arabian corporate sector is not effective and it is not a value adding service to organizations. Internal audit work was majorly focused on checking the reliability of financial records, compliance with rules and regulations, as well as evaluation and examination of internal control. The study's results also highlighted that managers sometimes do not implement the recommendation of internal audit units. Further, the results indicated that internal audit may at times be decoupled, that is, the function may not operate in compliance with ISPPIA despite stakeholder's beliefs of compliance. However, the study focused mainly on the Saudi Arabian corporate sector. Furthermore, data was collected only from internal audit directors within organizations. The findings of the study may not have external validity as it may not be applicable to Africa in general and Kano state in particular. The authors suggested that future research is necessary to evaluate internal audit effectiveness adequately, because factors used in this study may have function to reduce the value of internal audit.

The study of Goodwin (2004) examined and used questionnaires survey makes a comparison between the role of internal audit in the public and private sectors in Australia and New Zealand using 120 organizations. The author highlighted that while there is no need for private sectors in Australia and New Zealand to have an internal audit department, the Australian Stock Exchange (ASX) influences large companies to do so. This study made a comparison between the role of internal audit in the public sector and those in the private sector in Australia and New Zealand. The results have indicated that internal auditors in the public sector are less to report to the chief of

financial affairs than those in the private sector. The study finalized that, the two sectors have often outsourced internal audit, public sector organizations are likely to use an external auditor for these services. Also, there appears to be no significant difference between internal auditors in the two sectors in interaction with external auditors. The study failed to go further to look at how the study of this nature will work in African Countries with diverse cultural and commercial activities.

Furthermore, the work of Mihret and Yismaw (2007) investigated internal audit effectiveness in public sector higher educational institutions in Ethiopia. The study introduceda new perspective for evaluating internal audit effectiveness by using a model which consisted of four potential factors which may impact on internal audit effectiveness, namely, internal audit quality, management support, organizational setting and audit attributes. The results indicated that internal audit is not effective in terms of skills, planning, recommendations and shortcomings to the scope of work. Furthermore, the study revealed that, audit quality and management support are the two most important indicators influencing internal audit effectiveness respectively. These researchers also suggested a need for future research to fully understand internal audit effectiveness in the public sector by identifying other variables affecting internal audit effectiveness. Their study also focused mainly on one public sector higher educational institutions in Ethiopia. The study concludes that internal audit effectiveness is powerfully influenced by internal audit quality and management support. In contrary, organizational setting and auditor's attributes do not have a strong impact on internal audit effectiveness. The study failed to look at one of the most important elements of internal audit which is independence of internal audit unit.

Furthermore, Yee et al. (2008) surveyed 83 senior, middle and junior managers of 25 Singaporean organizations using interviews to determine the role and effectiveness of internal audit in Singapore. The result of this study indicates that Singaporean senior and junior managers consider internal audit as a business partnership role. However, mid-level managers showed internal auditing activities as watchdog activities. They studied the perception of Singaporean managers on internal

audit practice. Particularly, they considered whether internal audit is viewed as a partner with management or as a watchdog for routine compliance mechanisms. Overall findings were that: Firstly the internal audit function in Singapore is improving and has become an integral part of organization's structures as a value adding service, secondly in general, managers are satisfied with internal audit, and conclusively, the internal audit function can play a value adding role in modern organizations by expanding its scope of services to embrace operational areas. They also recommends the need to explore the role and effectiveness of internal audit in the Middle-East, because in a developing country the internal audit function might be important in ensuring that money is not wasted through inefficiency, fraud or corruption. That is to say, the results would have been different if internal audit effectiveness was evaluated in terms of perceptions of internal auditors.

Cohen and Sayag (2010) used questionnaires to surveyed 292 Israeli organizations to examine the determinants of internal audit effectiveness by developing a model of its determinants. The model consists of six potential factors which may impact on internal audit effectiveness, namely, the sector of the organization, professional skills of internal auditors, quality of audit work, organizational independence; career and advancement, and top management support. They stated that, internal audit effectiveness is a vital concept which is rarely examined in the academic literatures. In the few studies dealing with internal audit effectiveness, mainly there were concentration on the external auditor and whether the external auditor uses the work of the internal auditor or not. The results of the study suggested that there are very high correlations between perceptions of top management support and internal audit effectiveness. As well, their study emphasized the importance of perceived top management support for the effectiveness of internal audit and the results indicates positive relationships between greater quality of the auditing work, and greater organizational independence and internal audit effectiveness. However,insignificant correlations exist between the variables of professionalize proficiency, career advancement and

auditing effectiveness. The authors indicated that, future research should focus on organizational independence and the quality of the auditing work as determinants to dimensions of internal audit effectiveness. The study revealed that the competence of internal audit staff is not significant in determining internal audit effectiveness. The results of the study would have been better if the relationship between internal and external auditors were employed for the study to show how it would correlate with internal audit effectiveness.

In addition, Mihret et al., (2010) attempted to use a theoretical foundation for the study of internal audit effectiveness of developing propositions and suggesting a research agenda on the antecedents and organizational performance implications of internal audit effectiveness. The study critiques that internal audit effectiveness is facilitated by the dynamics circumstances in an internal audit setting. Also the association between organizational performance and with internal audit extent of compliance with the ISPPIA could be required to assess internal audit effectiveness. The study applied institutional theory and Marx's (1978) theory of circuit of the industrial capital to vital theoretical and researched literatures to develop ways and suggest a research agenda on the past and organizational performance implications of internal audit effectiveness. They as well indicated that empirical testing should not require the adoption of a hard-core positivist mind-set or an exclusively focused on agency theory. The two theories used in the study seems to be contracting, the study should have used either institutional or Marxist theory separately.

Arena and Azzone (2009) used questionnaires administered on 153 companies to identifying the adoption and characteristics of internal audit in Italian companies in the context of dynamism in political-economic settings. The study revealed that, in the light of current changes in the role of the internal audit functions, their study attempts to identify the organizational tools of internal audit effectiveness in Italian companies. Their study proposed a model to evaluate internal audit effectiveness that included internal audit effectiveness as a dependent variable, and resourcefulness and competencies of internal audit team, the audit processes and activities, and the extent of

association between internal audit and audit committee as independent variables. The results of this study also explained that internal audit effectiveness is induced by the characteristics of internal audit, the audit processes and activities, and the organizational nexus. The results revealed that internal audit effectiveness increases in particular when the ratio between the number of internal auditors and workers grows, the chief executive officer is affiliated to the Institute of Internal Auditors, the company adopts control risk self-assessment techniques, and the audit committee is participated in the activities of the internal auditors. The result of this study is flawed owing to the fact that the sample selection technique is not clear. The result may have been more robust if more variables are considered and a better sampling technique is employed.

Dittenhofer (2001) investigated internal auditing effectiveness: An expansion of present methods Literature Review of internal audit effectiveness. The study found that, internal auditing effectiveness can be determined by evaluating the quality of internal auditing procedures. The study was conducted in 2001 which is believed might have been over taken by time if it should be repeated again considering the changes that might have occurred within the time frame.This result of the study suggests that strengthening the independence of internal audit by appointing more independent staff is a positive step towards improving internal audit effectiveness.

Dhamankar and Khandewale (2003) explored both theoretical and empirical literature on effectiveness of internal audit. The study found that it is accepted that, internal audit is a vital constituent of good corporate governance and effective internal auditing would be a strong tool in the hands of the management. The study is a conceptual study, even though a review of empirical studies provides insight into the concept under study, it is not and cannot be an alternative for actual field work.The study failed to mention the sample of the study and the method of data collection as well as the research design used in the study.

Bou-Raad (2000) examined the belief that, the strength of an internal audit unit is assessed in respect to the level of internal audit independence from management and from other operating

responsibilities. Independence of internal auditors increases the internal auditor's effectiveness as this independence may decrease the level of conflict between loyalty to the employer and loyalty to specific managers, and gives auditors an encouraging work environment in which they can carry out their task without pressure. The finding of the study shows independence of internal audit as a key characteristic of an effective internal audit department is the independence with which it works. The standard indicates that the chief audit executive must confirm the organizational independence of the internal audit activity to the board at least annually.

Read and Rama (2003) found that, the independence and objectivity of the internal audit function is influenced when the internal audit director does not have any fear about dismissal because of the actions taken by the internal audit unit. The finding as well found that, organizational independence refers to the placement of the internal audit function in the reporting structure so that it is at liberty to determine the internal audit scope and perform internal audit work without interference. More also, the generalizability of the findings to other contexts may thus be imperfect. That is, it could be that the findings obtained from the sample are explicitly precise to the context under study. The confirmatory factor analysis used in the study cannot be based upon even though various measures of internal audit effectiveness were presented.

Chaveerug (2011) examined the role of accounting information system knowledge on audit effectiveness of CPA's in Thailand through surveyed questionnaires. The study is an empirical research which used the following factors (Accounting information system knowledge on audit effectiveness via the mediating influences of the risk assessment competency, Independence of internal audit and quality of auditor planning judgments) to evaluate the data. The results shows the accounting information system knowledge and independence of internal audit to have positive relationships with internal audit effectiveness and is a positively significance on risk assessment competency and the quality of auditor planning judgments. Thus, we can deduce that the study does

not need direct facts of fundamental relations among internal audit staff and the criteria of audit effectiveness.

2.4 Theoretical framework

Theories that explained value relevant studies are well documented in accounting and finance literatures. In this study, after examining of some theories, it was understood that institutional theory is more relevant to the present study as it elucidates and underpins the associations that subsist among the variables under consideration.

Institutional theory was employed in this study to underpin the research work. Following current internal audit studies carried out by (Al-Twaijry et al., 2003;Arena et al., 2006; Arena &Azzone 2007; Mihretet al., 2010). The reason for using institutional theory is to elucidate the contribution on the concept on internal audit effectiveness. Looking at the recent internal audit studies by (Yee et al. 2008; Mihret et al., 2010), the theory descends from politicize, economy and thus, share same foundations. Institutional theory makes knowledge of internal audit functions as a fraction of the organizational systems and can throw more light on effectiveness of internal audit as a value addition service of an enterprise (Mihret et al., Al-Twaijry et al., 2003; 2010; Yee et al. 2008).

Institutional theory suggested that, success of enterprises relies not on obtaining production effectiveness only but also on its congruity to societal norms of agreeable practice (Meyer & Rowan 1977; DiMaggio & Powell 1983). To illustrate accord, DiMaggio and Powell (1983) illustratedisomorphism as follows: normative, forceful, and mimetic. DiMaggio and Powell (1983) and Meyer and Rowan (1977) the two works made effort to make available the questions: What makes firms look the same? They found that organizations with same in the field because they have to verify social and societal rules. Isomorphism is the similarity of a local enterprise to other enterprises in its environment or field. DiMaggio and Powell (1983) looked at an organizational field as: Those organizations that, in the combine, constitute a known area of institutional manner: vital

producers,and product consumers, regulatory agencies, and all organizations that gave similar resemblance or products.

Criticism of agency and transaction theories which stemmedon the institutional theory nothing that individual belief whether as a product manufacturer or as a consumer, cannot demarcated on the social or communal effects within the behavior that occurs (Hula, 1984). Barley and Tolbert (1997) suggested that, the institutional theory shows the significant value of social and cultural determinants as a significant influence on decision making.

Institutional theory throws light on how organizational elements and practices are designed from dynamism shown by institutional fluids. Institutional theorists contemplate organizations as part of organizational practice that is made up many firms or companies that are reciprocally in the same way.Concerning this study, Mihret et al. (2010) used institutional theory put forward by Dimaggio and Powell (1983), specifically, a revolution of industrial capital. Institutional theory's mostly work as a basis for examining organizational occurrence integrated in a widespread political, economic and social and environments (Mihret et al., 2010). More significantly, they are efficient in giving an insight into the internal audit functions as one of the elements of organizational systems and throw more light on the relationship between external auditors and internal auditors and the achievements of missions of the organizations (Mihret et al., 2010).

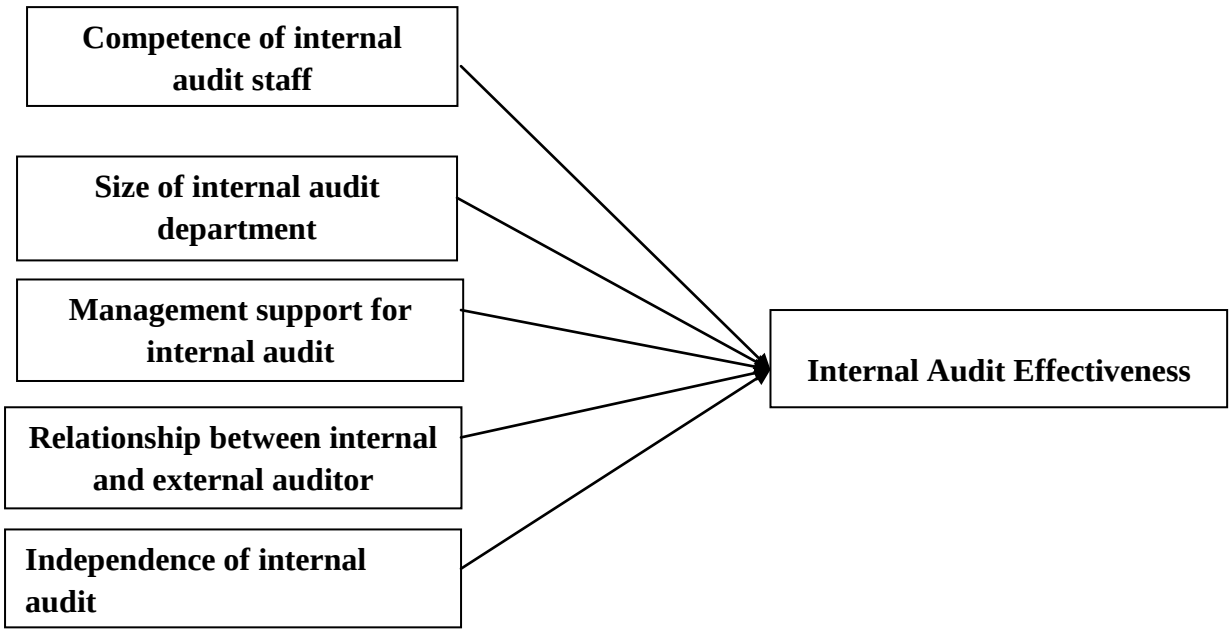
Therefore, educational institution and professionalize are vital for the advancement of organizational patterns among professionalize managers and staff within organizations. Especially, in internal auditing these skills comes on by internal auditors first and foremost undergoing training on internal auditing at university level and qualifying as a Certified Internal Auditor (CIA) or coming up with a chapter of the IIA in their respective jurisdictions. A more consequence of the resultant improvement of skills within the companies increased conformity with IIA standards (Al-Twaijry et al., 2003).

Thus, Al-Twaijry et al., (2003) concluded that, the real works of internal audit units are separated from beliefs of how they work described by ISPPIA. They as well put forward that ISPPIA is not influenced by internal audit sectors have only a small influence on work executed by ISPPIA. They as well believe, thus, that the works carried out by internal audit units do without vouching from external agencies which enable them to function in accordance with their own business processes. However, organizations may have internal audit units, but these may not importantly function in line with ISPPIA regulations. Thus, this study sourced on isomorphic processes put forward by institutional theory to examine internal audit effectiveness.

Institutional theory is seen fitting for internal audit work for divergent reasons. First and foremost, the theory is made up of internal audit habitual practices which are a part of organizational occurrence. Secondly, it help facilitate organizational pressure without presumptuous a few set of organizational goals not like agency and transaction cost theories, which are predicated on the supposition of shareholder wealth maximization. Thirdly, it also helps to support audit research in third world countries and Kano State in particular where the equity market underdeveloped countries (Mihret et al., 2010). Preceding researches suggests that institutional theory has validity in internal audit research, as well as in developing countries (Al-Twaijry et al., 2003) and developed countries (Arena et al., 2006). Moreover, according to Mihret et al., (2010), Institutional theory has a number of inferred statements relating to the possible contextual-dependence on internal audit effectiveness.

Rests on the foregoing discussions, institutional theory is regarded to be the most vital for this study and more specific, it is contemplated to be more attached for internal audit research. The theoretical framework of the study shows the relationship between the constructs used given in Figure 2.1 which is in line with Alzeban and Gwilliam (2014).

Figure 2.1 Theoretical Framework



Researcher's Theoretical Framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter shows and discusses the methodology used in conducting the research study. The chapter explains the research design adopted in the population and sample size of the study. It also discusses the sources and instruments of data collection and specifies the model and technique of data analysis adapted in the study.

3.2 Research Design

This study uses correlational research design as well as a view to observe the problem of the study. A correlational research design was adopted to examine the statistical interrelationship of the dependent and independent variables. Correlational design is therefore surety most suitable for this work due to the fact that it allows the test of expected relationship between dependent and independent variables and making prediction regarding the expected relationship. The study used the measurement of five independent variables against one dependent variable as well as evaluation of the association between or amongst the variables under consideration. The intention of the study is to inquire the determinants of internal audit effectiveness in Kano state MDAs. The effectiveness of internal audit department depends on the requisite of the stakeholders that has to do with management, internal auditors, external auditors, government agencies and other professionalize and regulatory establishments.

3.3 Population of the Study

The population of this work comprises of Chief and Deputy Chief internal auditors of the sampled MDAs in Kano state, this can be justified by the direct contact they have with the internal audit activities. The number of MDAs in the state is 99 according to its website (2015) http//www.kano.gov.ng/kano%20institutional%20agency. Based on this, the study has a population of 198 (2 x 99). The inclusion of deputies is justified by the small population as the inclusion

optimizes or increases the population of the research. It is as well recommended that the bigger sample size of a study, the better the findings (Pallant, 2011). The constituents of this population enabled the researcher to collect objective and detailed information from chiefs and deputy chief internal auditors who have the responsibility for ensuring the effectiveness of the internal audit department in promoting MDAs in the state. In other to avoid preference that may inflate or deflate a given relationship among variables and the instrument used, common method bias test was carried out (Podsakoff et al., 2003), using Harman's Single Factor Score (HSFS), all items of the latent variance are loaded into one common factor. If the total variance for a single factor is less than 50%, it shows that Common Method Bias (CMB) does not affect the data which indicated that the present study has 20.35% (see appendix v).

3.4 Sample and Sampling Technique

The study used a Table given by Krejcie and Morgan (1970) in examining the sample size, with the population of the study standing at 198, the sample size is 132. Simple random sampling technique was used because the list of all the 99 MDAs is at hand making the sampling frame. Accordingly, 66 MDAs were sampled among Chief and Deputy Chief internal auditors making a total of 132 respondents (66x2). Out of every 3 MDAs, 2 are selected at random giving a total of 66 sampled MDAs in Kano state.

3.5 Sources and Method of Data Collection

The study used data from primary source only. The data, which are quantitative in nature, extracted from respondents through self-administered questionnaire to comply with the stated research objectives, as responses were coded using five likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) which is the same with the previous studies in the current research field developed by Alzeban and Gwilliam (2014). This was administered to provide a robust report and ensure true impact of the findings. The questionnaires was close-ended type designed to probe

into the effectiveness of internal audit processes in Kano State Ministries, Departments and Agencies (MDAs).

3.5.1 Validity and Reliability Test (Pilot Study)

A pilot study was scrutinized in order to test for the validity and reliability of the instrument. The validity and reliability of the instruments was obtained using factor analysis each scale item was rated in terms of the relevance of its constructs.

A two-staged pilot study proved that the research instrument is appropriate for the study and that the questionnaires were comprehensive andunambiguous. Participants in the first-staged of the pilot work were mostly academics in the Universiti Utara Malaysia (UUM), (3 in total). Those in the second stage were 11 senior internal auditors of Kano state internal audit departments who responded to the questionnaire and 14 in total. Both stages of the pilot study led to the understandability of the questionnaires to sooth our environment which is characterized with diverse social, cultural, religious, and commercial trait. The questionnaires contained all the questions adapted from the work of Albezan and Gwilliam (2014), which was carried out in Saudi Arabia. The justification to use the chief and deputy chief internal auditor's perceptions were predicated on a will to attain an external assessment of the qualities of internal auditing from those same organizations in which auditors were surveyed and to show indices of internal audit effectiveness.

The study used the guideline of Sekaran and Bougie (2009), who suggested that Reliability of less than 0.6 is considered weak, reliability within the range of 0.7, is considered to be moderate, while reliability of more than 0.8 is considered to be very good. For variables with small Cronbach Alpha indicates that the reliability is weak.

Table 3.1 shows the summary of the Reliability test for the instruments used in the study

Table 3.1: Summary of Reliability Test

Variable	Number of Items	Cronbach's Alpha
Internal Audit Effectiveness	7	.691
Competency	2	.590
Size	1	1
Relationship with External Auditor	3	.685
Management Support	3	.681
Independence	4	.765

Source: **Researcher's Field Work, SPSS Output**

Having validated the items therefore, all the scales used in the study met the minimum of 0.60 except for competence of internal audit staff with .590. Measures, consisting of multiple indicators, were subjected to reliability test using data collected from the 129 sample of respondents that are employees of Kano State MDAs which are part of the population under study. The questionnaire adapted from Alzeban and Gwilliam (2014), was tested using the reliability scale of Chronbach's Alpha. Internal audit effectiveness has a reliability scale of .691, Competence has a reliability scale of .590, Size has a reliability scale of 1, Management Support has a reliability scale of .681, Relationship between internal auditors and external auditors has reliability scale of .685 and independence of internal audit has .765 as shown in Table 3.2. An alpha >0.7 is considered an acceptable and an alpha 0.8 is considered good using rule of thumb (Sekaran&Bougie, 2009).

3.6 Technique of Data Analysis

The technique of the analyses used in the study is multiple-regression hence, descriptive statistics was carried out. The study employed this technique owing to the fact that, it aimed towards investigating the relationship as well as the factors determining internal audit effectiveness. The determining factors considered are the competence of internal audit staff, size of internal audit department, management support for internal audit, relationship between internal and external

auditors and independence of internal audit unit, as independent variables and the dependent variable is internal audit effectiveness. The data was analysed using SPSS Version 21.

3.7 Variables Measurement and Model Specification

The constructs used in this study was measured by gathering and aggregating internal auditors' responses of the questions in the questionnaire. These questions were distributed among the two principal internal auditors of the sampled MDAs in Kano State (Chief and Deputy Chief internal auditors).

The dependent variable, internal audit effectiveness was measured based on the functions as perceived by the chief and deputy chief internal auditors of the sampled MDAs in Kano State using 15-item scale of internal audit effectiveness as shown in the work ofAlzeban and Gwilliam, (2014). The independent variables, Competence of internal audit staff was evaluated using 4 item scale as shown in the work ofAlzeban and Gwilliam (2014), Size internal audit was evaluated using the number of chief and deputy internal auditors 10-item scale adapted from Alzeban and Gwilliam (2014), Management Support for internal audit was measured using 6-item scale adapted from Alzeban and Gwilliam (2014), Relationship between internal and external auditors was measured using 6-item scale adapted from Alzeban and Gwilliam (2014) and Independence of internal audit unit was also measured using 9-items scale as shown in the work ofAlzeban and Gwilliam (2014). All responses in the questionnaire were measured using five-point Likert scale from “strongly disagree” (1) to “strongly agree” (5). The use of 5-point likert scale was necessary because Krosnic and Fabrigar (1997) posited that a scale of 5 - 7 points is more reliable than shorter or longer scale. It is also an interval scale that enables a researcher to analyse questionnaire responses using parametric tools. The adapted questionnaires are divided into seven parts, ranging from demographic data, dependent variable and independent variables. All questions were in close ended forms and the items were rated using a 5-point rating scale where 1 = strongly disagree, 2 = disagree, 3= neutral, 4 = agree, 5 = strongly agree.

3.7.1 Variables Measurement

The variables of the study are measured as follows:

Table 3.2: Variables and their Measurement

Construct	**Nature of Variable**	**Measurement**
Internal Audit Effectiveness	Dependent	This study measured internal audit effectiveness rests on quality of the function as identified by MDAs chief internal auditors and their deputies obtained by the responses of the surveyed questions on aspects of the internal audit function including: ability to plan, improvement of the organization's productivity, assessment of the consistency of the results with established objective and goals, implementation of internal audit recommendations, evaluation and improvement of risk management, evaluation of internal control system and recommendations for improvement.
The competence of the internal audit staff (COMP)	Independent	Was measured by four indicators: Educational qualification, Professionalize qualification, Work Experience in the field of internal auditing and continuous development (average annual training hours)
The size of the internal audit department (SIZE)	Independent	The study was as measured by the number of chief internal auditors and their deputies employed within the department
The relationship between internal and external auditors (RELEX)	Independent	Was measured by a number of proxies: attitude towards external auditors, co-ordination including discussing mutual interests, discussion of the audit plan, external auditor's reliance on the work of the internal audit, frequency of meetings, sharing working papers, and management's promotion of the relationship between these two groups.
Management	Independent	Was measured by a number of indicators, supporting

support for internal audit (MSUP)		internal audit to perform its duties and responsibilities, involvement in the internal audit plans, reports resources of the internal audit department, reports on the work of the internal audit team being delivered to the management, management's responses of the internal audit department
The independence of the internal audit department (IND)	Independent	Was measured by nine items: The level of independence, reporting level, direct contact with the board and senior management, conflicts of interest, interference, unrestricted access to all departments and employee's appointment, and removal of the chief of internal auditing and performance of non-audit activities.

Source: **Compiled by Author (2016)**

3.7.2 Model Specification

Ordinary least squares (OLS) multiple regressions have been done with the aim of estimating the extent of the relationship between the five determinants indicated (the independent variables) on internal audit effectiveness (the dependent variable). The basic OLS regression model was:

$$IAE_i = \beta_0 + \beta_1 COMP_i + \beta_2 SIZE_i + \beta_3 RELEX_i + \beta_4 MSUP_i + \beta_5 IND_i + \varepsilon_i$$

Where:

IAE	internal audit effectiveness
COMP	competence of the internal audit staff
SIZE	size of the internal audit department
RELEX	relationship between internal and external auditors
MSUP	management support for internal audit
IND	independence of the internal audit department
ε	error term
i	cross-sectional index of observation
$\beta_0 - \beta_5$	coefficients of beta values

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter covers all the analyses and interpretation of all results obtained. The chapter begins with analyses of response rate, profile of the respondents, and descriptive statistics of the dependent and independent variables of the study. The chapter also analyses and interprets the regression result from the output of regression results. It concludes with argument of the finding and their policy implications.

4.2 Data Presentation

This section entails analysis of response rate, profile of respondents and descriptive statistics of variables incorporated in the study.

4.2.1 Analysis of Response Rate

Table 4.1 presents the summary of response rate from the questionnaire administered.

Table 4.1: Response Rate from Questionnaires

Response	Frequency / Rate
No. of distributed questionnaires	132
Returned questionnaires	129
Usable questionnaires	129
Questionnaires not returned	3
Response rate	97.73%
Rate of questionnaires not returned	2.27%

Source: The Researcher's Field work, 2016

A total of 132 questionnaires were distributed among the chiefs and deputies internal auditors in the sampled MDAs. In an attempt to achieve high response rates, several phone call reminders in collaboration with the director Kano State internal audit were sent to respondents to facilitate completion of the questionnaires. The outcomes of these attempts yielded 129 returned questionnaires, out of 132 questionnaires that were distributed to the target respondents. This gives a response rate of 97.73% of these 129 questionnaires, only 3 questionnaires were not returned, which gives 2.27% of the participants. 129 questionnaires were used for further analysis.

4.2.2 Profile of Respondents

Table 4.2 presents summary of profiles of the respondents to whom the questionnaires were administered.

Table 4.2: Demographic Profile

Profile	**Frequency**	**Percentage**
Gender		
Male	112	86.8
Female	17	13.2
Total	**129**	**100%**
Age		
20-30 Years	11	8.5
31-40 Years	63	48.8
41 and Above	55	42.6
Total	**129**	**100%**
Marital Status		
Single	22	17.1
Married	103	79.8
Divorced	3	2.3
Separated	1	.8
Total	**129**	**100%**
Qualification		
HND/BSC	66	51.2
MBA/MSC	33	25.6
ND/NCE	28	21.6
SSCE/GCE	2	1.6
Total	**129**	**100%**

Source: **Researcher's Field Work, 2016**

As shown in Table 4.2, the greater number of the respondents in the sample, that is 112 (86.8%), is males while the remaining 17, representing 13.2% were females. Majority of internal auditors in Kano State MDAs were males (86.8%) compared to their female counterparts (13.2%).

Regarding the age group, 8.5% of the participants were in the age group of 20-30 years that's a total number of 11 respondents. This is followed by those in the age group of 31-40 years with total number of 63 respondents, which accounted for 48.8% of the sample. In the age group of 41 and above years, were 55 respondents, representing 42.6% of the sample. The table also shows that most of the 103 respondents were married (79.8%), followed by 22 single (17.1%), divorced respondents were 3 (2.3%) and .8% were separated.

In addition, Table 4.2 shows a high proportion of the respondents were HND/B.Sc holders, which accounted for 51.2% or 66 respondents. This is followed by (25.6%) with MBA/M.Sc degree or 33 respondents, followed by (21.6) or 28 respondents with ND/NCE while the remaining 2, representing 1.6% SSCE/ GCE holders.

4.2.3 Descriptive Statistics of Variables

This section shows the descriptive statistics of the constructs, IAE, COMP, SIZE, RELEX, MS and IND. The rule for the analysis was that any mean responses of 1-2.49, 2.50-3.49 and 3.50-5.00 are rated below average, average and above average respectively. The study used the likert scale of 1 to 5 for interpreting IAE, COMP, SIZE, MS, RELEX, and IND with respect to minimum and maximum.

The summary of the descriptive statistics results is presented in Table 4.3

Table 4.3: Descriptive Statistics for Internal Audit Effectiveness

	N	Min	Max	Mean	Std. Dev.
Internal audit improves organizational performance	129	1	5	3.90	.959
Internal audit reviews operations and programs to ascertain whether results are consistent with established objectives and goals	129	1	5	3.83	.902
Internal audit determines the adequacy and effectiveness of the organization's systems of internal accounting and operating controls	129	1	5	3.66	1.128
Internal audit reviews the accuracy and reliability of financial reports	129	1	5	3.87	.947
Internal audit reviews the compliance with policies, plans, procedures, and regulations	129	1	5	3.93	1.069
Internal audit reviews the compliance with applicable external laws, and regulations	129	1	5	3.74	1.072
Internal audit reviews the means of safeguarding assets	129	1	5	3.54	.935
Internal audit evaluates and improves the effectiveness of risk management	129	1	5	3.62	.962
Internal audit reviews the economic, effective and efficient use of resources	129	1	5	3.71	.937
Internal audit evaluates the internal control system	129	1	5	3.88	.848
Internal audit makes recommendations for improving the internal control system when appropriate	129	1	5	3.80	.896
Internal audit improves the organization's productivity	129	1	5	3.78	.929
Internal audit develops appropriate annual audit plans	129	1	5	3.83	.894
Timely action is taken to implement the recommendations of the internal audit report	129	1	5	3.61	.979
Internal audit provides adequate follow-up to ensure that appropriate corrective action is taken and that it is effective	129	1	5	3.99	.940
Valid N (listwise)	129				

Source: **Output from SPSS, 2016**

Table 4.3 shows the descriptive statistics for Internal Audit Effectiveness. The mean average variable of all the questions from question one (1) to fifteen (15) are all above average that is, above the value of 3.50-5.00 with a minimum score of 1 and a maximum score of 5 of all the fifteen items while the standard deviation is with scores of low and high standard deviation of .848-1.128 respectively. The results indicate high level and quantum of agreement with the statements in the administered questionnaire.

Table 4.4: Descriptive Statistics for Competence of Internal Audit Staff

	N	Minimum	Maximum	Mean	Std. Deviation
Is your educational qualification up to HND/BSC?	129	0	4	.66	.537
Do you have recognized professional qualification e.g. ICAN/ANAN	129	0	5	.63	.626
Your internal auditing experience	129	0	3	1.61	.520
Annual participation in continuous professional development program	129	0	5	.66	.643
Valid N (listwise)	129				

Source: Output from SPSS, 2016

Table 4.4 shows the descriptive statistics on the competence of internal audit department in Kano State MDAs. The mean average variable of all the questions from question one (1) to four (4) items are all below average that is, between the value of 1-2.49 with a minimum score of 0 and a maximum score of between 3-5 of all the four items while the standard deviation is with scores of low and high standard deviation of .520-.643 respectively. These results indicate a low extent exhibition of competence of internal audit staff in Kano State MDAs. It can be justified that the nature of questions for COMP which were not in 5-likert scale are the reason for low mean (refer to the questionnaire Appendix viii).

Table 4.5: Descriptive Statistics for Size of Internal Audit Department

	N	Minimum	Maximum	Mean	Std. Deviation
SIZE1	129	1	10	4.60	2.482
Valid N (listwise)	129				

Source: **Output from SPSS, 2016**

Table 4.5 shows the descriptive statistics for size of internal audit department in Kano State MDAs. The mean average variable of all the questions from question one (1) to ten (10) are all above average that is above the value of 4.6 with a minimum score of 1 and a maximum score of 10 of all the ten items while the standard deviation is with scores of average standard deviation of 2.50 meaning that no internal audit department that has the staff strength beyond 10 based on five likert scale. This result indicates high level of agreement with the statements in the administered questionnaire.

Table 4.6: Descriptive Statistics for Management Support for Internal Audit Department

	N	Min	Max	Mean	Std. Deviation
Senior management supports internal audit to perform its duties and responsibilities	129	1	6	3.67	.945
Senior management are involved in the internal audit plan	129	1	6	3.81	.911
Internal audit provides senior management with sufficient, reliable and relevant reports about the work they perform and recommendations made	129	1	5	3.98	.897
The response to internal audit reports by the senior management is reasonable	129	1	5	3.64	.829
Internal audit department is large enough to successfully carry out its duties and responsibilities	129	1	5	3.75	.875
Internal audit department has sufficient budget to successfully carry out its duties and responsibilities	129	1	5	3.29	1.078
Valid N (listwise)	129				

Source: **Output from SPSS, 2016**

Table 4.6 shows the descriptive statistics for management support for internal audit department of Kano State MDAs. The mean average variable of all the questions from question one (1) to six (6)

are average and above average that is above the value of 3.29-3.98 with a minimum score of 1 and a maximum score between 5 and 6 of all the six items while the standard deviation is with scores of low and high standard deviation of .829-1.078 respectively. These results indicate high level of agreement with the statements in the administered questionnaire.

Table 4.7: Descriptive Statistics for Relationship between Internal and external Auditor

	N	Minimum	Maximum	Mean	Std. Deviation
Internal audit department has right attitude towards external auditors	129	1	5	3.49	1.039
Internal audit department coordinates issues such as mutual interest and audit plan external auditors	129	1	5	3.53	1.083
Where appropriate external auditors' rely on the work of the internal audit	129	1	5	3.26	1.063
Internal audit department meets with external auditors as frequently as required.	129	1	5	3.29	.877
Internal audit department shares working papers with external auditors	129	1	5	3.61	.878
Management of my organization tries in promoting the relationship between these two parties (internal and external auditors)	129	1	5	3.38	1.017
Valid N (listwise)	129				

Source: **Output from SPSS, 2016**

Table 4.7 proves the descriptive statistics of the relationship between internal auditors and external auditors in Kano State MDAs. The mean average variable of all the questions from question one (1) to six (6) are all above average that is above the value of 3.50-5.00 with a minimum score of 1 and a maximum score of 5 of all the twelve items while the standard deviation is with scores of low and high standard deviation of .877-1.083 respectively. This result indicates high level of accord with the statements in the administered questionnaire.

Table 4.8: Descriptive Statistics for Independence of Internal Audit Department

	N	Minimum	Maximum	Mean	Std. Deviation
Internal audit staff is sufficiently independent to perform their professional obligations and duties.	129	1	5	3.64	.983
The head of internal audit reports to a directly chief executive of the organization that allows the internal audit to fulfil its responsibilities	129	1	5	3.95	.979
Internal audit provides adequate follow-up to ensure that appropriate corrective action is taken and that it is effective	129	1	5	3.88	1.051
The internal audit department has direct contact with senior management other than the finance director	129	1	5	3.80	1.003
Conflict of interest is rarely present in the work of internal auditors	129	1	5	3.62	.962
Internal auditors rarely face interference by management while they conduct their work	129	1	5	2.95	1.217
Internal audit staffs have free access to all departments and employees in the organization.	129	1	5	3.49	.821
The office of the auditor general approves the appointment and replacement of the head of internal audit not the management	129	1	5	3.67	1.120
Internal audit staff are not requested to perform non-audit functions	129	1	5	3.33	.955
Valid N (listwise)	129				

Source: **Output from SPSS, 2016**

Table 4.8 shows the descriptive statistics for the independence of internal audit department in Kano State MDAs. The mean average variable of all the questions from question one (1) to nine (9) are all above average that is above the value of 3.50-5.00 with a minimum score of 1 and a maximum score of 5 of all the nine items while the standard deviation is with scores of .821-1.217 respectively. This result indicates some levels of agreement with the statements shown in the administered questionnaire.

4.3 Correlation Analysis

A correlation analysis was conducted to establish the strength of the relationship between the independent and the dependent variables. Table 4.9 presents summary of the correlation matrix.

Table 4.9: Correlation Matrix

Variables		IAE	SIZE1	COMP	MS	RELEX	IND
IAE	Pearson Correlation	1					
	Sig. (2-tailed)						
SIZE1	Pearson Correlation	.137	1				
	Sig. (2-tailed)	(.121)					
COMP	Pearson Correlation	-.042	.064	1			
	Sig. (2-tailed)	(.638)	(.469)				
MS	Pearson Correlation	.342**	.160	.067	1		
	Sig. (2-tailed)	(.000)	(.070)	(.452)			
RELEX	Pearson Correlation	.327**	.120	-.142	.333**	1	
	Sig. (2-tailed)	(.000)	(.174)	(.108)	(.000)		
IND	Pearson Correlation	.496**	.263**	.021	.389**	.409**	1
	Sig. (2-tailed)	(.000)	(.003)	(.812)	(.000)	(.000)	

Source: **Correlation Matrix Results Using SPSS Output**

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

Table 4.9 shows the overall correlation result of all independent and dependent variables to be significant at $p<.01$. Internal audit effectiveness of Kano State MDAs was found to be strongly correlated with the independence of internal audit department ($r>0.5$), management support for internal audit was found to be moderately correlated ($r>0.3$) and relationship between internal auditors and external auditors

was found also to be moderately correlated (r>0.3) all at 1% level of significance as well as the relationship between internal auditors and external auditors at (r>0.4) while size of internal audit department was found to have low correlation at (r>0.26), all at (r>0.01) at 1% level of significance. Thus, the variables are correlated to one another indicating absence of auto serial correlation and fitness of the model.

4.4 Robustness Test of Dependent and Independent Variables

With a bid to ensuring the reliability and validity of the statistical inferences drawn for the study, this section presents the outcome of the robustness tests conducted. The robustness test includes multicollinearity, Normality Test, Factor Analysis, KMO and Bartlett's Test and Common Method Bias (CMB) Test.

Table 4.10: Multicollinearity Test

Variable		Tolerance	VIF
MS		.801	1.248
SIZE		.924	1.083
COMP		.959	1.043
RELEX	.770		1.299
IND	.726		1.378

Source: **Output from SPSS, 2016**

Using the suggestion by Hair et al., (2013) who recommended that tolerance should be higher than 0.20 and Variance Inflation Factor (VIF) less than 5, otherwise there is multicollinearity which means that two independent variables are performing the same function in a research model. Indicating that one of the variables with such issue is redundant, thus, must be removed from the research model. This was carried out to ascertain whether there exists correlation among the explanatory variables themselves, which may affect the result of the study. Table 4.10 shows the matrix of the linear relationship among the explanatory variables of the study. This therefore, signifies the absence of multicollinearity among the independent variables. Furthermore, the low correlation amongst the independent variable means that multicollinearity is not a problem in the sample of the study. In order to prove and corroborate the absence of harmful

multicollinearityamong the explanatory variables, collinearity diagnostics tests are observed as the permissive values and the variance inflation factor (VIF) depict the absence of multicollinearity among the exogenous variables.

Table 4.11 provided statistical skewness and kurtosis of interpreting the normality test results.

Table 4.11: Normality Test

	N	Skewness		Kurtosis	
Variable	Statistic	Statistic	Std. Error	Statistic	Std. Error
IAE	129	-.803	.213	.973	.423
COMPT	129	-.929	.213	1.326	.423
SIZE1	129	.345	.213	-.679	.423
MS	129	-.640	.213	1.133	.423
RELEX	129	-.601	.213	1.011	.423
IND	129	-1.225	.213	2.241	.423
COMPT	129	-.929	.213	1.326	.423

Source: **Output from SPSS, 2016**

Fig. 4.1: Histogram for Normality Test

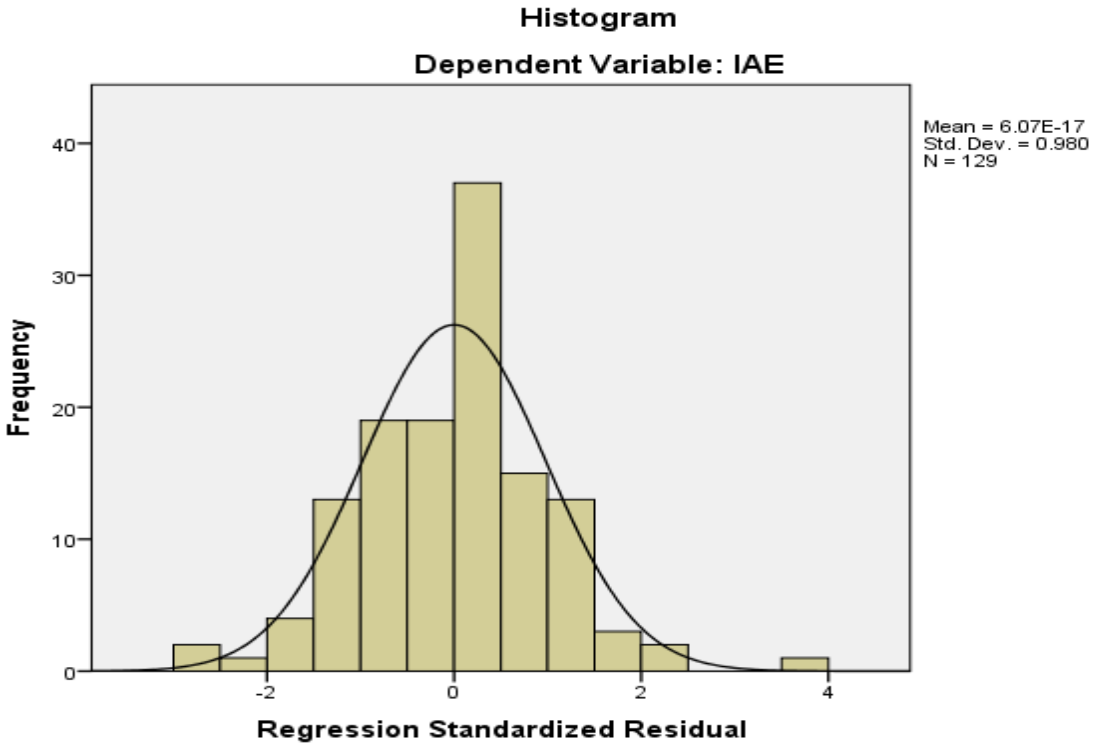


Table 4.11 shows the results of normality test while figure 4.1 gives the histogram for normality test as suggested by Ghasemi and Zahediasls (2012) who recommended that both graphical approach (using histogram) and statistical approach (using skewness and kurtosis) should be used in assessing normality. From the graphical approach, it is evident that the histogram depicts bell-shape as required. For statistical approach, the statistics for skewness are all less than 2 and statistics for kurtosis are all less than 7. The table above indicates statistical skewness between .345 and -1.225 showing skewness of less than 2 and statistical kurtosis between .973 and 2.241 showing kurtosis of less than 7.

Table 4.12 indicates the KMO and Bartlett's results for factor analysis.

Table 4.12: KMO and Bartlett's Test for Factor Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.781
Bartlett's Test of Sphericity - Approx. Chi-Square	1175.262
Sig.	.000

Source: **Output from SPSS, 2016**

Table 4.12 is as used by Awais et al. (2012) for interpreting the KMO results. The authors posit that where the value of KMO for factor analysis is above 0.60, it shows that the sample used in the study is adequate for factor analysis. Awais et al. (2012) also suggested that when the Bartlett's test is significant at 0.000, it shows consistency between the items. The Table shows .781 and 1175.262 are above 0.60 as suggested by Awais et al., which is consistent between the items of the study.

Table 4.13 shows the reason for performing factor analysis to reduce the items to bearable magnitude.

Table 4.13: Factor Rotated Component Matrix

	Component						
Items	1	2	3	4	5	6	7
IND4	.820						
IND3	.762						
IND2	.723						
IAE7		.761					
IAE8		.698					
IAE5		.683					
IAE9		.622					
MS3			.758				
MS1			.725				
MS2			.682				
RELEX4				.773			
RELEX5				.669			
COMP1					.837		
COMP2					.796		
IAE3						.817	
IAE11						.598	
SIZE							.793

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 7 iterations.

Source: Field Work 2016

Table 4.13 presents summary of factor matrix used based on Pallant (2001) who suggested that the main reason for performing factor analysis is to reduce the items to manageable size. After performing factor analysis, internal audit effectiveness, out of 15 items only 6 (divided into two dimensions) were valid for further analysis. For competence of internal audit staff (COMP) only 2 out 4 were valid for further analysis. Size of internal audit department (SIZE) was a ratio variable having a single item in the questionnaire, thus, maintained. Likewise, for management support for

internal audit (MS) has only 3 out of 6 were valid. For relationship between internal auditor and external auditor (RELEX) has only 2 out of 6 were also valid for further analysis. Lastly, out of 9 items for independence of internal audit (IND) only 3 were valid for further analysis.

Table 4.14 below provided summary of total variances in the model.

Table 4.14: Summary of Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.361	20.350	20.350	9.361	20.350	20.350
2	4.417	9.603	29.953			
3	2.837	6.168	36.121			
4	2.064	4.487	40.607			
5	1.961	4.263	44.870			
6	1.885	4.097	48.967			
7	1.632	3.548	52.515			
8	1.337	2.907	55.422			
9	1.291	2.806	58.228			
10	1.231	2.676	60.903			
11	1.158	2.518	63.421			
12	1.087	2.364	65.785			
13	1.033	2.245	68.030			
14	1.012	2.201	70.230			
15	.941	2.046	72.277			

Extraction Method: Principal Component Analysis: Researcher's Field Work 2016

According to table 4.14 and according to Podsakoff and Organ (1986), all items in this study were subjected to a principal components factor analysis. The results of the analysis yielded single factor, explaining a cumulative of 20.350 (20.35%) of the variance; with the single factor explaining 20.35% of the variance, which is less than 50% (Kumar 2012). In additional, the result indicates that no single factor reported for the majority of covariance in the predictor and criterion variables (Podsakoff et al., 2012). The result revealed that the instrument used is free from significant common method bias effects. This conclusion was drawn based on the first component (IAE1 – Internal Audit

improves organizational performance) in the Total Variance Explained Table 4.14 whose percent (%) of variance is 20.350 which is pretty lower than 50% significance effects rule.

4.5 Interpretation of Regression Result

The Summary of the regression result obtained from the model of the study is presented in Table 4.15.

Table 4.15: Model Summary[b]

Variable	Model	R	R^2 Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	F-Statistic	Sig.	Tolerance/ VIF
COMP SIZE MSUP RELEX IND	1	.615[a]	.379	.354	6.292	1.839	15.000	.000	.959/1.043 .924/1.083 .801/1.248 .770/1.299 .726/1.378

a. Predictors: (Constant), Independence of Internal Audit, Competence of Internal Audit Staff, Size of Internal Audit, Management Support for Internal Audit Department, Relationship between Internal and External Auditors

b. Dependent Variable: Internal Audit Effectiveness

Source: SPSS Output

The result in Table 4.15 indicates that the five variables accounts for 35.4% (adj r= 0.354) change in the internal audit effectiveness in Kano state Ministries, Departments and Agencies (MDAs). It also indicates strong relationship between the variables (r= 0.379). While durbin-watson statistics is 1.839 indicating absence of auto serial correlation and fitness of the model. The study interprets the result of the R-square based on Cohen (1988) who classified R-square of 0.02, 0.15, 0.35 as weak, moderate and substantial respectively. The R-square of the current model (0.354) can be considered strongly correlated. It implied that the five variables of the study explained 35.4% of

internal audit effectiveness, while rest 64.6% could be answered by other variables not considered in the current research model.

The beta coefficients, t-statistics and probability values are shown in Table 4.16.

Table 4.16: Variable Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.194	4.715		4.283	.000
	Competence of Internal Audit Staff	.048	.375	.009	.129	.897
	Size of Internal Audit	.198	.232	.063	.853	.395
	Management Support for Internal Audit Department	.548	.230	.208	2.388	.018**
	Relationship between Internal and External Auditors	-.072	.182	-.039	-.395	.693
	Independence of Internal Audit Department	.765	.145	.497	5.278	.000***

a. Dependent Variable: Internal Audit Effectiveness

*** Significant at 1%

**Significant at 5%

*Significant at 10%

Source: SPSS Output

Table 4.16 presented the overall result which showed that the model jointly explained 35.4% of the variance of Ministries, Departments and Agencies (MDAs) internal audit effectiveness. The model was significant at 5% level (F=15.000, sig=.000). Two predictor variables (independence of internal audit department and management support for internal audit were examined to have statistically significant with internal audit effectiveness of MDAs. However, competence of internal audit staff, size of internal audit department, management support for internal audit, relationship between internal and external auditors and independence of internal audit department on internal audit effectiveness in Kano State MDAs jointly explained 35.4% of the variance in the effectiveness of internal audit in Kano state Ministries, Departments and Agencies (MDAs).

The sum of square, mean square and F Sig. are presented in Table 4.17 which shows the ANOVA regression results.

Table 4.17: ANOVA[b]

Model		Sum of Squares		Df	Mean Square	F Sig.
1	Regression	2968.913	5	593.783	15.000	.000[a]
	Residual	4869.056	123	39.586		
	Total	7837.969	128			

a. Predictors: (Constant), Independence of Internal Audit, Competence of Internal Audit Staff, Size of Internal Audit, Management Support for Internal Audit Dept, Relationship between Internal and External Auditors
b. Dependent Variable: Internal Audit Effectiveness
Source: SPSS Output

The ANOVA regression result as shown in the Table 4.17 produces a p-value of .000, which obviously lies below the significant values. So, it can be concluded that, the regression is significant and could possibly say that internal audit effectiveness changes or affects significantly the competence of internal audit staff, size of internal audit, management support for internal audit, relationship between internal and external auditors and independence of internal audit department.

4.6 Test of Hypotheses and Discussion of Findings

The study tests the significance of the hypotheses using t-statistics and p-value based on the suggestion of Hair, Ringle, and Sarstedt (2011) who suggested that Critical *t*-values for a two-tailed test are 1.65 (significance level= 10 percent), 1.96 (significance level = 5 percent), and 2.58 (significance level = 1 percent). The five hypotheses of the study are tested based on Table 4.16

$H0_1$: Competence of internal audit staff is not a significant determinant of internal audit effectiveness in Kano State Ministries, departments and Agencies (MDAs)

Table 4.16 shows that multiple regression analysis of Competence of internal audit staff and internal audit effectiveness in Kano State MDAs is not significant (beta=0.009, p=0.897 at 1% significance level) which shows that the p value is greater than the level of significance. Therefore, we failed to reject hypothesis one ($H0_1$).

From the table, the t-value signifies that COMP, is not a significant factor that determine internal audit effectiveness of sampled MDAs in Kano State. This implies that for every one percent (1%) increase in COMP, internal audit effectiveness would increase by only 0.9%. This may be in support of the propositions of legitimacy that government is expected to strike an effective balance between its competence and internal audit effectiveness. Audit in practice shows that if competence of internal audit staff is high it is expected that effectiveness is likely going to be high as justified by institutional theory used in this study. The finding is in line with those of Alzeban and Gwilliam (2012), Vijayakumar and Nagaraja (2012), Unegbu and Kida (2011), Ahmad et al. (2009), Grambling and Hermanson (2009), Seol and Sarkis (2005), Mihret and Yismaw (2007) and Mulugeta (2008).

$H0_2$: Size of internal audit is not a significantly determinant of internal audit effectiveness in Kano State Ministries, departments and Agencies (MDAs)

Table 4.16 shows that regression analysis of size of internal audit unit and internal audit effectiveness in Kano state MDAs is not significant (beta=0.063, p=0.395 at 5% significance level) which shows that p value is greater compare to the level of significance. Therefore, we failed to reject hypothesis two ($H0_2$).

The t-value shows that size of internal audit unit has no significant influence on internal audit effectiveness. This implies that for every one percent (1%) increase in Size of internal audit department, internal audit effectiveness would increase by only 6.3%. This shows increase in the size of internal audit department of MDAs may not significantly increase their internal audit effectiveness. The result is in line with the institutional theory which posits that, the higher the size of internal audit the lower the internal audit effectiveness. This is in line with the findings of El-Nafabi (1998), Brierley et al., (2001), Gwilliam and El- Nafabi (2002), Ali et al. (2007), Mihret and Woldeyohannis (2008), Mulugeta (2008) and Ahmad et al. (2009).

$H0_3$: Management support for internal audit is not a significant determinant of internal audit effectiveness in Kano State Ministries, departments and Agencies (MDAs)

Table 4.16 shows that regression analysis of Management support for internal audit department and internal audit effectiveness in Kano state MDAs is significant (beta=2.388, p=0.018 at 5% level) which shows that, the p value is less than the level of significance. Therefore, hypothesis three ($H0_3$) is rejected.

Based on the regression result, management support is positively and significantly driving internal audit effectiveness in Kano State MDAs. This implies that for every one percent (1%) increase in Management Support, IAE would be increased by 20.8%. this indicates that management support to internal audit department may significantly enhance the internal audit effectiveness. In theory management support for internal audit is absolutely critical but in practice management support for training and development of internal auditors is not always achievable. Practically, more management support for internal audit may result to higher internal audit effectiveness. This corroborates the findings of Barret (2001), Saren and De Beelde (2004), Marsh et al. (1998), Bakehouse and Doyle (2003), Rittenberge and Covaleski (1997), Kanungo (1982), Buttler (2001), Mihret and Yismaw (2007), Zain, Subramaniam and Stewart (2006), Mihret et al., (2010) and Alzeban and Gwilliam (2014).

$H0_4$: Relationship between internal auditors and external auditors is not a significant determinant of internal audit effectiveness in Kano State Ministries, departments and Agencies (MDAs)

Table 4.16 shows that regression analysis of relationship between internal auditors and external auditor and internal audit effectiveness is not significant (beta=-0.039, p=0.693) which shows that the p value is greater/higher than 5% level of significance. Therefore, we failed to reject hypothesis four ($H0_4$).

The result further signifies that relationship between internal and external auditors does not significantly influence internal audit effectiveness in the sampled Kano State MDAs. This implies

that for every one percent (1%) increase in the relationship between internal and external auditors, internal audit effectiveness would increase by 3.9%. This applies that increase in the relationship between internal auditors and external auditors may not necessarily lead to any increase in the internal audit effectiveness in Kano state MDAs. This is in line with institutional theory which shows that the relationship between internal auditors and external auditors assist stake holders of its audit committee to effectively undertake the audit system and the financial information activities but in practice the external auditors do not perceive internal auditors trustworthy and professional. The finding is not consistent with that of Mihret (2010), Paape (2007), Arena and Azzone (2009), Goodwin (2004), Braiotta and Marsh (1992, and Al-Twaijry et al., (2004).

$H0_5$: Independence of internal audit is not a significant determinant of internal audit effectiveness in Kano State Ministries, departments and Agencies (MDAs).

Table 4.16 shows that regression analysis of independence of internal audit and internal audit effectiveness in Kano state MDAs is significant (beta=0.497, p=0.000 at 1% level) which shows that, the p value is less than the level of significance. Therefore, hypothesis five ($H0_5$) is rejected.

The result also implies that for every one percent (1%) increase in independence of internal audit Department, internal audit effectiveness would increase by 49.7%. This result is not surprising because it is in line with a priori expectation of the study.In line with institutional theory of auditing, this shows that, internal auditors should have the right to say their opinion without any act of bias or restriction, thus, absolute independence is literally not possible in practice as internal auditors are organization's workers. The findings corroborate those of IIA (2011), Read and Rama (2003), Cheung and Opiang (1997), Vinten (1999), Bou- Raad (2000), Wilson and Dycas (2010), Gendron and Bedard (2006), Coren and Savage (2010), Vanasco, Skousen and Santaga (1996) and Arena and Azzone (2009).

4.7 Policy Implications of the Findings

The findings of this study have a number of theoretical, practical and regulatory implications. These implications are contributions to knowledge contained in the study which are expected to be of benefit to Ministries, Departments and Agencies (MDAs), existing body of knowledge within the purview of accounting research, accountants in practice, investors, regulatory bodies and agencies and other stakeholders of the MDAs in Kano State as the result of the study, would go a long way in bringing to the notice of stakeholders the determinants of effectiveness of internal audit of the MDAs to which they have a stake. The findings of the study have important policy implications and would also assist the regulatory agencies such as IIA and ISPPIA should as a matter of policy ensure that the policies on internal audit effectiveness are strictly adhered to with a view to putting the Kano State MDAs at par with their counterparts across Nigeria.

Based on the analysis in the foregoing study, independence of internal audit department is positively and significantly influencing the internal audit effectiveness. This implies that effectiveness represented by independence of internal audit department plays a significant role in determining and influencing the internal audit effectiveness of Kano state MDAs. This implication also corroborates or substantiates the propositions that it is only when internal audit is independent that it can enhance effectiveness of internal audit. Since Kano MDAs operates in a society that their services become imperative for the survival of public sector, they are expected to generate higher independence which increases internal audit effectiveness.

In addition, the analysis in the study shows management support is positively and significantly determining the internal audit effectiveness in Kano state MDAs. This implies that management support plays a crucial role in predicting, determining and encouraging government to ensure independence of Kano state MDAs internal audit, this implies that management plays a crucial role in determining and encouraging internal audit.

Furthermore, the analysis in the study indicates that competent staff, size of internal audit and relationship between internal auditors and external auditors has been found to be statistically insignificant in providing driving forces towards the internal audit effectiveness of the sampled Kano state MDAs. This implies that, the size of internal audit department as is an important factor in determining the quantum of internal audit effectiveness in Kano state MDAs. Furthermore, based on the analysis of findings in the study, competence of internal audit staff, size of internal audit department and relationship between internal and external auditors has a statistically insignificant negative determinant on internal audit effectiveness of the sampled MDAs in Kano state. This implies that these variables do not play any significant role in determining the internal audit effectiveness.

The findings above have implications to all the stakeholders of Kano state MDAs. Therefore, the various stakeholders, investors, regulatory bodies and agencies as a result of the study has to be conscious of the relevance of internal audit effectiveness and the factors that determines the government's decision to invest in internal audit effectiveness. More particularly, the stakeholders should take into cognizance the influence of independence of internal audit department and top management support for internal audit effectiveness of Kano state MDAs.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of the study

The study investigates the determinants of internal audit effectiveness in Kano state Ministries, Departments and Agencies (MDAs). A multiple regression model was applied with a view to explaining and predicting empirically the internal audit effectiveness in Kano state MDAs. The model employed for this study estimates the association and effects of five explanatory variables with the aid of least squares technique.

The study is premised on the fact that internal audit effectiveness is a lingering issue that deserves attention in the academia, business environments, regulatory bodies, agencies amongst others. However, the study sought to examine the determinants of internal audit effectiveness in Kano state MDAs. The exogenous variables of this study constitute the determinants or factors of internal audit effectiveness. The five determinants of internal audit effectiveness form the bases of hypotheses one to five of the study. While internal audit effectiveness was measured with functions as perceived by sampled MDAs chief internal auditors and their deputies to be attained by summing their responses to surveyed questions on aspects of the internal audit functions including: willingness for planning, uplifting of the organization's establishments, appraisal of the consistency of the results with established objectives, fulfilment of internal audit inducements, diagnosis and uplifting of risk management, examination of internal control system and recommendations for excellence advancement.

The findings of this work are strictly on the data or instrument from primary source only. The data, which are quantitative in nature, have been extracted from respondents through self-administered questionnaire to comply with the stated research objectives, as responses is coded using five likert scale from 1 (strongly disagree) to 5 (strongly agree) which is in line with the

previous studies in the current research field developed by (Belay 2007). This is administered to provide a robust source of information and guaranteed validation of the findings.

5.2 Conclusions

As a corollary of the discussion and analysis of the results, the study concludes as follows. Firstly, the study makes an attempt in statistically and empirically providing evidence on the combination of five independent variables (competence of staff, size of internal audit, management support for internal audit, relationship between internal and external auditors and independence of internal audit department) that constitute the determinants of internal audit effectiveness. Secondly, this study was found to have a positive significant association between the Independence of internal audit department and internal audit effectiveness. It is therefore concluded that, Independence of internal audit department is one of the powerful determinant of internal audit effectiveness as it plays a significant role in determining the internal audit effectiveness of Kano state MDAs.

In addition, management support was found to have positive significant impact on internal audit effectiveness in Kano state Ministries, departments and Agencies (MDAs). The study therefore, concludes that management support is one of the strong determinants of internal audit effectiveness as it plays a noticeable role in determining the internal audit effectiveness of Kano state Ministries, departments and Agencies (MDAs). More so, the study found insignificant association between Competence of internal audit staff, Size of internal audit, and Relationship between internal and external auditors with the internal audit effectiveness of the sampled Kano State MDAs. Thus, the study concluded that Competence of internal audit staff, Size of internal audit and Relationship between internal auditors and external auditors is not one of the determinants of internal audit effectiveness of the sampled MDAs in Kano state. On the whole, the study concludes that the explanatory variables have significantly played a role in determining the internal audit effectiveness, except for Competence of internal audit staff, Size of internal audit and Relationship between

internal and external auditors which were found to be insignificant in terms of predicting the internal audit effectiveness.

5.3 Recommendations

The study recommends as follows:

1) To gain appropriate scale of independence of internal audit unit, the internal audit chief internal auditors and their deputies should inform, report and interact directly with the stakeholders rather than the governor to secure its independence and credibility. Internal auditors should state their opinions liberally and make recommendations where necessary without any bias or restrictions.
2) In order to induce the level of internal audit professionalizecertificate qualifications in Nigeria, a chapter of the IIA is required to be reformed to encourage so as to bring out the profession of internal audit and make opportunities for internal auditors to include certification programs in auditing and internal auditing. Additionally, internal audittraining programs should be proffered by Nigeria tertiary institution and other educational entities.
3) Regulatory authorities ought to labor in the direction of reviewing upward or downward of workers in internal audit units because the low extent of professionalize certificate qualifications and quick turning around of workers in the internal audit unitwhich results in internal auditors (excluding directors) having a minimum extents of knowledge in auditing. Thus, it is induced that well-experienced internal auditors have to be retained in the internal audit units for an interval of time.
4) Kano state MDAs should make effort in the direction of a transition from operating system to a computer system. Constant training of internal auditors and auditing software packages should be encouraged. This helps internal audit department to do their work fully effective.

5) Working papers need to be available and shared between the internal auditors and external auditors to attain their functions and significant purposes from specialized procedures used by auditors.

5.4 Limitations of the Study

This work has accomplished its purposes and objectives. However, as it is also a feature of other study of this type, a lot of handicaps are recognized and stated as follows. The first weakness of this research is that, the study is limited to MDAs in Kano State Nigeria. Therefore, findings and recommendations may also be applied in some northern states which have the same characteristics with Kano state Nigeria.

The second limitation give an accountto the fact that this study rely on perceptions of Chief internal auditors and their deputies, may not cast back the real situations or positions of the respondents. For example, participants may answer questions to satisfy the researcher's expectations or they may be overstated on the other side, so as to focus psychology to a more identified problem. Other groups such as Senior Internal Auditors and other key staff at Kano state MDAs could contribute to better understanding of the issue.

5.5 Suggestions for Future Research

The following are areas of suggestion for future research:

1. The study used five factors that determine internal audit effectiveness (competence of internal audit staff, size of internal audit, top levelmanagement support for internal audit, relationship between internal auditors and external auditors, and independence of internal audit department). Therefore, suggested that, further studies should incorporate more variables such as risk management, accounting information system, internal audit quality, organizational setting, auditor's attributes and audit committee as this would lead to further understanding and identification of the factors that determine internal audit effectiveness.

2. The study measured internal audit effectiveness rests on the attribute of the function as recognized by MDAs chief internal auditors and their deputies in internal audit effectiveness. Researches ought to be conducted in the area of internal audit to aim at bringing out a statistical model for testing the effectiveness of internal audit. This model should incorporate all the identified elements or factors of effectiveness as far as internal audit effectiveness is concern.

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APPENDICES

APPENDIX I



Department of Accounting, Ahmadu Bello University, Zaria

Survey Questionnaire

Dear Respondent,

I am conducting a research on ***Determinants of Internal Audit Effectiveness in Kano State Ministries, Departments and Agencies (MDAs)***. I am happy to inform you that you have been chosen to participate in this survey.

Please be advised that there is no right or wrong answer, only your views and opinions on each of the statements are required. Your responses are highly critical in achieving the objectives of this study. Please, be informed that confidentiality of your answers and the data collected will be used only for the purpose of this study.

In case you may require further information regarding this study, please contact my supervisors: Dr. Hassan Ibrahim and Dr. M. S. Tijjani, all at Department of Accounting, Ahmadu Bello University, Zaria.

Thank you for sparing your precious time.

Yours Sincerely,

NuraBadamasi

Student, M.Sc. Accounting and Finance

Reg. No.: M. Sc /Admin/30206 /2012-2013

Section 1: DEMOGRAPHIC DATA: Respondent's profile. Please cross (X) ONE ONLY in the box. Please provide answers to the following;

1: Gender: ☐ Male ☐ Female

2: Age: ☐ 20-20 ☐ 31-40 ☐ 40 and above

3. Marital status Single: ☐ married ☐ Divorced ☐ Separated ☐

4. Qualification: SSCE/GCE ☐ ND/NCEHND/BSC MBA/MSC ☐

Section 2: ASSESSMENT OF INTERNAL AUDIT EFFECTIVENESS. Please respond to the following statements by circling the appropriate option: 1-Strongly Disagree, 2- Disagree, 3-Neutral, 4-Agree, 5-Strongly agree.

Code	Statements relating to **INTERNAL AUDIT EFFECTIVENESS**	
IAE1	Internal audit improves organizational performance	1 2 3 4 5
IAE2	Internal audit reviews operations and programs to ascertain whether results are consistent with established objectives and goals	1 2 3 4 5
IAE3	Internal audit determines the adequacy and effectiveness of the organization's systems of internal accounting and operating controls	1 2 3 4 5
IAE4	Internal audit reviews the accuracy and reliability of financial reports	1 2 3 4 5
IAE5	Internal audit reviews the compliance with policies, plans, procedures, and regulations	1 2 3 4 5
IAE6	Internal audit reviews the compliance with applicable external laws, and regulations	1 2 3 4 5
IAE7	Internal audit reviews the means of safeguarding assets	1 2 3 4 5
IAE8	Internal audit evaluates and improves the effectiveness of risk management	1 2 3 4 5
IAE9	Internal audit reviews the economic, effective and efficient use of resources	1 2 3 4 5
IAE10	Internal audit evaluates the internal control system	1 2 3 4 5
IAE11	Internal audit makes recommendations for improving the internal control system when appropriate	1 2 3 4 5
IAE12	Internal audit improves the organization's productivity	1 2 3 4 5

IAE13	Internal audit develops appropriate annual audit plans	1 2 3 4 5
IAE14	Timely action is taken to implement the recommendations of the internal audit report	1 2 3 4 5
IAE15	Internal audit provides adequate follow-up to ensure that appropriate corrective action is taken and that it is effective	1 2 3 4 5

Section 3: ASSESSMENT OF COMPETENCE OF INTERNAL AUDIT STAFF
Please respond to the following statements by ticking [✓] the appropriate option (s).

Code	Statements relating to **COMPETENCE OF INTERNAL AUDIT STAFF**
COMP1	Is your educational qualification up to HND/BSC? No ☐ Yes ☐
COMP2	Do you have recognized professional qualification e.g. ICAN/ANAN? No ☐ Yes ☐
COMP3	Your internal auditing experience: Less than 5 years ☐ 5and above ☐
COMP4	Annual participation in continuous professional development program: No ☐ Yes ☐

Section 4: ASSESSMENT OF SIZE OF INTERNAL AUDIT DEPARTMENT. Please respond to the following statements by ticking [√] the appropriate option (s).

Code	Statements relating to **SIZE OF INTERNAL AUDIT DEPARTMENT**
SIZE1	Number of staffs in your internal audit department ONE ☐ TWO ☐ THREE ☐ FOUR ☐ FIVE ☐ SIX ☐ SEVEN ☐ EIGHT ☐ NINE ☐ TEN ☐

Section 5: ASSESSMENT OF MANAGEMENT SUPPORT FOR INTERNAL AUDIT DEPARTMENT. Please respond to the following statements by circling the appropriate option: 1-Strongly Disagree, 2-Disagree, 3- Neutral, 4-Agree, 5-Strongly agree.

Code	Statements relating to **MANAGEMENT SUPPORT FOR INTERNAL AUDIT DEPARTMENT**	
MS1	Senior management supports internal audit to perform its duties and responsibilities	1 2 3 4 5
MS2	Senior management are involved in the internal audit plan	1 2 3 4 5
MS3	Internal audit provides senior management with sufficient, reliable and relevant reports about the work they perform and recommendations made	1 2 3 4 5
MS4	The response to internal audit reports by the senior management is reasonable	1 2 3 4 5
MS5	Internal audit department is large enough to successfully carry out its duties and responsibilities	1 2 3 4 5
MS6	Internal audit department has sufficient budget to successfully carry out its duties and responsibilities	1 2 3 4 5

Section 6: ASSESSMENT OF THE RELATIONSHIP BETWEEN INTERNAL AND EXTERNAL AUDITORS. Please respond to the following statements by circling the appropriate option: 1-Strongly Disagree, 2-Disagree, 3- Neutral, 4-Agree, 5-Strongly agree.

Code	Statements relating to **RELATIONSHIP BETWEEN INTERNAL AND EXTERNAL AUDITORS**	
RELEX1	Internal audit department has right attitude towards external auditors	1 2 3 4 5
RELEX2	Internal audit department coordinates issues such as mutual interest and audit plan external auditors	1 2 3 4 5
RELEX3	Where appropriate external auditors' rely on the work of the internal audit	1 2 3 4 5
RELEX4	Internal audit department meets with external auditors as frequently as required	1 2 3 4 5
RELEX5	Internal audit department shares working papers with external auditors	1 2 3 4 5

RELEX6	Management of my organization tries in promoting the relationship between these two parties (internal and external auditors)	1 2 3 4 5

Section 7: ASSESSMENT OF INDEPENDENCE OF INTERNAL AUDIT DEPARTMENT. Please respond to the following statements by circling the appropriate option: 1-Strongly Disagree, 2-Disagree, 3- Neutral, 4-Agree, 5-Strongly agree.

Code	Statements relating to **INDEPENDENCE OF INTERNAL AUDIT DEPARTMENT**	
IND1	Internal audit staff are sufficiently independent to perform their professional obligations and duties	1 2 3 4 5
IND2	The head of internal audit reports to a directly chief executive of the organization that allows the internal audit to fulfill its responsibilities	1 2 3 4 5
IND3	The head of internal audit has direct contact with the chief executive of the organization as well as the governing board.	1 2 3 4 5
IND4	The internal audit department has direct contact with senior management other than the finance director	1 2 3 4 5
IND5	Conflict of interest is rarely present in the work of internal auditors	1 2 3 4 5
IND6	Internal auditors rarely face interference by management while they conduct their work	1 2 3 4 5
IND7	Internal audit staffs have free access to all departments and employees in the organization	1 2 3 4 5
IND8	The office of the auditor general approves the appointment and replacement of the head of internal audit not the management	1 2 3 4 5
IND9	Internal audit staff are not requested to perform non-audit functions	1 2 3 4 5

THANK YOU FOR YOUR PARTICIPATION

APPENDIX II: Reliability Output for Pilot Study

```
GET
  FILE='C:\Users\WIN_7\Documents/AppendixII SPSS Tests reliability pilot\Reliability Test.sa'.
DATASET NAME DataSet0 WINDOW=FRONT.
RELIABILITY
  /VARIABLES=IAE12 IAE11 IAE10 IAE9 IAE8 IAE7 IAE6 IAE5 IAE4 IAE2 IAE1
  /SCALE ('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=CORR
  /SUMMARY=TOTAL MEANS VARIANCE CORR.
```

Reliability

[DataSet1] C:\Users\WIN_7\Documents\AppendixII SPSS Tests reliability pilot\ Reliability Test.sav

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	11	100.0
	Excluded[a]	0	.0
	Total	11	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.737	.707	11

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.744	3.273	4.273	1.000	1.306	.130	11
Item Variances	.934	.364	2.055	1.691	5.650	.369	11
Inter-Item Correlations	.180	-.746	.862	1.608	-1.156	.166	11

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Internal audit improves the organization's productivity	37.82	22.964	.486	.	.704

Internal audit makes recommendations for improving the internal control system when appropriate	37.00	24.200	.866	.	.665
Internal audit evaluates the internal control system	37.36	26.255	.463	.	.709
Internal audit reviews the economic, effective and efficient use of resources	37.55	19.273	.782	.	.637
Internal audit evaluates and improves the effectiveness of risk management	37.91	24.691	.384	.	.722
Internal audit reviews the means of safeguarding assets	37.73	26.618	.574	.	.702
Internal audit reviews the compliance with applicable external laws, and regulations	37.82	33.764	-.346	.	.795
Internal audit reviews the compliance with policies, plans, procedures, and regulations	37.45	25.073	.582	.	.692
Internal audit reviews the accuracy and reliability of financial reports	37.27	24.218	.765	.	.672
Internal audit reviews operations and programs to ascertain whether results are consistent with established objectives and goals	36.91	30.291	.064	.	.750
Internal audit improves organizational performance	37.00	33.400	-.373	.	.781

```
GET
  FILE='C:\Users\WIN_7\Documents\ Tests RAW DATA\ Questionnaire.sav'.
DATASET NAME DataSet0 WINDOW=FRONT.
DESCRIPTIVES VARIABLES=Internal_Audit_Effectiveness Size_of_Internal_Audit_Dept Mgt_S
upport_for_Internal_Audit_Dept Competence_of_In
```

ternal_Audit_Department Relationship_between_Internal_and_External_Auditors Independence_of_Internal_Audit
/STATISTICS=MEAN STDDEV MIN MAX.

APPENDIX III: Descriptive Statistics Output

Descriptive Statistics
[DataSet1] C:\Users\WIN_7\Documents\ Tests RAW DATA\Appendix II Questionnaire.sav

Summary of Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Internal_Audit_Effectiveness	129	30	75	56.68	7.825
Competence_of_Internal_Audit_Department	129	1	10	3.74	1.517
Size_of_Internal_Audit_Dept	129	1	10	4.60	2.482
Mgt_Support_for_Internal_Audit_Dept	129	12	30	22.14	2.976
Relationship_between_Internal_and_External_Auditors	129	6	30	20.55	4.268
Independence_of_Internal_Audit	129	9	45	32.33	5.084
Valid N (listwise)	129				

APPENDIX IV: Correlation Results

CORRELATIONS
/VARIABLES=Internal_Audit_Effectiveness Competence_of_Internal_Audit_Department Size_of_Internal_Audit_Dept Mgt_Support_for_Intern
al_Audit_Dept Relationship_between_Internal_and_External_Auditors Independence_of_Internal_Audit
/PRINT=TWOTAIL NOSIG
/MISSING=PAIRWISE.

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method

1	Independence of Internal Audit, Competence of Internal Audit staff, Size of Internal Audit, Management Support for Internal Audit Department, Relationship between Internal and External Auditors[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Internal Audit Effectiveness

Above indicates the independent variables and footnotes that shows name of the dependent variables.

Correlations

[DataSet1] C:\Users\WIN_7\Documents\ Tests RAW DATA\Appendix I Questionnaire.sav

		Internal_Audit_Effectiveness	Competence_of_Internal_Audit_Staff	Size_of_Internal_Audit_Dept	Mgt_Support_for_Internal_Audit_Dept	Relationship_between_Internal_and_External_Auditors	Independence_of_Internal_Audit
Internal_Audit_Effectiveness	Pearson Correlation	1	.027	.213*	.429**	.393**	.586**
	Sig. (2-tailed)		.759	.015	.000	.000	.000
	N	129	129	129	129	129	129
Competence_of_Internal_Audit_Staff	Pearson Correlation	.027	1	.081	.060	-.112	-.008
	Sig. (2-tailed)	.759		.363	.500	.206	.927
	N	129	129	129	129	129	129
Size_of_Internal_Audit_Dept	Pearson Correlation	.213*	.081	1	.155	.157	.248**
	Sig. (2-tailed)	.015	.363		.080	.075	.005
	N	129	129	129	129	129	129
Mgt_Support_for_Internal_Audit_Dept	Pearson Correlation	.429**	.060	.155	1	.546**	.467**
	Sig. (2-tailed)	.000	.500	.080		.000	.000
	N	129	129	129	129	129	129
Relationship_between_Internal_and_External_Auditors	Pearson Correlation	.393**	-.112	.157	.546**	1	.622**
	Sig. (2-tailed)	.000	.206	.075	.000		.000
	N	129	129	129	129	129	129
Independence_of_Internal_Audit	Pearson Correlation	.586**	-.008	.248**	.467**	.622**	1
	Sig. (2-tailed)	.000	.927	.005	.000	.000	
	N	129	129	129	129	129	129

*. Correlation is significant at the 0.05 level (2-tailed).

Correlations

[DataSet1] C:\Users\WIN_7\Documents\ Tests RAW DATA\Appendix I Questionnaire.sav

		Internal_Audit_Effectiveness	Competence_of_Internal_Audit_Staff	Size_of_Internal_Audit_Dept	Mgt_Support_for_Internal_Audit_Dept	Relationship_between_Internal_and_External_Auditors	Independence_of_Internal_Audit
Internal_Audit_Effectiveness	Pearson Correlation	1	.027	.213*	.429**	.393**	.586**
	Sig. (2-tailed)		.759	.015	.000	.000	.000
	N	129	129	129	129	129	129
Competence_of_Internal_Audit_Staff	Pearson Correlation	.027	1	.081	.060	-.112	-.008
	Sig. (2-tailed)	.759		.363	.500	.206	.927
	N	129	129	129	129	129	129
Size_of_Internal_Audit_Dept	Pearson Correlation	.213*	.081	1	.155	.157	.248**
	Sig. (2-tailed)	.015	.363		.080	.075	.005
	N	129	129	129	129	129	129
Mgt_Support_for_Internal_Audit_Dept	Pearson Correlation	.429**	.060	.155	1	.546**	.467**
	Sig. (2-tailed)	.000	.500	.080		.000	.000
	N	129	129	129	129	129	129
Relationship_between_Internal_and_External_Auditors	Pearson Correlation	.393**	-.112	.157	.546**	1	.622**
	Sig. (2-tailed)	.000	.206	.075	.000		.000
	N	129	129	129	129	129	129
Independence_of_Internal_Audit	Pearson Correlation	.586**	-.008	.248**	.467**	.622**	1
	Sig. (2-tailed)	.000	.927	.005	.000	.000	
	N	129	129	129	129	129	129

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

```
CORRELATIONS
  /VARIABLES=Internal_Audit_Effectiveness Competence_of_Internal_Audit_Department Size_of_Int
ernal_Audit_Dept Mgt_Support_for_Intern
   al_Audit_Dept Relationship_between_Internal_and_External_Auditors Independence_of_Internal_Au
dit
  /PRINT=TWOTAIL NOSIG
  /MISSING=PAIRWISE.
```

APPENDIX V: Regression Results

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Independence_of_Internal_Audit, Competence_of_Internal_Audit_Staff, Size_of_Internal_Audit_Dept, Mgt_Support_for_Internal_Audit_Dept, Relationship_between_Internal_and_External_Auditors[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Internal_Audit_Effectiveness

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.615[a]	.379	.354	6.292	.379	15.000	5	123	.000

a.Predictors:(Constant),Independence_of_Internal_Audit,Competence_of_Internal_Audit_Staff, Size_of_Internal_Audit_Dept,Mgt_Support_for_Internal_Audit_Dept, Relationship_between_Internal_and_Externa

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2968.913	5	593.783	15.000	.000[a]
	Residual	4869.056	123	39.586		
	Total	7837.969	128			

a. Predictors: (Constant), Independence_of_Internal_Audit, Competence_of_Internal_Audit_Staff, Size_of_Internal_Audit_Dept, Mgt_Support_for_Internal_Audit_Dept, Relationship_between_Internal_and_External_Auditors

b. Dependent Variable: Internal_Audit_Effectiveness

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	20.194	4.715		4.283	.000					
	Competence_of_Internal_Audit_Staff	.048	.375	.009	.129	.897	.027	.012	.009	.958	1.044
	Size_of_Internal_Audit	.198	.232	.063	.853	.395	.213	.077	.061	.930	1.075
	Mgt_Support_for_Internal_Audit_Dept	.548	.230	.208	2.388	.018	.429	.211	.170	.663	1.508
	Relationship_between_Internal_and_External_Auditors	-.072	.182	-.039	-.395	.693	.393	-.036	-.028	.513	1.949
	Independence_of_Internal_Audit	.765	.145	.497	5.278	.000	.586	.430	.375	.569	1.756

a. Dependent Variable: Internal_Audit_Effectiveness

Model			Independence_of_Internal_Audit	Competence_of_Internal_Audit_Staff	Size_of_Internal_Audit_Dept	Mgt_Support_for_Internal_Audit_Dept	Relationship_between_Internal_and_External_Auditors
1	Correlations	Independence_of_Internal_Audit	1.000	-.037	-.179	-.176	-.489
		Competence_of_Internal_Audit_Staff	-.037	1.000	-.081	-.129	.175
		Size_of_Internal_Audit_Dept	-.179	-.081	1.000	-.036	.000
		Mgt_Support_for_Internal_Audit_Dept	-.176	-.129	-.036	1.000	-.383
		Relationship_between_Internal_and_External_Auditors	-.489	.175	.000	-.383	1.000
	Covariances	Independence_of_Internal_Audit	.021	-.002	-.006	-.006	-.013
		Competence_of_Internal_Audit_Staff	-.002	.140	-.007	-.011	.012
		Size_of_Internal_Audit_Dept	-.006	-.007	.054	-.002	-1.675E-5
		Mgt_Support_for_Internal_Audit_Dept	-.006	-.011	-.002	.053	-.016
		Relationship_between_Internal_and_External_Auditors	-.013	.012	-1.675E-5	-.016	.033

a. Dependent Variable: Internal_Audit_Effectiveness

CollinearityDiagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	Competence_of_Internal_Audit_Staff	Size_of_Internal_Audit	Mgt_Support_for_Internal_Audit_Dept	Relationship_between_Internal_and_External_Auditors	Independence_of_Internal_Audit
1	1	5.653	1.000	.00	.00	.01	.00	.00	.00
	2	.184	5.543	.00	.08	.93	.00	.00	.00
	3	.126	6.711	.00	.77	.05	.00	.02	.01
	4	.019	17.323	.28	.15	.00	.04	.58	.00
	5	.011	22.846	.00	.00	.01	.27	.13	.85
	6	.008	27.337	.71	.00	.00	.68	.26	.14

a. Dependent Variable: Internal_Audit_Effectiveness

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	36.53	70.71	56.68	4.962	129
Residual	-16.672	21.673	.000	6.051	129
Std. Predicted Value	-4.062	2.828	.000	1.000	129
Std. Residual	-2.690	3.497	.000	.976	129

a. Dependent Variable: Internal_Audit_Effectiveness

APPENDIX VI: Common Method Bias Test (Variance)

Common Method Bias Test
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.361	20.350	20.350	9.361	20.350	20.350
2	4.417	9.603	29.953			
3	2.837	6.168	36.121			
4	2.064	4.487	40.607			
5	1.961	4.263	44.870			
6	1.885	4.097	48.967			
7	1.632	3.548	52.515			
8	1.337	2.907	55.422			
9	1.291	2.806	58.228			
10	1.231	2.676	60.903			
11	1.158	2.518	63.421			
12	1.087	2.364	65.785			
13	1.033	2.245	68.030			
14	1.012	2.201	70.230			
15	.941	2.046	72.277			
16	.882	1.917	74.194			
17	.844	1.836	76.029			
18	.780	1.695	77.725			
19	.763	1.658	79.383			
20	.698	1.517	80.900			
21	.691	1.501	82.401			
22	.659	1.434	83.835			
23	.616	1.340	85.175			
24	.579	1.258	86.433			
25	.539	1.172	87.605			
26	.522	1.135	88.740			
27	.498	1.082	89.822			
28	.482	1.048	90.870			
29	.405	.880	91.750			
30	.377	.819	92.569			
31	.352	.765	93.334			
32	.333	.724	94.058			
33	.329	.715	94.773			
34	.312	.678	95.451			

35	.273	.594	96.045			
36	.253	.549	96.595			
37	.230	.500	97.094			
38	.211	.458	97.552			
39	.202	.439	97.991			
40	.178	.387	98.378			
41	.170	.370	98.748			
42	.154	.336	99.083			
43	.125	.272	99.356			
44	.115	.249	99.605			
45	.095	.206	99.811			
46	.087	.189	100.000			

Extraction Method: Principal Component Analysis: Researchers Field Work

Common Method Bias Test

Communalities

	Initial	Extraction
Internal audit improves organizational performance	1.000	.134
Internal audit reviews operations and programs to ascertain whether results are consistent with established objectives and goals	1.000	.135
Internal audit determines the adequacy and effectiveness of the organization's systems of internal accounting and operating controls	1.000	.147
Internal audit reviews the accuracy and reliability of financial reports	1.000	.427
Internal audit reviews the compliance with policies, plans, procedures, and regulations	1.000	.169
Internal audit reviews the compliance with applicable external laws, and regulations	1.000	.207
Internal audit reviews the means of safeguarding assets	1.000	.182
Internal audit evaluates and improves the effectiveness of risk management	1.000	.184
Internal audit reviews the economic, effective and efficient use of resources	1.000	.356
Internal audit evaluates the internal control system	1.000	.283
Internal audit makes recommendations for improving the internal control system when appropriate	1.000	.164
Internal audit improves the organization's productivity	1.000	.177

Internal audit develops appropriate annual audit plans	1.000	.285
Timely action is taken to implement the recommendations of the internal audit report	1.000	.101
Internal audit provides adequate follow-up to ensure that appropriate corrective action is taken and that it is effective	1.000	.241
Is your educational qualification up to HND/BSC?	1.000	.030
Do you have recognized professional qualification e.g. ICAN/ANAN	1.000	.003
Your internal auditing experience	1.000	.003
Annual participation in continuous professional development program	1.000	.001
Number of staffs in your internal audit department	1.000	.062
Senior management supports internal audit to perform its duties and responsibilities	1.000	.170
Senior management are involved in the internal audit plan	1.000	.125
Internal audit provides senior management with sufficient, reliable and relevant reports about the work they perform and recommendations made	1.000	.129
The response to internal audit reports by the senior management is reasonable	1.000	.202
Internal audit department is large enough to successfully carry out its duties and responsibilities	1.000	.144
Internal audit department has sufficient budget to successfully carry out its duties and responsibilities	1.000	.045
Internal audit department has right attitude towards external auditors	1.000	.253
Internal audit department coordinates issues such as mutual interest and audit plan external auditors	1.000	.320
Where appropriate external auditors' rely on the work of the internal audit	1.000	.342
Internal audit department meets with external auditors as frequently as required.	1.000	.240
Internal audit department shares working papers with external auditors	1.000	.337
Management of my organization tries in promoting the relationship between these two parties (internal and external auditors)	1.000	.224
Internal audit staff are sufficiently independent to perform their professional obligations and duties.	1.000	.356
The head of internal audit reports to a directly chief executive of the organization that allows the internal audit to fulfil its responsibilities	1.000	.360

Internal audit provides adequate follow-up to ensure that appropriate corrective action is taken and that it is effective	1.000	.347
The internal audit department has direct contact with senior management other than the finance director	1.000	.307
Conflict of interest is rarely present in the work of internal auditors	1.000	.029
Internal auditors rarely face interference by management while they conduct their work	1.000	.028
Internal audit staffs have free access to all departments and employees in the organization.	1.000	.262
The office of the auditor general approves the appointment and replacement of the head of internal audit not the management	1.000	.330
Internal audit staff are not requested to perform non-audit functions	1.000	.208
Staffs in my internal audit department have a good organizational risk mitigation skills	1.000	.252
Staffs in my internal audit department have a good understanding of risk assessment processes	1.000	.274
Staffs in my internal audit department have excellent organizational risk reduction skills	1.000	.260
Staffs in my internal audit department have a good projects risk evaluation skills	1.000	.265
Staffs in my internal audit department have skills in risk aggregation analysis	1.000	.262

Extraction Method: Principal Component Analysis.