

**INTERNAL AUDIT FUNCTIONS AND FINANCIAL ACCOUNTABILITY:
EVIDENCE FROM TERTIARY INSTITUTIONS IN KANO STATE-
NIGERIA.**

BY

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DECLARATION

I hereby declare that this work is the product of my research efforts undertaken under the Supervision of Dr Sadiq Rabiul Abdullahi and has not been presented anywhere for the award of a degree or certificate. All the sources have been duly acknowledged.

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CERTIFICATION

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ABSTRACT

Internal audit is said to be the engine room for the quality performance of any organization; however, to ensure an effective internal control system in the organization, there has to be accountability in their cash flow, asset and liability verification and validation among other internal audit functions. Thus, the study is aimed at examining the impact of internal audit functions on the accountability of tertiary institutions in Kano State, Nigeria. Data were collected from respondents drawn across the tertiary institutions in the state. Descriptive statistics, Pearson's correlation matrix and ordered logistic regressions were utilized as analytical tools in the study. The results indicate a positive and significant impact of internal audit functions as measured using internal control system review; compliance with established policy, plans and procedures; assets and liability verification on financial accountability (transparency, responsibility and answerability) hitherto, for a 1% increase in internal audit functions in the tertiary institution in Kano state. There is an approximate increase of 25% in their level of accountability while all other factors held constant. Therefore, it was concluded that internal audit functions highly and significantly impact on the accountability of tertiary institutions and is directly proportional. The practical implication of the finding is that, the more tertiary institutions strengthen their internal audit functions, the more accountable and productive they are. It is recommended that, to enhance a greater sustainable impact of internal audit function on accountability in the tertiary institutions, audit independence should be more strengthened through adequate staff career and professional development activity, more management support and adequately staffing of the audit unit.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Internal Auditing is meant to enhance the quality and reliability of financial statements through the deterrence of the manipulation or misrepresentation of accounting information in order to promote public confidence in the affairs of an organisation. Ultimately, this will enhance the overall performance of the reporting entity. Internal Auditing is a process that involves an independent appraisal or review carried out within an organization on the accounting, financial or any other related operations with a view to providing protective and constructive services to the management (Suleiman, 2015).

Internal audit is an independent appraisal function within an organization for the review of the system of control and the quality of performance as a service to the organization (Millichamp, 2005). Ejoh and Ejom (2014) viewed it as a first line of action for the effective management and accountability of tertiary institutions having an appropriate Internal Audit unit well-structured in an organization, support from the board of directors or the chief executive officer. The audit committee and co-operation from the Audit staff who are in the best position to note, detect and report any inappropriate accounting practice will enhance internal audit functions.

Internal audit function (IAF) has been described as an indispensable control mechanism within a business (Okolo, 2001). According to Kayode (2000) and Cohen Sayag (2010), IAF is considered as an important governance tool designated to protect both public and private sector organizations from the criminal behaviour of its employees. Internal audit

functions are strongly influenced by internal audit quality and management support (Mihret & yismaw, 2007). Internal audit quality is enhanced by internal audit unit independence and objectivity (Badara, 2012). From these, it can be deduced that the internal auditor is an employee of an organization whose work is to ensure that the internal control system is working effectively and report back to the management as a means of ensuring accountability. The function of Internal Audit towards institutional Accountability is very vital.

Accountability involves revealing, explaining and justifying what one does or how one discharges his responsibility effectively (Gehya, 2014). Similarly, Millichamp (2005) viewed accountability as the hallmark of modern democratic government where those in power must be held accountable for their decisions, policies and expenditure. It is a complement of public management. According to Gehya (2014), accountability is segmented into three categories, namely: Financial accountability, Administrative accountability and Political accountability. The focus of this research work is centered on the financial accountability of tertiary institutions.

It is important to appreciate the fact that, for tertiary institutions (private or public) to achieve their desired objectives effectively, the management must establish an effective internal audit function, which would be able to furnish the management of the institutions with necessary analyses, appraisals and recommendations for onward decision and strategic policy making towards enhancing overall productivity and accountability.

Adequate financial reporting and accountability is paramount to the growth and development of any institution. The main objective of financial reporting is to provide adequate and useful information for proper planning, control and decision making that will

aid in achieving organizational short term and long term goals (Gehya, 2014). This can be achieved where the information received is understandable, timely, accurate, complete and comparable (Mihret & yismau, 2007).

Internal auditing has become a true profession that is capable of influencing the management of public finance. In view of this, it is appropriate for any organization to have an effective control system of accounting by having internal audit unit in-place for good monitoring and check against the financial statements, ensures compliance with statutory requirements and safeguards the asset of the company. Due to the increasing demand for change, good governance, transparency and accountability in public sector, it is important to revise internal auditing practice to assess adequacy, reliability, efficiency and effectiveness of other controls which entails procedures, standard and budgeting system (Gehya, 2014).

In public tertiary institutions today, there are lots of abandoned projects, poor facilities coupled with white elephant projects which are of no benefits and diversion of funds from one sub-heads to another (Gehya, 2014). It is upon this ground that the study intends to examine the importance of internal auditing in enhancing accountability. Internal audit function on the accountability of tertiary institution is attainable by efficient and qualitative auditing of accounts which should be carried out with utmost independence and the best support that management can offer internal audit department is allowing it to operate with reasonable degree of independence.

Kano state is one of the most populous state in the country and its nicknamed 'the centre of commerce'. Aside being a commercial state, this state is also one of the most industrial in Northern Nigeria. This state houses a lot of educational tertiary institutions ranging from

Colleges of Education, Polytechnics, Universities and research institutions. Kano has a total of 4 Universities out of which one is owned by the federal Government, one is owned by private entities and the remaining Two are State owned. In addition, Kano has a total of 12 Colleges and a Polytechnic. The above feature of Kano shows how significant it is when researchers tries to draw conclusions on the study of tertiary institutions and her impact in the overall growth of the institutions, the states and the country in general.

In the context of tertiary institutions in Kano state, a broad clue about the importance and contribution of internal audit functions on accountability is very vital even though internal auditors have many roles and contributions to the institution and the public interest at large. In addition, it faces many challenges from the institution; some of the challenges include lack of management support, inadequate internal audit independence and being ignored (conflict of interest) and lack of professional development, among others. The management of tertiary institutions in Kano state should be clearly responsible for defining the roles of internal audit unit and ensuring that it has an appropriate level of authority and independence, including the right to report to the highest authority. To enhance effective accountability in those tertiary institutions, there has to be effective internal control system review, asset and liability verification and validation. For the tertiary institutions to have successful accountability, a well-designed internal auditing system must be put in place to enhance transparency, fund utilization and answerability- a sound reporting system of such institution. Thus, the study is aimed at examining the impact of internal audit functions on accountability in tertiary institutions in Kano State.

1.2 Statement of the Research Problem

This study assesses how internal audit functions (particularly internal control system reviews, compliance with established plans/procedure/policies and asset and liability verification) impact on the accountability of tertiary institutions in Kano State. Special consideration is also given to management's perception on IAF, management support, organizational independence and adequate competent internal audit staff and to observe their influences on the effectiveness of internal audit Function and effects on the weakness in internal audit functions in the tertiary institutions.

Auditors in tertiary institutions in Kano state do not enjoy the necessary management support and cooperation due to the negative perception about internal auditors. They are seen as mere employees that cannot make decisions against the will of the management. Effective accountability in the management of tertiary institutions is nothing but a “mirage” because of the general weakness in internal audit functions and the negative impression among public sector management that internal auditors do not have the liberty to exercise an unbiased and independent activity (Ejoh & Ejom, 2014). Dambatta (2004) viewed the weakness of internal audit as a result of lack of independence and that there is a growing body of evidence, which suggests serious deficiencies in the accountability and transparency in some Nigerian universities. In-effective internal audit functions result in the inadequate accountability of tertiary institutions and occur due to inadequate management cooperation, absence of a sound Audit Committee as well as faulty internal control system review. These particularly result in the gradual disintegration of the affected institutions, thereby making them more vulnerable to waste, corruption and inefficiencies (Ejoh & Ejom, 2003; Dambatta, 2004; Moddibo, 2015).

In some Colleges of Education in Kano state, the internal audit staff are organized inefficiently with low technical staff proficiency; in institutions like Audu Bako College of Agriculture and College of Arts, Science and Remedial Studies, they do not prepare strategic plans to conduct their activities to produce effective internal audit output to their organizations. Negligence of office duty, a non-challant attitude, non-conducive working environment and lack of progressive career structure of audit staff severely affect the efficiency of internal audit (Mihret & Yismaw, 2007; Arena & Azzone, 2009; Cohen & Sayag, 2010).

Moreover, other worrisome factors affecting financial accountability in some of the tertiary institutions under study include non-compliance with established policies and procedures and inadequate asset and liability verification. Some of these problems were actually discovered in some tertiary institutions in Kano state, especially colleges of education. Accountability for better results is imperative, but the kind generally practiced in our tertiary institutions will not help to improve performance. The current system of accountability in our tertiary institutions can best be described as cumbersome, over-designed, confusing and inefficient (Ezeani & Oladele, 2012). It fails to answer key questions; it overburdens policy makers with excessive, misleading data and overburdens institutions by requiring them to report it (Gehya, 2014).

Several researches were conducted on internal auditing functions Cohen & Sayag (2010) conducted a study on the effectiveness of internal auditing in Israeli organizations but failed to identify the impact of the internal audit functions and instead studied internal audit effectiveness. Similarly, Ezeani and Oladele (2012) tried to find out what school audit (in a secondary school) is all about, the role of audit and the difference it can make towards

accountability, especially in school administration but then also did not focus on tertiary institutions of learning. While Onatuyeh and Aniefor (2013) studied on public sector management and accountability in Edo State and limited their study to 12 government ministries and parastatals in Benin City. But they did not cover tertiary institutions of learning. Tijjani (2003); Dambatta (2004); Ejoh & Ejom (2014) and Moddibo (2015) limited their works to few tertiary institutions in Kano, Cross –River and Adamawa states respectively. They however, pay attention to few Colleges/ Universities as tertiary institutions or ministries in their respective states of research whereas no attention was paid to Polytechnics. This study seeks to improve upon theirs by choosing a wider coverage of all tertiary institutions within Kano state, that is, Universities, polytechnics and colleges of education which cut across all the categories/forms of tertiary institutions. Even though Dambatta (2004) studied the fiscal transparency and accountability in Bayero University and Akosile (2013) carried out a comparative assessment of internal auditing functions in public and private universities in Nigeria, both works, however, did not focus on the impact of internal audit functions on the accountability of the tertiary institutions and as well did not cover Polytechnics and colleges of Education.

Ejoh and Ejom (2003), Onatuyeh and Aniefor (2013), Onoja, Michael and Friday (2013), Shewamene (2014) and Moddibo (2015) all limited their analyses to cross tabulations and Chi-square methods, except Onatuyeh and Aniefor (2013), who included Spearman rank order correlations coefficient and descriptive statistics in their analysis. But this research used some of their methods with a more advanced technique, that is, Ordered Logistic regression analysis.

To the best knowledge of the researcher, this study differs from the previous studies based on the fact that none of them used financial accountability in tertiary institutions as the dependant variable. Therefore, this study extended the literature by examining the impact of internal audit functions (with these variables as proxies: Internal control system review, Compliance with management policy and Asset and liability verification. and Financial Accountability with these variables as proxies: answerability, transparency and responsibility.

The researcher employed a different technique of analysis that is more advanced (ordered logistic regression analysis) was used to examine the gathered data as against simple percentages, chi-squares and descriptive statistics that are generally used by several related researches.

This study also conducts a separate research on Internal Audit Independence to enhance clearer understanding of Audit Independence as a major phenomenon that is greatly capable of influencing Internal Audit Functions. By so doing, it is expected that a more valid judgment and recommendation can be drawn by the work on how to generally boost accountability of our tertiary institutions. No research to the best knowledge of the researcher has married IAF and Accountability and simultaneously examined internal audit independence on tertiary institutions.

1.3 Objectives of the study

The aim of this study is to assess the impact of internal audit functions on the accountability of tertiary institutions in Kano state. In line with this, the specific objectives of this study are: to

- I. Evaluate the impact of internal control system review on accountability in tertiary institutions in Kano State.
- II. Assess how internal audit investigation on compliance impacts on accountability in tertiary institutions in Kano.
- III. Assess the effect of asset and liability verification on accountability in tertiary institutions in Kano State.

1.4 Research Questions

In the light of the foregoing argument that the study raises, the following research questions are intended to be addressed:

- I. How does internal control system review impact on accountability in tertiary institutions in Kano State?
- II. How does audit investigation on compliance impact on accountability in tertiary institutions in Kano State?
- III. How does asset and liability verification impact on accountability in tertiary institutions in Kano State?

1.5 Scope and Limitation of the Study

This study examines the impact of internal audit functions, especially on how asset and liability verification, internal control system review and compliance with plans and procedures impacts on financial accountability, particularly in the area of responsibility, answerability and transparency with particular reference to Kano state tertiary institutions. It should be noted that all the tertiary institutions used are government (federal or state) and not privately owned. The study covers the staff of Audit and Bursary/Finance units and top management of all the 12 Government tertiary educational institutions comprising Bayero

University, North West University, Kano State University of Science and Technology Wudil, Kano State Polytechnic, Federal College of Agric Produce Technology, Hoto, Nigeria Police Academy, Wudil, Federal College of Education , Federal College of Education Technical, Bichi, Sa'adatu Rimi College of Education, Aminu Kano College of Islamic and Legal Studies, Audu Bako College of Agriculture and College of Art , Science and Remedial Studies, all in Kano state. Staff of other units in the institutions, however are not captured for this research work; the data that were obtained from the institutions mainly from their 2016 records.

Though this research has provided some useful insights into internal audit functions and accountability in the tertiary institutions in Kano state, the under 7-listed limitations should be noted:

- 1.) The study was restricted to public tertiary institutions in Kano state, even though there are both private and public tertiary institutions there. Thus, the use of public tertiary institutions in Kano state limits the generalization of the results.
- 2.) Since the research was conducted in public tertiary institutions in Kano state, it is questionable whether its findings can be generalized to other states in Nigerian due to the differences among the states and the administrations that form the Nigerian tertiary institutions. However, due to the nature and contributions of tertiary institutions in Kano state to the Nigerian educational sector, this study is to a large extent a reflection of other tertiary institutions.

1.6 Significance of the Study

This study in a bid to come up with facts about the impact of internal audit functions towards accountability in tertiary institutions in Kano state will go a long way towards ensuring that contemporary internal control system reviews and well-functioning internal audit systems are meant to deliver key assurances to all stakeholders against corruption, waste and inefficiency in public service. The study seeks to ensure that the goal of internal audit functions is to add value and enhance the effective / efficient audit of accounts and the proper reporting of the activities of tertiary institutions. It is highly significant to the various stakeholders of tertiary educational institutions in the country as a whole: to the managements of tertiary institutions, it would help them, among others, to appreciate the need to have better perception about internal audit function and accord the internal audit unit with a high degree of autonomy/ independence as an unavoidable cog in the wheel of progress. Internal auditors and employees of the internal audit units would find this study useful, as it would expose them more to their roles, functions, duties, responsibilities and any non-compliance activity in line with the established policies, plans, procedures, laws and regulations set by the institution, which could have a significant impact on the It's operations.

This research will reveal facts that internal auditors actually need more technical staff proficiency, conducive working facility, staff re-orientation /development and the right/ ability to assess all information in every part of the organization and that their function lies in every activities of the corporate governance of the tertiary institutions. Also, this work is of significance in trying to remedy research gaps in some previous related works, such as:

Ejoh and Ejom (2003); Tijjani (2003); Dambatta (2004); Onatuyeh and Aneifor (2013); Shewamene (2014) and Modibbo (2015), to mention a few.

The research work will help to identify the weaknesses in internal control system reviews, plans, policies and procedures and proffer ways to facilitate the implementation of a risk management strategy as well as contribute to the appropriateness of procedures and operations of the audited accounts and hence implement major policies and objectives towards bringing systematic discipline to all Internal Control Systems, avoid unnecessary failure and save operating and administration costs in accordance with the organization's policies and procedures and in the end enhance the financial accountability of the tertiary institutions.

Furthermore, this study can provide useful information to academicians and future researchers who want to study about the related issues as well as serve as reference material , thereby extending the frontiers of knowledge in the area.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature on the impact of internal audit functions on the accountability of tertiary institutions in Kano State, Nigeria. It reviews the conceptual, empirical and theoretical literature on the internal audit functions and accountability and present concisely the analysis as well as the findings of previous related studies.

2.2 The Concept of Auditing

Auditing is an independent examination and the expression of an opinion on the financial statements of an enterprise by an appointed auditor in accordance with his terms of engagement and the observance of statutory regulations and professional requirements (Dandago 1999 and Mainoma 2007). According to Dandago (2002), auditing is an examination by an auditor of the evidences from which the final revenue accounts and balance sheets of an organization have been prepared in order to ascertain that they present a true and fair view of the summarized transactions at the end date, thus enabling the auditors to report thereon. Feizizadeh (2012) and Kayode (2000) defined auditing as the independent examination and investigation of the evidence from which a financial statement has been prepared with a view of enabling the independent examiner to report on whether his own opinion, according to the information and explanation obtained by him, the statement is properly drawn up and gives a true and fair view of that which is supposed to show and if not to report in what respect he is not satisfied. The Auditing Standard (2004) defined auditing as the independent examination of an expression of opinion on the

financial statement of an enterprise by an appointed auditor in pursuance of that appointment and compliance with any relevant statutory obligation.

From this definition, it can be deducted that auditing is the process of accessing the financial statement of an organization to which the person undertaking the task is not a member with the aim of ensuring that these financial statements were truly prepared from actual records of financial transactions. Olawn (2001) defined internal audit as an independent appraisal function established within an organization to examine and evaluate its activities as a service to the management of the organization. Internal auditing can also be seen as an internal appraisal that functions within an organization and which would review activities as a service to all the levels of management (Al-Twajjri Brierley & G william, 2003). Adeniyi (2004) and Tijjani (2003) encapsulate internal auditing as a review of various operations of the company and of its records by the staff specially appointed for this purpose.

The basic function of the audit is to assess the true and fair of any financial records to detect the nature, timing and extent of the accounting system. In the aspect of internal control system, it determines how management policies are carried out in accordance with accounting principles. In terms of the verification of assets, it helps to verify the asset of the organization concerned with the determination of value ownership and possession of the asset. Audit also significantly helps in Liabilities Verification, determination of Capital and revenue and the confirmation of the valuation of liabilities and asset as well as writing a clear or qualified report.

2.3 The Concept of Internal Auditing

The institute of internal auditors (IIA, 2001) defined internal auditing as an independent objective assurance and consulting activity designed to add value and improve the organization's operations. Internal auditing is a systematic objective appraisal by internal auditors of the diverse operations and controls within an organization to determine whether financial and operating information is accurate and reliable, risks to the enterprise (or organization) are identified and minimized, external regulations and acceptable internal policies and procedures are followed, satisfactory operating criteria are met, resources are used efficiently and economically and the organization's objectives are achieved (Mihret & Yismaw, 2007; Shewamene, 2014).

The goal of internal audit function should be to add value and improve an organization's operations and control structure. Effective and efficient audit of accounts ensures the proper reporting of the activities of an organization (Okezie, 2008; Aruwa, 2003). Therefore, it can be opined from the above views that internal auditing can serve an independent appraisal function within an organization for the review of the system of control and the quality of performance as a service to the organization. Internal auditing is a systematic and an independent objective appraisal, designed within an institution to review the internal control system, ensure adequate asset and liability verification and enhance compliance with the plans, policies and procedures of an organization, so as to pursue a clear, fair and reliable financial statement in an institution. It can also be seen as that which ensures that funds have been expended in accordance with the terms by which such monies were appropriated and that accounts have been properly prepared.

2.3.1 The scope and objective of the internal auditor

The scope and objective of an internal auditor vary widely depending on the size and structure of management of the organization. According to Adeniyi (2004), management is responsible for the establishment of accounting and internal control systems. Often, internal audit is assigned a specific responsibility for reviewing the design of the systems, monitoring their operations and recommending improvement. Similarly, Millichamp (2005) identified the responsibilities of the internal auditor as: review of accounting system and internal control, examination of financial operation information for management and reviewing the implementation of corporate policies, plans and procedures as the broad areas of internal audit. Owler and Brown (1999) are of the view that the objective of internal auditor is to protect management against errors of principles and neglect of duty. Azubike (2005) opined that the internal auditor has the role to prevent corruption and support the good governance practices that enhance accountability. It is evident that the role of the internal auditor is paramount to the success of every organization, as the internal auditor gives assurance and control measures in order to correct abnormalities in the financial system of the organization, thereby enhancing accountability of owners fund through internal auditor reports.

2.3.2 The components of internal audit

Undoubtedly, if all the components of internal audit in an organization as mentioned below are effective and efficient, the internal audit functions of such an organization will be highly efficient and lead to an overall increase in goal attainment and the general accountability of such an organization.

The components of internal audit, according to Millichamp (2005), are independence, staffing and training, relationship, due care, planning, system control, evidence and reporting.

Independence – internal auditors are employees of the organization and thus independence is not always easy to achieve. However, it can be assisted by having an unrestricted access to records, assets and personnel and an objective frame of mind (Millichamp 2005). The Internal auditor in institutions should have the independence which permits the performance of duties objectively.

Staffing and training – the internal auditor should be appropriately staffed in terms of numbers, experience and grade, having regards to responsibilities and objectives (Rafiu, 2007). Onoja (2013) is of the view that the major ways of avoiding the circumvention of control is by ensuring that the internal audit department is effectively and adequately staffed. Training is paramount to the efficiency and effectiveness of the internal auditor and audit unit staff in order to enhance professionalism in discharging their duties and responsibilities.

Relationship – there should be a control relationship between the internal auditor, the audit unit staff, the audit committee, external auditors and management consultants in order to enhance the free flow of communication. According to Millichamp (2005), the internal auditor should foster a constructive working relationship and mutual understanding where appropriate. This should be seen as a goal.

Due care – the internal auditor should exercise due care in fulfilling his responsibilities. An internal auditor should behave much as an external auditor in terms of skill, care and

judgment (Millichamp, 2005). He further stated that the internal auditor should have standard of technique, knowledge, honesty, probity and integrity as much as that of the external auditor. He should maintain ethical and technical standards as specified by the auditing professional body.

System control – the internal auditor who is accountable to the management must ensure the adequate verification of the operations of the systems and adequate control, which serves as the basis for evaluating and reporting (Rafiu, 2007). These controls will aid the auditor in his investigation, recording and identification of the weaknesses, which must be reported to the management.

Planning – the internal auditor who is directly responsible to the management must adequately plan, record and control his work by identifying the objectives of the organization, the internal auditor's objective, the risk involved, the major systems in the organization, staff strength and the strength and weakness in the internal control system of the organization. According to Nwachukwu (2006), the internal audit plan may include: financial auditing, compliance audit, such as compliance to laws, regulatory requirements the internal policies and procedures of the management and operational auditing, which focuses on the organizational mission, vision and objectives

Evidence and Reporting – the internal auditor should carefully obtain sufficient, reliable and relevant evidence in order to produce timely, accurate and comprehensive reports, so as to arrive at reasonable conclusions and recommendations where necessary to the management.

2.3.4 The Internal Audit Function.

Internal Audit function is an independent, objective assurance and consulting activity designed to add value and improve the institution's operations. It helps it to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes (Gbabarro, 1992).

Joyce (2011) suggested that, when properly designed and implemented, the internal audit function can play a key role in promoting and supporting effective organizational governance to provide the oversight of risk and control processes administered by management.

The nature of the work of the internal audit functions, according to Audit Standard (2010), is to evaluate and improve the effectiveness of the following three processes: Risk management processes— the identification and evaluation of potential risks that might affect the achievement of the objectives of an organization and the determination of adequate corrective actions. A link can here be made to critical success factors. Control processes— policies, procedures and activities which ensure that risks are kept within the limits defined by management in the risk management process. Governance processes— procedures which allow stakeholders to evaluate risk and control processes defined by management.”

The internal audit function can thus contribute both by evaluating the systems' functioning and reliability (assurance services) and supporting the design of these systems by providing specific recommendations (consulting services). The services actually provided by the internal audit function depend on their positioning in the organization as well as on its

intended function (Johnson, 2004). The internal audit function can then assume an important role as an in-house advisory function that offers analyses and assurance to the board as to the functioning of the risk management and internal control systems (Joyce, 2011).

Internal audit can contribute to effective governance in several ways. First, it can assist in the identification of risk factors and the analysis of the consequences, as well as in assisting management in the prioritization of risk management and control systems. Internal audit can add assurance that the risk management processes are functioning as intended. Through consulting services, the internal audit function can furthermore assist management and the board by improving risk management and control process. The role of internal audit function in any organization is very crucial. It is mainly to support management, the audit committee, the board of directors, the external auditors, and other key stakeholders to achieve organizational goal.

2.3.4.1 The Internal Audit Function in the Public Sector

The nature and position of the internal audit department in government may differ from one country to another and even from one organization to another. The law requires the establishment of internal audit department in each government office in Nigeria, to be headed by an experienced or/and a qualified accountant in order to provide a complete and continuous audit of the accounts and records of all received and expenses (Aruwa, 2003).

The internal audit is a service department and as such, it is essential that it should not be connected to the finance and account unit ideally; the head of the internal audit should belong to top management (Aguolu, 2009; Belay, 2007; Mainoma, 2007 & Mahmud, 2007). However, governments' ministries and departments should periodically measure their internal audit function to ensure that it is operating in accordance with best practices and

principles (Glance, 2006). Thus, the motives behind the establishment of an internal audit unit, as already noted, is to promote accuracy and reliability in accounting and operating data, safeguarding government resources in order to prevent resources embezzlement and fraud and also determine the extent of compliance with the relevant government laws, policies and procedures established within the various departments as well as ensure proper and judicious resources utilization (Glance, 2006; Mainoma, 2007; Sani, 2009). Furthermore, in the aspect of professionalism, it is usually handled by the professional bodies, such as ICAN and ANAN through the Nigerian Standard on Auditing (NSA) (Aruwa, 2003).

However, the role of internal audit function in the public sector, in an ideal situation, should be generally similar to that of the private sector irrespective of the size and nature of the services rendered but may differ in terms of independence , staffing , work environment and even audit committee formation and role. In terms of which is more effective between audit in public and private sectors, this is dependent on several factors, for instance, the public sector is operated by the government and is not for the financial profit of its owners.

2.3.3.2 The Roles of Internal Audit Functions

The role of internal audit functions in any organization is to evaluate and improve the effectiveness of risk management processes, internal control system review, asset and liability verification and compliance with the plans, policies and procedures of an organization. The internal audit function is responsible for developing and implementing the institution's internal audit strategy and a risk based internal audit annual work plan. The primary role of the internal audit function is to provide objective and relevant assurance

services to the institution's (and its stakeholders) in light of the institution plan and risk profile (Thompson & Strickland, 2001).

Internal audit functions enhance performance (improvement) also known as operational engagement, Performance (improvement) engagement is designed to assess the economy, efficiency and effectiveness of the institution's business systems and processes (Ntongo, 2012).

The secondary role of the Internal Audit function is to provide objective and relevant advisory consulting services without assuming management responsibility. Internal Audit advises the institution's management on a range of matters, including: the development of new programs and processes; risk management and fraud control (Gbabarro, 1992). Internal auditors must establish an understanding with consulting engagement clients about objectives, scope, respective responsibilities and other client expectations. For significant engagements, this understanding must be documented (Koontz & Weihrich, 1989). Internal audit should apply the principle that issue prevention activities are more beneficial and could be more cost-effective than issue detection activities. Accordingly, Internal Audit will act proactively in providing ad hoc advice or formal consulting services to utilize its control and risk evaluation skills in preventing control weaknesses and breakdowns, as well as detecting control weaknesses and breakdowns in assurance activities (Gbabarro, 1992).

The tertiary role of the Internal Audit function is to conduct the following audit support activities: assisting the Audit Committee to discharge its responsibilities, including facilitating Audit committee reports to the institution's Council; monitoring the implementation of audit recommendations made by Internal Audit; managing the contracts with and assessing the performance of the co-sourced service partners; performing any

appropriate special tasks or projects requested by the institution's leadership and the Audit Committee, and disseminating better practice and lessons learnt arising from the internal audit activities across the institution (Nwachukwu, 2006).

Actually, the management or organization determines the extent of the role of internal audit functions. This mainly involves assurance activities, risk management, fraud control and establishing the ownership and possession of public asset as well as internal control systems review.

2.4 Internal audit functions and financial accountability in tertiary institutions.

In order to analyze what the internal audit function can offer, it is important to understand the needs and expectations of the internal and external decision makers toward the internal audit function. Also, different departments of a tertiary institution require internal audit functions in different ways, for example, management, account units, internal controls, board of directors and other stake-holders (Nwachuckwu 2006). Management typically highlights and defines the objective of the internal audit to focus primary on assuring needs for assurance services and monitoring and supervisory role in order to prevent and safeguard the misappropriation of assets and organizational resources (Adesola 2002). This in-service can be achieved by audit, by ensuring that due process is followed and the authorization and implementation of affairs are in accordance with the laid down rules and regulations , thus risk is highly managed. The existence of the internal audit function does not diminish the responsibilities of the institution's leadership and management team to implement and maintain effective systems of internal control (Belay 2007).

On the other hand, the role of the internal audit on financial accountability is to ensure a true and fair financial statement of the institution and provide assurance service to third parties. The Internal Auditor should verify the authorization execution of cash flow and ascertain that resources are used efficiently and misappropriation should be checked through investigations even up to the third party. The Internal Auditor should ensure that records are prepared and kept in accordance with the accounting principles. In addition to this, audit is to prevent and detect error or fraud and ascertain the accuracy and completeness of accounting records (Adesola, 2002; Mahamud & Kama-sahayak, 2007). Obviously, different parts of the institution have different desires for assurance and thus need for different internal audit services. Therefore, the management or organization determines the Internal Audit roles (Van, 2005).

Internal audit function encompasses the review of all the financial and non-financial policies and operations of the tertiary institution. Internal audit reviews may cover any of the programs and activities of the institution (Walker & Lawler, 1982). Monitoring tactics of internal audit functions vary by organization, but methods share a common objective: to evaluate whether the components of the governance framework are operating as intended and provide reporting to various levels of the organization. At the most fundamental level, monitoring systems look at “what is” versus “what should be.” To identify gaps, organizations employ a variety of monitoring functions, including internal auditors, regulatory or legal compliance officers, ethics officers, internal management reporting and self-assessments (Gbabarro, 1992).

With better integration among monitoring functions, methodologies and systems, tertiary institution’s leaders receive more relevant reports, thereby enabling them to take corrective

action promptly. Effective integration contributes to better-trained individuals and enhances reporting capabilities and operational efficiencies.

2.5 The Concept of Internal Control and Internal Checks

The Internal Control System are basically measures and procedures to ensure internal audit review, proper accounting system, compliance with laid down rules and procedures, verification of assets and any other organizational set up for effective and efficient management of organizational resources. While internal checks are meant to cross examine internal control activities. It is also meant to prevent and detect fraud and other in-balances/errors. Okereson (2013) and Robertson (2006) referred to internal control not as internal audit and internal check but as the whole system of control, financial or otherwise, established by the management in order to carry on the business of the enterprise in an orderly and efficient manner, ensure adherence to management policies, safeguard assets and secure as far as possible the completeness and accuracy of records. Millichamp (2005) has the same view with the others but went ahead to elaborate on each phrase used in the definition such as:

The Whole System: a system is a combination of every parts of the organization. The internal control system covers all the measures of methods employed in ensuring the authorization, approval and control of documents, the restriction of unauthorized access to company's assets and books and compliance with relevant laws, standards and guidelines (Belay 2007).

Financial and Otherwise: the internal control system involves administrative accounting control and physical controls. He emphasized that financial could include the use of control

accounts, which are principally concerned with safeguarding assets and providing assistance that the financial statements and the underlying accounting records are reliable and otherwise may include physical access restrictions to computer terminals, cash office and store (Nwachukwu 2007).

Adherence to Management Policies: for an entity to achieve its set target, management policies must be adhered to. These could be policies with respect to investment and divestment, depreciation and amortization, appointment and promotion and pricing and selling (Okerson 2013).

Safeguarding the Assets: Okerson (2013) stressed that allowing assets to be damaged, mishandled, wasted or stolen is unacceptable and procedures are always devised to safeguard them.

Accuracy of Records: he states that this is to ensure that proper and adequate procedures are in place to capture and record all financial transactions.

Accountability: According to Robertson (2006) the directors are the agents of the shareholders and their performance needs to be evaluated; the internal auditing department must perform certain functions, which must be in line with the requirement of the company or organizations' internal control system. Some of the functions are enumerated below:

To ensure the safety of the organizations' assets: it is the role of audit to ensure proper checking and verification of assets. To review the internal control system: to detect error and lapses with the aim to improving the operating system. To ensure that management policies are executed: by identifying and cross checking range of the system in the organization and the discharge of responsibility at the right time. To ensure that management are supplied with quality information necessary to perform their function as

required by them. To provide training for non-auditing officers: in order to ensure effective implementation in internal control system non audit staff needs to be guided (Thompson 2001).

Okolo (2001) defined internal check as “the aggregate of the check and balance imposed on the day to day transaction on an organization where by the work of one person is verified in complementary by or as complementary to work of another, the objective been the prevention or early detection of errors and fraud.” According to Kurawa and Kabara (2014), “internal check is the organization of duties of the accounting staff in such a way that the work of each employee will be subject to contribute and automatic checking by another member of the organization’s staff”. It includes the division of the work allocated to authority, a proper method of recording transactions and the use of independently ascertaining totals against which number of individual entries can be treated.

Internal check, therefore, is necessary starting from the allocation of authority and proper division of work in such a manner that one person alone does not see through a transaction from the beginning to the end. This is the most form of internal control that exists; the duties performed by every individual are checked at the same time or the other by another employer. Thus, before any fraud can be committed or error pass understate, at least two people have to be in collusion or overlook the error whereby the work of one person is proved independently or is complementary to the work of another (Thompson, 2001).

2.6 Internal Control in Tertiary Institutions

In the evaluation of the system of internal control as is applicable to tertiary institutions, the Auditor should consider the method of keeping records, organization structure, segregation of duties and custodian control (ICAN, 2009).

Method of keeping records: Books and records which are kept for Institutions are the records of fixed assets, cash and bank statements, student enrollment, academic records, payroll records and other expenditures. Proper internal control requires that these records are kept in a permanent file. This means that all the records that are of continuing importance should be typed and documented and should also be stored electronically, duplicated for safety and prevented from unauthorized persons. Financial control in an organization focuses on key transaction areas, with emphasis on safeguarding assets and maintaining proper accounting records and reliable financial information (Cohen & sayag, 2010). It is also important that these records are updated regularly and proper reconciliation should be carried out between these records and any other relevant independent reports.

Organization Structure: In order to eliminate frictions and promote efficiency, there should be a well-defined organizational structure. Competent staff should be assigned specific positions of responsibility of which they have the relevant skills and competence, that is, an accountant to the bursary and audit department. A well-defined organization structure helps management to run business in an orderly manner, thus enhancing operational efficiency, which is an important feature of internal control (Cohen & Sayag, 2010).

Segregation of Duties: The segregation of duties, as it relates to tertiary institutions, requires that no one person shall be responsible for the whole three aspect of procedure in the institution. These aspects are authorization, custodian and recording. The simple objective of the segregation of duties is that no one person is in a position to both perpetrate a malpractice and at the same time conceal his action by manipulating his records (Cohen & Sayag, 2010).

Custodian control: Institutions should establish additional rules (discipline over basic controls) to ensure that the general rules they had established are indeed being complied with. These custodian controls are designed to physically prevent the loss of assets, cash and stocks by ensuring that the general rules of internal control are indeed operating (Cohen & Sayag, 2010).

2.7 Accountability

Accountability is the process whereby public sector entities and the individuals within them are responsible for their decisions and actions, including their stewardship of public funds and all the aspects of performance and submit themselves to appropriate external scrutiny (Francis, 1986). In the view of Akerele (2002) and Muhammad (2004), accountability is the compulsion to react to a responsibility that has been conferred on someone. It is an obligation to answer for the execution of one's assigned responsibilities. It involves a demonstration that work has been conducted in accordance with agreed rules and standards and the officer reports fairly and accurately on performance results vis-à-vis mandated roles and/or plans (Adegbite, 2010). According to Alnoor (2010) as cited in Gehya (2014), the various approaches to accountability based on the language of account can be grouped into Process based accountability which measures compliance with preset standard and formally defined outcomes, and performance based accountability, which measures accountability against broad objectives.

He also noted that there are three pillars of accountability, which the UNDP (United Nations Development Program) tagged ATI (Accountability, Transparency and Integrity). Accountability, which is segmented into:

- a) Financial accountability: the obligation of anyone handling resources, public office or any other position of trust to report on the intended and actual use of the designated office.
- b) Administrative accountability: this type of accountability involves a sound system of internal control, which complements and ensures proper checks and balances supplied constitutional government and an engaged citizenry. These include ethical code, criminal penalties and administrative reviews.
- c) Political accountability: this type of accountability fundamentally begins with free, fair and transparent elections. Through periodic elections and control structure, elected and appointed officials are held accountable for their actions while holding public office. The internal auditor who is the head of internal audit unit is expected to possess the qualities of financial accountability and administrative accountability in discharging his responsibilities. The auditor ensures that work has been conducted in accordance with agreed rules and standards and reports back to management accurately on financial performance vis a- vis mandated roles and /or plans.

Francis (1986) and Fredrick et'al (2015) accordingly said good governance requires regular financial and performance reporting that is validated for accuracy by an independent auditor. Accountability also implies imposing penalties or sanctions against those who have misapplied the resources for purposes other than intended (I IA, 2009). In order to bring about sustainable improvements in public service development and delivery, it is important that accountability in the public sector is improved upon. Accountability is also important to demonstrate democratically how government carries on the tasks of monitoring and control while preventing the concentration of power and enhancing the learning capacity and the effectiveness of public administration (Dechow, Sloan & Sweeney, 1996). Accountability shows relevance and plays a greater role in public administration (Cooper & Schindler 2001; Dechow et al 1996). Oseni (2004)

suggested that every government is fundamentally trying to appear good and reliable to the public. Anti-corruption laws and ethical codes have been established and enforced to avoid unethical actions against regulation. The concept of accountability has been evolving and broadening to a concept of integrated financial management and stewardship over the effective and efficient use of financial and other resources in all government operation areas (Cooper & Schindler, 2001; Dechow et al, 1996).

Public sector accountability requires governments to justify the source and utilization of public resources because governments are largely perceived as inefficient and poorly performing in service delivery. The growing concern on how government spends money increases public demand and pressure on the government to manage resources prudently (Adams, 1994; Olawn, 2001; Agumou, 2006; Alugbuo, 2005 & Okpara, 2002).

2.7.1 The Attributes of Accountability

Angela (2012), David, Carmen, Isaac and Alain (2013) made expositions on Accountability Attributes to include the following: Responsibility, Attributability, Liability, Transparency, Remediability, Verifiability and Observability.

Responsibility: Responsibility may be defined as the state of being assigned to take action to ensure conformity to a particular set of policies or rules. Accordingly, a responsible entity is one that is assigned to take action to ensure conformity to a particular set of policies and rules Angela (2012). Robertson (2006) opined that attribution of responsibility is a key element of accountability, as is apparent from definitions given in dictionaries, which tend to centre on accountability as the quality or state of being held to account for one's actions and an obligation or willingness to accept responsibility for one's actions. Accountability goes beyond responsibility by obligating an organisation to be answerable

for its actions (Orjioke, 2002). An accountable organisation is responsible for the stewardship of personal and confidential data with which it is entrusted (Oseni, 2004). Accountability is the obligation and / or willingness to demonstrate and take responsibility for performance in light of agreed upon expectations.

Attributability: This describes the property of an observation that discloses or can be assigned to the actions of a particular actor (or system element). It is the property of an act or object that it can be attributed to an entity. Accountability can be regarded as an extension of attributability when the action is governed by regulations. Attributability is independent of regulations, that is, attributability processes should function whether regulations exist or not. Accountability is what extends attributability by taking regulations to consideration (Osen, 2004). Attributability is a precondition of liability, as proper means for attributing actions to actors are essential for establishing legal responsibilities in case of failures to comply with commitments. Other concepts related to Attributability are Traceability and Non-repudiation. Traceability is the term commonly used in logistics and supply chain management to describe the ability to trace information related to goods during their production (Cooper & Schindler, 2001; Dechow et al, 1996).

Liability: This is the state of being liable (legally responsible). Correspondingly, a liable entity is an entity, which is legally responsible for the (legal) consequences of a certain action. Liability is an element of almost every definition of accountability. An accountable organization takes liability in respect to the obligations that they have defined (Cooper & Schindler, 2001).

Transparency: This is a property of an organization or a system about how well it implements and demonstrates the implementation of the following three transparency

practices: Informing upstream stakeholders about data protection policies and their implementation practices; Notification in case of policy violation and other events that have been agreed upon in the policy, which includes explanation of the actions taken on such an event; Responding to data subject access requests about data handling, e.g., data storing and processing. A transparent organization will implement procedures for supporting these practices and provide the means for demonstrating the existence and quality of such procedures (Azubike, 2005, Carcello et al. 2005; & Conrad, 2003).

Remediability: It is a property of an organization on the quality of its internal processes for taking corrective and compensatory actions in case of failing to comply with their commitments and policies. Remediation is supported by three main practices: Notification, which implies informing the relevant stakeholders about the failure, breach or disclosure; Reparation, which is related with taking corrective actions and technical remedies for restoring the system to the state prior the damage, if possible (Cooper & Schindler, 2001; Dechow et al 1996).

Verifiability: It is a property of an object, process or system that its behaviour can be verified against a requirement or set of requirements. Verifiability is a property of a process or system describing how well it implements and demonstrates the implementation of the following practices: Compliance of process or system behaviour with rules is documentable; Continuous documentation; Scope of documentable compliance is a balance between benefits and costs. A verifiable process or system will implement procedures for supporting these practices and will provide the means for demonstrating the existence and quality of such procedures. Accountability evidence relates to the documentation that should be collected in relation to compliance process. The scope of accountability evidence

is based on the balance between benefits and costs (Al-Twaijry, Brierley & Gwilliam, 2004).

Observability: It is a property of an accountable system that describes how well it implements and demonstrates the following characteristics: Internal actions in the system can be determined using external inspections. Actions that cannot be determined do not significantly influence actions of the system (Rafiu, 2007; Tunji, 2013).

2.8 Internal Audit Independence

The internal audit function of an organization should be given a sufficiently high status in the organizational structure to enable better communication with top management and to ensure independence of internal auditor from auditees (Mihret and Yismaw, 2007). This argument is in line with the assertion of Belay (2007) who argued that organizational independence allows the internal audit unit to conduct work without interference by the entity under audit. The internal audit unit should have sufficient independence from those it is required to audit so that it can both conduct its work without interference and be seen to be able to do so.

Stewart and Subramaniam (2010) emphasize that, the internal audit activity must be independent and that the internal auditors must be objective in performing their work. IIA (2009) defined organizational independence as the freedom from conditions that threaten the ability of the internal audit activity or chief audit executive to carry out internal audit responsibilities in unbiased manner.

The internal auditors in practical manner cannot be independent from management but the independency has to do with the mental attitude and objectivity of the auditors.

Independence is paramount value in providing effective internal audit service to the management, for it affords an atmosphere of objective and uninhibited appraisal and reporting of findings without influence from the units being audited. Internal auditors should be free from any factors that pose threats to its independence and objectivity. The organizational status of internal auditors should provide job security for internal auditors so that they cannot be dismissed for the sake of producing objective findings (Van Gansberghe, 2005). In institutions, the organizational structure of internal auditors represent variations that highlight two outstanding issues regarding objectivity; statutory independence and budgetary independence. Management who are involved in corrupt practices often becomes eager to intervene in the audit reviews, scope of work, and the results. To avoid such attempts, the Head of Internal Audit Unit should hold an adequately powerful position to be isolated from such influences.

The level of independence of internal auditors also depends on the budgetary status of the units and it is important for the internal audit unit to have adequate resources at their disposal. The efficiency and effectiveness of internal audit units depends on the availability of resources. Inadequate resources will limit the scope of audit work (Belay, 2007).

The internal auditors reporting relationship in any institutions and organizations should enhance their organizational independence. Organizational independence is also facilitated when the Chief Internal Auditor reports functionally to the board and administratively to the organization's CEO (Belay, 2007).

The presence of audit committee in an organization protects the independence of internal auditors which is one of the qualities of auditors (Zain *et al.*, 2004). As part of corporate

governance structure, audit committee is one of the key players in ensuring that, resources are safeguarded and utilized efficiently and effectively in achieving the objectives of the organizational. Mihret and Yismaw (2007) argue that, cooperation between internal auditors and audit committee is an important element of sound corporate governance.

The internal auditors would not be effective if they lack organizational independence (Belay, 2007). Unlike external auditors who are appointed by members at annual general meeting on temporary basis, internal auditors are appointed by management on permanent basis and are supposed to audit the same management. The question that remains to be answered is, can internal auditors be independent from management?

A separate study on internal audit independence seeks to find out the level of organizational independence of internal auditors in the tertiary institutions in Kano with a view to examine the factors that impairs the independence of internal auditors in the public tertiary institutions.

2.9 Prior empirical Studies

Cohen and Sayag (2010) conducted an empirical study on the effectiveness of internal auditing in Israeli organizations. The study employed the following variables in examining the internal audit effectiveness; sector – private versus public, professional proficiency of internal auditors, quality of audit work, organizational independence, career and advancement and finally top management support. The study revealed that support of management is almost crucial to the operation and success of internal audit. And other determinants of internal audit effectiveness derive from the support of top management. The study even though did not focus on IAF recommends for more research to be conducted on internal audit effectiveness. Going by this study, it can be deduced that key

reference is given to management support of an organization, which is an indication that the overall productivity and accountability of any organization lies on how focus and determined the management is and generally her perception towards the audit function and how audit discharge their responsibility. The outcome of the study is a good one, but it will have been better if it has a true reflection of responses internal audit independence as a very vital phenomenon for better performance. By so doing, it will further justify the position of the researcher.

The study of Ezeani and Oladele (2012) tried to find out what school audit is all about the role of audits and the difference it can make towards accountability, especially in school administration. They employed a descriptive design and found out that lack of technical competence independence and inadequate level of resources does directly affect the performance of the school audit. It therefore concluded that intensive and regular training programs should be ensured for school accountants and auditors and there should also be the proper delegation of duties been a complex concept, a mere descriptive statistic is not sufficient to examine school audit towards accountability but his assertion is in accordance with that of Ejoh & Ejom (2014) and related to Cohen and Sayag (2010) in the areas of inadequate professional proficiency of internal auditors, quality of audit work, organizational independence, career and advancement. While Ejoh and Ejom (2012) limited their work on colleges of education as tertiary institutions in Cross –River state, Tijjani (2003) also limited his study to universities as tertiary educational institutions. Their studies, however, can be described to be narrow in terms of scope of what a tertiary institution entails. This research encompassed universities, polytechnics and colleges of Education as tertiary institutions. Moddibo (2015) studied on internal audit unit on the

effectiveness of the internal control system while this research focuses on internal audit function and financial accountability; Chi-square was used to analyze the data which may not provide sufficient proof for the outcomes of the work, while a more advanced method was employed for this research work i.e Ordered logistic regression. The findings of his work were that internal audit units are not effective because of lack of independence, short staffing and untimely audit report and poor placement of the internal control system which coincides with Ezeani & Oladele (2012), Onotuyeh & Aneiefor (2013) Akosile (2013) and Onoja et al (2013). The research however fail to see that ownership factor (federal, state or private) can influence governance policy, recruitment and the enthronement pattern of key officers and staff of individual tertiary institutions will therefore be more appropriate to look beyond just considering one type of institution before arriving at a concrete position.

Other researches conducted on the impact of internal audit functions in the public sector included Akosile (2013), who examined a comparative assessment of internal auditing functions in public and private universities in Nigeria. The findings of the result confirmed that internal auditing functions can be over-ridden by management in both public and private universities. Examination of the effectiveness of the internal control system in the private university shows that internal auditing function is effective in reducing the cost of running the university and also strengthens the goal attainment of a university contrary to Ejoh and Ejom (2012), who opined that effective internal auditing does not hinder the financial performance of tertiary institutions` in Nigeria because once there is a reduced running cost and an enhanced goal attainment, financial performance is of course guaranteed.

Onatuyeh and Aniefor (2013) in their work on public sector management and accountability in Edo State examined the extent to which effective internal audit functions could be used as an instrument to improve public sector management and accountability in the state. They used Cross tabulations, descriptive statistics and the Spearman rank order correlation coefficient. The findings of their study suggest that effective internal auditing ensures proper stewardship reporting and inadequate qualified manpower does hinder the proper auditing of government accounts. Based on these, it can be deduced that auditing of accounts is fundamental to the effective and efficient stewardship reporting by accounting officials.

Onoja, et al. (2013) opined that an internal audit system plays a key role in the assurance chain towards financial accountability. Their study provides evidence on the perception about the effectiveness of internal audit accountability in the Nigerian public sector. In order to carry out a proper assessment, the research was centered on the use of auditing to improving public sector management, using the Kogi State ministry of finance. It also ascertained the extent to which accountability, effectiveness and efficiency of audit mechanisms are being promoted in Nigeria. Using Cross tabulations and Chi-square methods for their analysis of data, they found that the internal audit can effectively check fraud and fraudulent activities in the Public Sector. The study suggested that Government should provide audit staff with adequate electronic data processing facility and a maintenance of an environment within which internal auditors can have sufficient freedom to accomplish their task efficiently. The position of these researchers coincides with the recommendation of Ezeani & Oladele (2012), Onatuyeh and Aniefor (2013), Ejoh and Ejom (2014) and Moddibo (2015), especially on the suggestion that effective internal

auditing ensures proper stewardship reporting and inadequate qualified manpower does hinder the proper auditing of government accounts.

Similarly, in the work of Ejoh and Ejom (2014) on the effect of internal audit function on the financial performance of tertiary Institutions in Nigeria, they sought to establish the relationship between internal audit function and financial performance with particular reference to Cross River State College of Education, Akamkpa. Their study revealed that all the activities of the College are initiated by the top management. This position is in line with that of Akosile (2013). On the effectiveness of internal audit, the study found that the internal audit department of the College was not sufficiently staffed and did not perform their duties with greater degree of autonomy and independence from management. The study further revealed that internal audit function has no significant effect on the financial performance of Cross River State College of Education.

Badara and Saidin (2013) studied the impact of effective internal control system on the internal audit effectiveness in the public sector using the perception of internal auditors. Data of the study were collected through 300 questionnaires sent to internal auditors in Kano State. The study used simple random sampling technique; data were analyzed using STATA12.1. Descriptive statistics, factor analysis, correlation matrix and finally Ordinal Logit Square regression analysis were carried out. The findings of the analysis revealed that audit experience has a significant positive relationship with internal audit effectiveness and effective audit committee significantly moderates such relationship. In addition, Mihret and Yismaw (2007) in their case study on Ethiopian public Universities argued that internal audit recommendations are not afforded enough management attention and support, which adversely affect the effectiveness of internal audit. Moreover, lack of mechanisms in place

to follow up the implementation of internal audit recommendations the absence of strategic plan and consistent documentation styles for audit work, lack of resources, poor leadership for internal audit function (IAF), the absence of appropriate framework to measure IAF performance and lack of competent personnel are also some challenges of internal auditors. This opinion is not arguable and coincides with Ezeani and Oladele (2012); Onatuyeh and Aniefor (2013); Akosile (2013); Ejoh and Ejom (2014), Moddibo (2015).

The present study is different from the previous studies based on the fact that firstly, none of them used financial accountability variables as determinants of the impact of internal audit functions (especially the proxies used) in tertiary educational institutions.

Secondly, the absence of wider coverage (none used up to 12 tertiary institutions) to provide a divergent and more inclusive opinion of the general populace for accurate judgement about the subject matter. Tijjani (2003) also limit his study to universities but this study sought to improve upon by considering all the tertiary institutions Kano State (i.e Universities, Colleges and Polytechnics) and as such it covered a wider scope than the previous studies. Features of internal audit functions and the components of internal controls system are captured in this study. Thirdly, the study employed a different, more advanced and unique technique for data analysis. This research work is encompassing and a reflection of previous related researches and a frontier for future studies on the subject matter.

2.10 Theoretical Framework

Several theories have emerged to explain Audit Functions but for suitability purposes, the Agency, stewardship, information, policeman and lending credibility theories were adopted to form basis for this research work. The Agency Theory and the internal audit, as

propounded by Adams (1994), is one of the theoretical frameworks that guided this study. A simple agency model suggests that, as a result of information asymmetries and self interest, principals lack reasons to trust their agents and will seek to resolve these concerns by putting in place mechanisms to align the interests of the agents with principals and to reduce the scope for information asymmetries and opportunistic behaviour. The Agency Theory provides a useful theoretical framework for the study of internal audit functions. It not only helps to explain and predict the existence of internal audit but also helps to explain the role and responsibilities assigned to internal auditors by the organization and how the internal audit functions can affect organizational change. The theory provides a basis for rich research, which can benefit both the academic community and the internal auditing profession.

On behalf of the principal, the auditor assesses whether the financial statements, prepared by the agent, present a true and fair view of the company and are prepared in accordance with generally accepted accounting principles. The audits of financial statements make management accountable to shareholders for its stewardship of the company. Internal auditors are engaged as agents the under institution and are expected to be independent of the agents who manage the operations of the institution. The primary purpose of audited accounts in this context is accountability and auditor help to reinforce trust and promote stability (Audit quality, 2005, 9). Within the agency theory, the role of the audit is to reinforce trust and confidence in financial reporting (Kaars, 2011).

With regards to this work, the Agency Theory places internal audit function as an agent meant to uncover and disclose the true and fair of a financial statement towards enhancing

the accountability of an organization and this makes the theory suit this research work best because it covers both the dependant and independent variables.

The Stewardship Theory defines situations in which managers are not motivated by individual goals. They are rather stewards whose motives with the objectives of their principals are aligned. Stewardship theorists assume a strong relationship between the success of the organization and the principal's satisfaction (Davis et al.1997 as cited by Kaars 2011).The steward, as opposed to the agent, places greater value on collective rather than individual goals; the steward understands the company's success as his own achievement.

With respect to this work, the stewardship theory implies that for audit to perform its functions effectively, it has to be a joint activity between internal audit and management, Audit requires management cooperation to be able to enhance Accountability as well as organizational goal attainment collectively. The information principle enables users to take economic decisions. Investors require valid audited financial information on behalf of their investment decision-making and the assessment of expected returns and risks. An audit is also valued as a means of improving the financial data used in internal decision-making (Davis et al. 1997 as cited by Kaars 2011). Data that are more accurate will improve the internal decision-making and enhance Accountability. Information principle here implies that a valid and more accurate data are the key ingredients to the auditors aimed at ensuring accountability and better decision making by the management of an organization.

The policeman theory claims that an internal auditor is responsible for searching, discovering and preventing fraud. The focus of the audit, however, has moved towards the verification of the truth and the fairness of the financial statements and the provision of

reasonable assurance. The theory, therefore, becomes relevant to this research because it stipulates the role of the internal auditor towards ensuring accountability.

According to the lending credibility theory, the primary function of the audit is to add credibility to financial statements. Internal audited financial statements increase the financial statement users' confidence in the financial figures and the faith in management's stewardship (Kaars, 2011). The theory is related to this research because it tends to add credibility to financial statements and boosts user's confidence in it.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the research design and the methodological issues involved in this study. It was divided into sub-sections: population of the study, research design, sample size and sampling technique. It also explained the variables used and their measurement. Lastly, the method of data collection and the technique of data analysis were also explained.

3.2 Research design

For this work, the cross sectional survey research design was used. This is based on the nature of the research, data collection and the ability to understand a population from a part. Others that adopted the same approach are: Gehya (2014); Ejoh and Ejom, (2014) and Shewamene (2014).

3.3 Population of the study

The population of the study comprises the staff of the audit and bursary/finance units as well as top management of all the government tertiary institutions in Kano State. The institutions are 12 in numbers and grouped into three strata of universities, polytechnic and colleges of education. On estimate, there are 4 universities, 1 polytechnic and 7 colleges of education (see Tables 3.1 – 3.3). The basis of this grouping is because each group is governed by separate body i.e the Nigerian Universities Commission (NUC), National Board for Technical Education (NBTE) and the National Commission for Colleges of Education (NCCE).

POPULATION OF STUDY

Table 3.1: Population for University

S/N	Name of institution	Federal/State ownership	Number of Audit Staff	Number of Bursary Staff	Total (X)
1	Bayero University Kano	Federal	12	125	137
2	Yusuf Maitama Sule University	State	3	22	25
3	Kano State University of Science and Technology, Wudil	State	7	27	34
4	Nigeria Police Academy Wudil	Federal	9	66	75
	Total		31	240	271

Source: Generated by researcher from Kano State Tertiary Institutions

Table 3.2: Population for Polytechnic

S/N	Name of institution	Federal/State ownership	Number of Audit Staff	Number of Bursary Staff	Total (X)
1	Kano State Polytechnic, Kano	State	6	22	28
	Total		6	22	28

Source: Generated by researcher from Kano State Tertiary institutions

Table 3.3: Population for College of Education

S/N	Name of institution	Federal/State ownership	Number of Audit Staff	Number of Bursary Staff	Total (X)
1	FCE Kano	Federal	9	24	33
2	FCE (technical), Bichi	Federal	6	45	51
3	Federal College of Agric Produce Technology, Hotoro	Federal	7	18	25
4	Sa'adatu Rimi College of Education Kumbotso	State	3	22	25
5	Audu Bako College of Agric Dambatta	State	4	8	12
6	College of Art, Science and Remedial Studies, Kano	State	5	15	20
7	Aminu Kano College of Islamic and legal Studies, Kano	State	1	15	16
	Total		35	147	182

Source: Generated by researcher from Kano State tertiary institution

3.4 Sample Size and Sampling Technique

The sample was drawn from the staff of the tertiary institutions in Kano state and the purposive sampling technique was used in selecting the staff of audit and account/bursary units and top management of all the federal and state tertiary institutions in the state so as to provide a wider coverage and divergent view on the subject matter, Therefore, the researcher intended to cover the following institutions in the state: Bayero University, Kano, Nigeria Police Academy Wudil, Federal college of Education , Federal College of Education (Technical), Bichi, Federal College of Agric Produce Technology Hotoro, Northwest University Kano, Kano state University of Technology, Wudil, Kano state Polytechnic, Sa'adatu Rimi College of Education, Kumbotso and Audu Bako College of Agriculture, Dambatta which gives a total of 12 institutions. To arrive at the sample size, the sampling size formula as developed by Stamatis (2012) and Kamlesh Maheshwari (2014) and adopted by Gehya (2014); Ejoh and Ejom (2003); Ezeani and Oladele (2012) and Shewamene (2014) will be employed similarly for the study:

$$n = \frac{(Z^2 \times p \times q) + ME^2}{(ME^2 + \frac{Z^2 \times p \times q}{N})} \text{----- (1)}$$

Where:

n= sample size

N= population of both audit and Bursary staff in all the tertiary institution

ME= margin of error determined by the researcher.

Z= Critical Standard Score

P= population proportion of success

q= population proportion of failure

Therefore, Specifying a margin error of $\pm 4\% = 0.04$

Confidence Level of 95% = 0.95

Alpha (α) = 1- Confidence Level = 1- 0.95 = 0.05

And the critical standard score, $Z_{1-\alpha/2}$

Given $Z_{1-\alpha/2} = 1.96$ (at confidence level of 95% for which corresponding value of Z is 1.96)

Now, since the total staff population (N) is = 481 (see table 1, 2 & 3)

Then sample size (n) can be obtained thus,

$$n = \frac{(Z^2 \times p \times q) + ME^2}{(ME^2 + \frac{Z^2 \times p \times q}{N})} = \frac{(1.96^2 \times 0.5 \times 0.5) + 0.04^2}{(0.04^2 + \frac{1.96^2 \times 0.05 \times 0.05}{481})} = \frac{0.962}{0.003597} = 267.4693 \cong 268 \text{ (to the next whole number)}$$

n = 268 samples.

The sample size determined for this study is therefore 268 respondents.

Hence, to get the number of questionnaire for each institution the simple percentages are obtained using the relations below:

$$K = X / N * 100 \text{ ----- (2)}$$

$$Q = K / 100 * n \text{ ----- (3)}$$

$$AQ = NAS / X * 100 \text{ ----- (4)}$$

$$BQ = NBS / X * 100 \text{ ----- (5)}$$

$$NQA = NAS / X * Q \text{ ----- (6)}$$

$$NQB = NBS / X * Q \text{ ----- (7)}$$

Where,

n is the number of questionnaire produced ----- (equation 1)

K is percentage of total questionnaire to be issued to each tertiary institution--- (equation 2)

Q is the Actual number of questionnaire to be distributed ----- (equation 3)

X is the total number of staff (audit & bursary) in each tertiary institution

N is the total number of staff (audit & bursary) in all the tertiary institutions in Kano.

AQ is % of questionnaire to be issued to Audit in each tertiary institution ----- (equation 4)

BQ is % of questionnaire to be issued to Bursary in each tertiary institution----- (equation 5)

NQA is no of quest to be issued to only audit staff in each tertiary institution -- (equation 6)

NQB is no of quest to be issued to only audit staff in each tertiary institution -- (equation 7)

NAS is the number of audit staff in each tertiary institution

NBS is the number of bursary staff in each tertiary institution

Table 3:4 Sample size for University

S/N	Name of institution	NAS	NBS	X	K (%)	Q	AQ (%)	BQ (%)	NQA	NQB
1	Bayero University	12	125	137	28.48	76	8.76	91.24	6.58	69.42
2	Yusuf Maitama Sule University	3	22	25	5.20	14	12.00	88	1.68	12.32
3	Kano State University of Science and Technology, Wudil	7	27	34	7.07	19	20.59	79.41	3.91	15.09
4	Nigeria Police Academy, Wudil	9	66	75	15.59	42	12	88	5.04	36.96
	Total	31	240	271	56.34	151			17.21	133.7

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Source: Generated by researcher

Table 3.5 Sample size for Polytechnic

S/N	Name of institution	NAS	NBS	X	K (%)	Q	AQ (%)	BQ (%)	NQA	NQB
1	Kano State polytechnic, Kano	6	22	28	5.8	16	21.43	78.57	3.43	12.57
	Total	6	22	28	5.8	16			3.43	12.57

Source: Generated by researcher

Table 3.6 Sample size for College of Education

S/N	Name of institution	NAS	NBS	X	K (%)	Q	AQ (%)	BQ (%)	NQA	NQB
1	FCE Kano	9	24	33	6.86	18	27.27	72.73	4.91	13.09
2	FCE (Technical) Bichi	6	45	51	10.60	28	11.76	88.24	3.29	24.71
3	Federal College of Agric Produce Technology, Hoto	7	18	25	5.19	14	28	72	3.92	10.08
4	Sa'adatu Rimi College of Education Kumbotso	3	22	25	5.19	14	12	88	1.68	12.32
5	AuduBako College of Agric Dambatta	4	8	12	2.50	7	33.33	66.67	2.33	4.67
6	College of Art, Science and Remedia Studies, Kano	5	15	20	4.16	11	25	75	2.75	8.25
7	Aminu Kano College of Islamic and Legal Studies, Kano	1	15	16	3.33	9	6.25	93.75	0.56	8.44

	Total	35	147	182		101			19.44	81.56
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Source: Generated by researcher

Table 3.7 Questionnaire issued and retrieved

S/N	Institution	NQI	NQR	NQNR	%QR	%QNR
1	Bayero University kano	76	64	12	84.2	15.8
2	Yusuf Maitama Sule University	14	10	4	71.4	28.6
3	Kano University of Science and Technology, Wudil.	19	12	7	63.2	36.8
4	Nigeria Police Academy, Wudil	42	35	7	83.3	16.7
5	Kano Polytechnic, Kano	16	14	2	87.5	12.5
6	Federal College of Education Kano	18	9	9	50	50
7	Federal College of Education Technical Bichi, kano.	28	23	5	82.1	19.9
8	Federal College of Agric Produce Technology Hortoro Kano.	14	12	2	85.7	14.3
9	Saadatu Rimi College of Education kumbotso.	14	12	2	85.7	14.3
10	Audu Bako College of Agriculture Danbatta	7	6	1	85.7	14.3
11	College of Art Science and Remedial studies, Kano.	11	10	1	90.9	9.1
12	Aminu Kano College of Islamic and Legal Studies , Kano	9	6	3	66.7	33.3
	Total	268	213	55	79.5	20.5

Source: Generated by researcher

Where:

NQI: Number of questionnaire issued

NQR: Number of questionnaire recovered

NQNR: Number of questionnaire not recovered

3.5 Source and Methods of Data Collection

Primary data were used for this study and gathered basically through the administration of a structured questionnaire to the respondents. The researcher designed, developed and administered close ended questionnaires on the staff of the higher institutions in Kano state. Responses are therefore keyed using a five point scale of: 5-Strongly Agree, 4-Agree, 3-Neutral, 2 - Disagree and 1- Strongly disagree. The five –point type rating scale, ranging from Strongly Agree to Strongly Disagree was used in measuring the responses of the entire questions. This is due to the fact that several researchers have made use of this scale as it is easy for respondents to understand. Hence, responses from five point scale are most probably reliable (Zuriekat, Salameh & Alrawashdeh, 2011).

3.6 Validity of the Research Instrument

A validity test was conducted to check the ability of the research instrument to measure the variables it was intended to measure. The tests proposed are face validity and content validity. Face validity involves an analysis of whether the instrument appears to be on a valid scale and contained the important items to be measured. Content validity, on the other hand, evaluates the degree to which a test appears to measure a concept of analysis of the items in order to ensure an adequate covering of the scope of study by the measuring instrument. To achieve this, the pilot questionnaire was issued to the project supervisor, experienced academicians/lecturers and some staff of the concerned tertiary institutions to review the content and appropriateness of the questions in relation to the stated objectives of the study.

3.6.1 Reliability of the Research Instrument

To ensure the stability, dependability and predictability of the instrument, reliability test was conducted. Reliability was checked to determine if the scale consistently reflects the

construct it was measuring. It has to do with accuracy, precision or the consistency of the measuring instrument. This was accomplished by administering the research instrument twice on the same set of respondents at different times. The intention is to determine the extent to which a measure, procedure instrument yields the same result on repeated trials. The Cronbach alpha (α) coefficient was used to measure the reliability of the questionnaire.

3.70 Variables and their Measurement

3.7.1. The Independent Variable

The independent variable of this study is Internal Audit Functions (IAF) whose proxies for this research are: Internal control system review activities; Asset and Liability Verification; Compliance with plan and procedures. The variables were used by Al-Twaijry, Brierley, & Gwilliam, (2004), Zain, Subramaniam and Stewart (2006), Arena and Azzone (2009), Okereson (2013), Shewamene; Gehya; Ejoh and Ejom, 2014 and are adopted as the components for the independent variables in this study. The measurement of the variables would be based on data extracted from the responses of each respondent from each of the institutions. All the items for the independent variables were measured on a 5-point Likert scale (1 = Strongly Disagree to 5= Strongly Agree). Thus,

1. Internal control system review (ICS) – involves reviewing the soundness, adequacy and application of the effective internal controls systems within an organization and is highly achievable with a positive perception and support from the management.
2. Asset and liability verification (ALV)—this is concerned with the determination of value ownership and the possession of the asset as well as liability.

3. Compliance with plan and procedure (CMP) – involves monitoring and evaluating accounting systems in line with established policies, procedures and plans, where-in adequate and competent internal audit staff will engender a higher degree of compliance as well as performance Al-Twaijry, etal. 2004, Zain, Subramaniam Stewart (2006) Arena and Ozone (2009).

3.7.2 The Dependent Variables

The dependent variable for this research work is Accountability (ACCT). Based on the fact that it cannot be measured directly, some proxies (attributes) have been adopted for the purpose of this research to measure it. These attributes were adopted from David et al (2013), Frederick and Heidi (2015); Al-Noor (2010), Tracy (2016) and Angela (2012) and have been adopted here due to their suitability to the subject matter. They are: Responsibility (RES), Transparency (TRANS) and Answerability (ANS).

Questionnaire was sent to 12 tertiary institutions in the state and mainly to staff of the bursary and audit units.

The Accountability item was measured on a 5-point likert scale (1 = strongly disagree, 2 = disagree, 3 = Neutral, 4 = agree, 5 = strongly agree) across the selected proxies.

Below is a brief exposition on accountability attributes:

- 1.) RESPONSIBILITY (RES): This implies the state of being assigned to take action to ensure conformity to a particular set of policies or rules. Attribution of responsibility is a key element of accountability, which shows the quality or state of being held to account for one's actions and an obligation or willingness to accept responsibility for one's actions. This involves financial planning, monitoring and control, fair and accurate reporting of accounts, check and balancing, e.t.c.
- 2.) TRANSPARENCY (TRANS): This is a property of an organization or a system about how well it implements and demonstrates the implementation of the following three transparency practices:

- a.) Informing upstream stakeholders about data protection policies and their implementation practices;
- b.) Notification in case of policy violation and other events that have been agreed upon in the policy, which includes explanation of the actions taken on such events;
- c.) Responding to data subject access requests about data handling, e.g., data storing and processing.

By transparency, handling / accounting records for excess revenues, ensuring that expected results are clear, measurable and quantifiable in order to facilitate easy comparison between the budgets and actual results and that all revenues and expenditures are disclosed in the financial statement and monitoring records of asset and liability are given more consideration.

3.) ANSWERABILITY (ANS): Accountability can be regarded as an extension of answerability, which entails attributability, liability and traceability. Attributability is a precondition of liability, as the proper means for attributing actions to actors are essential for establishing legal responsibilities in case of failures to comply with commitments. Traceability refers to the ability to trace information related to goods during their production. It can be extended to information management to describe the ability to track the complete set of operations (access, modification or deletion of data) that were performed on a specific set of data while liability is the state of being liable (legally responsible). Correspondingly, a liable entity is an entity, which is legally responsible for the (legal) consequences of a certain action. Often damages will trigger liability. The entity that is held liable is then responsible for repairing damage (e.g. through financial redress) (Angela 2012) answerability in the context

of this research implies ensuring that actions are essentially assigned to actors for establishing legal responsibilities in case of failures to comply with commitments and that the line of authority in tertiary institution is properly structured to allow for the effective segregation of duties and stewardship reporting.

3.8 Internal Audit Independence

The purpose of the study was to investigate the organizational independence of the internal auditors in the Tertiary institutions in Kano. This involved examining the organizational status of the internal auditors, the reporting relationship, the condition of service, budgetary allocation, appointment, dismissal, remuneration, integrity, perception, implementation of reports, autonomy and the presence of the audit committee in the public Tertiary institutions. This study was, therefore, structured within the framework of a descriptive research approach. Descriptive research studies are designed to obtain information, which concerns the current status of phenomenon Sarens and De Beelde (2006).

The population of the study comprised the internal auditors in all tertiary institutions in Kano State. In all, a total of 12 internal auditors participated in the study and 14 Top management staff of the tertiary institutions (i.e Vice- Chancellor, DVCs, Bursar, Registrar, Provost, Rector or their respective deputies) were purposively selected. The total sample size was 36. However, the response rate was 75% % as the researchers were unable to retrieve 10 questionnaires. In the opinion of the researchers, this response rate was good enough for the study.

In this study, self-administered questionnaires were used to explore the organizational independence of the internal auditors. The questionnaires were designed based on standards covering organizational independence of internal auditors provided by the IIA (2009).

Two different sets of questionnaires were constructed to collect data from internal auditors and members of the management team of each tertiary institution under review. The questionnaires were made up of closed-ended items (where respondents were offered options from which they were to select those items that they deemed appropriate). The data collected was analyzed descriptive statistics.

The factors determine the level of independence of internal auditors in the tertiary institutions are mainly those factors that may impair organizational independence of internal auditors (see questions in the questionnaire in the appendix) and presented in the 5-points likert scale of 5-strongly agreed, 4- agreed, 3-neutral, 2-disagreed, 1-strongly disagreed. The findings are presented in Table 1.

3.9 Technique for Data Analysis

3.9.1 Descriptive Statistics

A detailed description of the variables under study as well as internal audit independence was presented in a table format in the next chapter. The statistics that was displayed included the number of observations, which is the number of retrieved questionnaires, the minimum and maximum values and the standard deviation.

3.9.2 Ordinal Logistic regression

Logistic regression may be useful when trying to model a categorical dependent variable as a function of one or more independent variables being the dependent variable as two outcomes. Ordinal logistic regression (OLR) is a type of logistic regression analysis when the response variable has more than two categories and having natural order or rank.

In statistics, the ordered logit model (also ordered logistic regression or proportional odds model) is a regression model for the ordinal dependent variable. It is natural to consider

methods for more categorical responses having more than two possible values. The most well-known of these ordinal logistic regression methods is called the proportional odds model. The basic idea underlying the proportional odds model is re-expressing the categorical variable in terms of a number of tertiary variables based on internal cut-points in the ordinal scale.

3.9.3 Assumptions of ordinal regression

- The dependent variable should be measured at the ordinal level.
- Ordinal independent variables must be either continuous or categorical.
- There is no multicollinearity.
- Each independent variable has an identical effect at each cumulative split of the ordinal dependent variable.
- The relationship between each pair of outcome groups is the same.
- The effects of any explanatory variables are consistent or proportional across the different thresholds.

3.9.4 The Ordinal Logistic regression model

$$\text{Ln}(\theta_j) = \beta_{0j} + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + E_j$$

Where j goes from 1 to the number of categories minus 1.

Attitudinal responses to Accountability as a set of 5 ordered responses (Strongly Disagree, Disagree, Neutral, Agree, Strongly Disagree) strongly make a case for the use of ordinal logistic regression, because if a category is ordinal then there are special models that tell how independent variables relate to someone being higher or lower on the scale.

The Ordered logit model is the safe method to employ, so that it is possible to use the categorized directly as a dependent variable. Different links lead to proportional odds

models or ordered probit models. The model cannot be consistently estimated using ordinary least squares; it is usually estimated using maximum likelihood. The proportional odds model and the partial proportional odds model are special cases of the cumulative logit model. This is a cumulative logit model that assumes that the odds of response below a given response level are constant regardless of which level we picked. This model allows separated intercepts for the cumulative logit, but restricted the parameter sets for the predictors to be the same across all logits. A proportional odds model that constrains some predictors to have common parameters and leaves other predictors free to have separate parameters is called a partial proportional odds model. The basic form of the generalized linear model is:

Where, π_j is the cumulative probability for the category, τ_j is the threshold for the category, β_1, \dots, β_n are the regression coefficients, X_1, \dots, X_n are the predictor variables.

3.9.5 Fitting an Ordinal Logit Model

The quantity to the left of the equal sign is called a logit. If the spacing between levels of the ordinal response scale is known, so that numerical scores can reasonably be assigned to the response levels, then a mean response model can be fit. When we have more than two events, we can extend the ordinal logistic regression model. Suppose the underlying relationship to be characterized is: $y_i = x_i'\beta + \varepsilon_i$, (Agresti, 2002), where y_i is the exact but unobserved dependent variable (perhaps the exact level of improvement by the patient); x is the vector of independent variables and β is the vector of regression coefficients, which we wish to estimate. The Model fitting Information gives the -2 log likelihood (-2LL) values for the baseline and the final model and a chi-square to test the difference between the -2LL for the two models. The goodness of fit statistics indicated that the model fits much better

than the location only model. From the observed and expected frequencies, we could compute the usual Pearson and Deviance goodness of fit measures.

The Pearson goodness of fit statistic is

$$\chi^2 = \sum \left(\frac{O_{ij} - E_{ij}}{E_{ij}} \right)^2$$

The deviance measure is $D = 2 \sum \sum O_{ij} \ln \left(\frac{O_{ij}}{E_{ij}} \right)$

Both of the goodness-of-fit statistics should be used only for models that have reasonably large expected values in each cell. If it has a continuous independent variable or many categorical predictors or some predictors with many values, it may have many cells with small expected values. There are several R^2 like statistics that can be used to measure the strength of the association between the dependent variable and the predictor variables. They are not as useful as the R^2 statistic in regression, since their interpretation is not straight forward. Three commonly used statistics are: Cox and Snell R^2 , Nagelkerke's R^2 and Mc Fadden's R^2

3.9.6 Model for the study

$$ACCT_i = \beta_{0i} + \beta_1 ICS_i + \beta_2 CMP_i + \beta_3 ALV_i + E_i$$

Where,

ICS = Internal control systems review

CMP = Compliance with policy, plans and procedures

ALV = Asset and Liability verification

ACCT = Accountability

IAF = Internal audit functions.

E = Error term peculiar to each outcome variable.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents analyses and interprets the generated data (questionnaire) from the respondents for the study that cut across all the public tertiary institutions in Kano state. The data relating to each of the statistical hypotheses of the study are presented and analysed. This chapter includes the introduction, table of descriptive statistics, robustness test of the independents and dependent variables, Karl Pearson's correlation matrix, ordered logistic regression analysis and a discussion on the implication of the study findings.

Table 4.1: Descriptive statistics of the variables of IAF and Accountability

DEMOGRAPHIC/ VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM	MAXIMUM
ACCT	213	3.8967	0.6506	2	5
ICS	213	4.0329	0.5859	2	5
CMP	213	3.8122	0.6676	2	5
ALV	213	3.8920	0.7021	1	5
GENDER	210	1.0714	0.2582	1	2
AGE	209	2.3636	0.8781	1	4
NATURE OF JOB	212	1.4340	0.7157	1	3
WORK EXPERIENCE	210	2.6476	1.1195	1	4
EDUCATIONAL QUALIFICATION	211	3.2133	0.7413	1	4

Source: generated by researcher using STATA

Table 4.1 presents the descriptive statistics of the dependent variable (Accountability) of this study as well as the independent variable – Internal audit functions (Internal control system (ICS), Compliance with established policy, plans and procedures (CMP) and Asset and Liability Verification (ALV). It displays the minimum, maximum, mean and standard deviation for both the dependent and independent variables of this study. The nature of the

data shows that they are ordinal data, which are in categories and the size of the data is 213. The data are transformed by taking the average of the responses and rounded off to the nearest whole number.

The relatively small figures in standard deviation displayed were necessitated by the nature and size of imputed data. Also, Table 4.1 displays the demographic statistics of the respondents. It can be observed from the column of means that the value for gender is 1.0714, which indicates the male gender has overall the highest average number of respondents to the questionnaire compared to females. Similarly, it can be seen that the 31-40 years age category has overall the highest average number of respondents (2.3636), compared to other categories. As regards the nature of job, it was discovered that the Accountants recorded overall the highest number of respondents (1.4339) compared to other job categories. The 11 – 15 years categories were discovered to have overall the highest average number of respondents (2.6476) based on the approximate mean value. Lastly, those with Bachelor degrees/ H.N.D recorded overall the highest average number of respondents, as indicated by the average mean value of 3.2133. The standard deviation is showing a good spread of the demographic data; the minimum and maximum values represent the range of options available to the respondents for them to choose one option out of all.

4.2 Descriptive statistics of internal audit independence

Table 4.2 Descriptive statistics of internal audit independence

DEMOGRAPHIC/ VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM	MAXIMUM
Ia	26	4.0385	1.0763	2	5
Pddr	26	2.5385	0.8593	1	4
Rha	26	2.2308	0.9511	1	5
Fmt	26	3.2692	1.3434	1	5
Rtim	26	2.9615	1.3411	1	5
Paa	26	3.4615	1.0288	2	5
Mwp	26	2.9615	1.3706	1	5
Osae	26	3.0385	1.1129	1	5
Rbm	26	3.0000	1.2649	1	5
Ait	26	4.3077	0.9282	1	5
Miw	26	2.7692	1.5571	1	5
Ascsc	26	3.5000	0.8124	2	4
Ashm	26	2.6923	1.2254	1	5
Iham	26	2.9231	1.7871	1	5
Liecc	26	3.5385	1.4757	1	5
Ppq	26	4.5385	0.7606	2	5
Irham	26	2.5769	0.9868	1	4
Raba	26	2.8462	1.2551	1	5
Ciaa	26	2.1923	1.1669	1	5
Ac	26	1.5	0.7071	1	4
Gender	26	1.0385	0.1961	1	2
Age	25	3.24	0.6633	2	4
Nature of work	25	1.8461	0.7845	1	3
Working experience	22	3.2727	0.8827	1	4
Educational back	25	1.88	0.3317	1	2

Source: generated by researcher using STATA

The descriptive statistics from table 4.2 revealed that the respondents are mainly in the male gender evidenced from the mean response value of (1.038) and within the age bracket of 41-50 years (3.24). Majority of the respondents falls within the auditor's nature of work (1.8461) while others spread within the top management level of the tertiary institutions under study.

In terms of working experience, the respondents fall within the range of 11-15 years of experience with a mean value of (3.2727). However the respondents' educational background is in the post graduate categories as evidenced by the mean response value of (1.88).

4.3 The Robustness Test of Independent and Dependent Variables

The robustness test was conducted in order to ensure the validity of all statistical inferences for the study. The tests included Multicollinearity and Normality tests.

4.2.1 The Multicollinearity Test

Multicollinearity is a statistical phenomenon in which two or more predictor variables in a multiple regression model are highly correlated, meaning that one can be linearly predicted from the others with a non-trivial degree of accuracy. The two most common ways of detecting it are to check the results reported from the Variance inflation factor (VIF) and Tolerance value (TOL) The recommended maximum value of VIF is 10 and corresponds to the TOL recommended maximum value of 5 Rogerson (2001) and Tabachnick (2001). According to Samaila (2014) and Garko (2015), the VIF in excess of 10 is an indication of harmful multicollinearity. In addition to that, a TOL whose value is closer to zero is an indication of multicollinearity. The valve is better closer to one than zero, for example, 0.02, is an indication of multicollinearity. It should be noted that the TOL is the inverse of VIF.

Table 4.3.Multicollinearity Test

VARIABLE	VIF	TOL = 1/VIF
ICS	1.38	0.7251
CMP	1.59	0.6289
ALV	1.42	0.7037
MEAN	1.46	0.6859

Source: generated by researcher using STATA

The results displayed in Table 4.3 indicates that there is no presence of multicollinearity among the independent variables due to the fact that the VIFs are not in excess of 10 and also the TOLs are closer to one than zero. The VIF for ICS, CMP and ALV are 1.38, 1.59 and 1.42 respectively while the TOL value is 0.7251, 0.6289 and 0.7037. The Average mean VIF is 1.46 while the average value of TOL is 0.6859, respectively.

4.2.3 The Normality test.

The normality test adopted for this research is the Shapiro-wilk test. The null hypothesis under this test is that the residuals of the models follow a normal distribution. If the p-value is greater than the pre-selected level of significance ($\alpha = 0.05$), the null hypothesis is rejected and it is concluded that the residuals do not follow a normal distribution.

TABLE 4.4 NORMALITY TEST FOR THE MODELS

Variable	N	Z	P-value
ACCT	213	11.091	<0.0001

Source: generated by researcher using STATA

H_0 : the residuals of the models follow a normal distribution

H_1 : the residuals of the models do not follow a normal distribution

From the results displayed in Table 4.4, the p-values are significant at the 5% level of significance is far less than 0.05. This shows a clear sign that the residuals of the model do not have a problem. Therefore, the null hypothesis of normality is rejected. But this is not a major problem, as ordinal logistic regression is not rigid with its normality test unlike the conventional Ordinary least squares regression.

4.2.4 The Reliability Test of the Residuals

Reliability comes to the forefront when variables developed from summated scales are used as predictor components in objective models. Since summated scales are an assembly of interrelated items designed to measure underlying constructs, it is very important to know

whether the same set of items would elicit the same responses if the same questions are recast and re-administered to the same respondents. Variables derived from test instruments are declared to be reliable only when they provide stable and reliable responses over a repeated administration of the test. The Cronbach alpha (α) coefficient which measures the internal consistency of the items and ranges in value from 0 to 1 was used to describe the reliability of the factors extracted from the questionnaires' Likert-type scales (that is, rating scale: 5 = Strongly Agree, 1 = Strongly Disagree). The higher the coefficient, the more reliable the generated scale is.

Table 4.5 Reliability Test Results

VARIABLES UNDER STUDY		NO OF ITEMS IN SCALE		AVERAGE INTER- ITEM CORRELATION		RELIABILITY COEFFICIENT (α)	
DEPENDENT VARIABLE							
ACCOUNTABILITY (ACCT)		20		0.3580		0.9177	
INDEPENDENT VARIABLE							
INTERNAL AUDIT FUNCTIONS (IAF)	INTERNAL CONTROL SYSTEM REVIEW (ICS)	15	35	0.3193	0.2860	0.8756	0.9334
	COMPLIANCE WITH ESTABLISHED POLICY, PLANS AND PROCEDURES (CMP)	10		0.3390		0.8368	
	ASSETS AND LIABILITY VERIFICATION (ALV)	10		0.3828		0.8612	

Table 4.4 displays the reliability test results carried on the variables under study. It can be observed that the reliability coefficient of each of the variables whose items were measured are relatively on the high side (that is, above 0.5). This indicates, to a very large extent, the items correctly measure the variables under study and that the questionnaire is not faulty, since the threshold for the average inter-item correlation falls between 0.3 and 0.5.

From Table 4.4, the Cronbach's alpha co-efficient ranges between 0. and 0.9. Specifically, the Cronbach's alpha co-efficient for ICS, CMP and ALV are: 0.8756, 0.8368 and 0.8612, respectively. Their Cronbach's alpha values are above the 0.7 thresholds and a Cronbach's alpha coefficient greater than 0.5 is deemed to be acceptable, according to Sekaran (2003). Thus, it is concluded that, since the Cronbach's coefficients for all the variables are greater than 0.5, then all variables will be retained for the analysis.

The Reliability and Multicollinearity tests conducted give concrete evidences that the regression data are free of regression errors capable of invalidating the research's regression assumptions. This makes the regression estimates reliable and enhances its accuracy.

4.2.4 Correlation Matrix (Karl Pearson's product moment correlation matrix)

Correlation matrix shows the relationship between all the pairs of variables in the regression models, that is, the relationship between the dependent and independent variables as well as the relationship between the independent variables themselves.

Table 4.6. Correlation matrix of Accountability and the subset variables of Internal audit functions.

	ACCT	ICS	CMP	ALV
ACCT	1.0000			
ICS	0.3349	1.0000		
CMP	0.5336	0.4455	1.0000	
ALV	0.4402	0.3545	0.4982	1.0000

Source: generated by researcher using STATA

The correlation matrix in Table 4.6 shows the relationship between Accountability and the subset variables of Internal audit functions: ICS, CMP and ALV. The correlation coefficient values range from 0 to 1 and can either be positive or negative. These signs indicate the strengths and weaknesses of the relationships, with larger values indicating stronger relationships depending on the directions.

It can be observed from the first matrix that all the subset variables of internal audit functions, ranging from Internal control system (ICS = 0.3349), Compliance with established policy, plans and procedures. (CMP = 0.5336) and Asset and Liability Verification (ALV = 0.4402), all have a positive and relatively moderate relationship with

Accountability. It is safe to say that internal audit functions help to improve accountability in all the tertiary institutions in Kano state.

4.3 Bivariate Analysis

Bivariate analysis is one of the simplest forms of quantitative (statistical) analysis. It involves the analysis of two variables (often denoted as X, Y) for the purpose of determining the empirical relationship between them. The Chi-square Test of Association is simply an extension of a cross-tabulation that gives more information about the relationship. However, it provides no information about the direction of the relationship (positive or negative) between the two variables. It deals with the associations/relationships between two variables and tests hypotheses about relationships between two or more ordinal level variables.

Table: 4.7 Bivariate Analysis

Variables	Pearson Chi-Square	Df	P-value
Internal Control Systems	106.108	9	<0.0001
Compliance	119.723	9	<0.0001
Assets & Liability verification	98.658	12	<0.0001
Gender	0.491	3	0.921
Age	13.207	9	0.153
Nature of Job	13.756	6	0.032
Work Experience	7.483	9	0.587
Educational Qualification	10.139	9	0.339

Source: generated by researcher using STATA

Table 4.7 shows that the Accountability of an institution has a significant association with the internal control systems, Compliance with the established policies and Assets and liability verification of such institution, as well as the Nature of Job of those working in the institution (Accountants, Auditors, etc). However, the gender status of a respondent, Age, work experience and educational qualification do not have a significant association with the

accountability of an institution. This is evidenced on the p-values and the Pearson Chi-square values of the variables, that is, variables with p-values less than 0.05 are considered to have a significant association with the dependent variable.

Table:4.8 Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	Df	P-value
Intercept Only	199.632			
Final	96.574	103.058	10	<0.0001

Source: generated by researcher using STATA

The Model Fitting Information Table, which gives the -2 log likelihood for the intercept only and final models, can be used in comparisons of nested models. The statistically significant chi-square statistic ($p < 0.05$) indicates that the final model gives a significant improvement over the baseline intercept only model. This tells us that the model gives better predictions than if we just guessed based on the marginal probabilities for the outcome categories. Therefore, the full model (with factors that affect Accountability as a predictor) is significantly better than the 'Accountability' only model.

Table: 4.9 Goodness of fit

	Chi-Square	Df	P-value
Pearson	66.317	68	0.535
Deviance	49.171	68	0.959

Source: generated by researcher using STATA

H_0 = The model fits adequately vs H_1 = The model does not fit adequately.

The results above indicate that the model fits adequately because the null hypothesis of the goodness of fit test is not rejected at the 0.05 significance level.

Table: 4.10 Pseudo R-Square (R^2)

Cox and Snell	0.384
Nagelkerke	0.449
McFadden	0.252

Source: generated by researcher using STATA

For logistic and ordinal regression models, it is not possible to compute the same R^2 statistic as in linear regression; therefore, three approximations are computed instead. What constitutes a “good” R^2 value depends on the nature of the outcome and the explanatory variables. Cox and Snell’s R^2 (Cox and Snell, 1989) is based on the log likelihood for the model compared to the log –likelihood for a baseline model. However, with categorical outcomes, it has a theoretical maximum value of less than 1, even for a “perfect” model. The Nagelkerke’s R^2 (Nagelkerke, 1991) is an adjusted version of the Cox & Snell R^2 that adjusts the scale of the statistic to cover the full range from 0 to 1. While the McFadden’s R^2 (McFadden, 1974) is another version based on the log-likelihood kernels for the intercept only model and the full estimated model. Therefore, the relatively moderate Pseudo- R^2 values in Table 4.10 above on the scale of 0 to 1 indicate that the model with the independent variables better explains the variation in the dependent variable (Accountability).

4.4 Ordinal Logistic Regression

Table: 4.11 Parameter estimates using Logit coefficients

Acct	Coefficient	Std. Error	Z	P-value	95% conf. Interval	
ICI3	2.9173	1.6116	1.81	0.070	-0.2415	6.0760
ICI4	3.4436	1.5993	2.15	0.031	-0.3090	6.5781
ICI5	3.3538	1.6564	2.02	0.043	0.1073	6.6003
CMP3	1.2568	1.2160	1.03	0.301	-1.1265	3.6401
CMP4	2.9076	1.2375	2.35	0.019	0.4822	5.3330
CMP5	4.4798	1.3545	3.31	0.001	1.8250	7.1346
ALV2	-3.6171	1.9420	-1.86	0.063	-7.4233	0.1891
ALV3	-0.8487	1.5881	-0.53	0.593	-3.9614	2.2640
ALV4	-0.4559	1.5720	-0.29	0.772	-3.5369	2.6251
ALV5	0.9444	1.6439	0.57	0.566	-2.2775	4.1665
/cut1	0.1435	1.9853			-3.7476	4.0346
/cut2	3.7467	2.0948			-0.3590	7.8525
/cut3	8.0727	2.1201			3.9175	12.2279

Source: generated by researcher using STATA

Number of Observation = 213 LR chi2 (10) = 103.06 Overall P-value = <0.0001

Pseudo R^2 = 0.2516

Log likelihood = -153.25336

Table: 4.12 Parameter estimates using Odds ratio.

Acct	Odds ratio	Std. Error	Z	P-value	95% conf. Interval	
ICI3	18.4906	29.7800	1.81	0.070	0.7855	435.2815
ICI4	31.2979	50.0547	2.15	0.031	1.3620	719.1850
ICI5	28.6113	47.3922	2.02	0.043	1.1133	735.3282
CMP3	3.5140	4.2730	1.03	0.301	0.3242	38.0941
CMP4	18.3127	22.6615	2.35	0.019	1.6196	207.0584
CMP5	88.2131	119.4860	3.31	0.001	6.2025	1254.5790
ALV2	0.0269	0.0522	-1.86	0.063	0.0006	1.2082
ALV3	0.4280	0.6797	-0.53	0.593	0.0190	9.6211
ALV4	0.6339	0.9964	-0.29	0.772	0.0291	13.8057
ALV5	2.5715	4.2273	0.57	0.566	0.1025	64.4887
/cut1	0.1435	1.9853			-3.7476	4.0346
/cut2	3.7467	2.0948			-0.3590	7.8525
/cut3	8.0727	2.1201			3.9175	12.2279

Source: generated by researcher using STATA

Number of Observation = 213 LR chi2 (10) = 103.06 Overall P-value = <0.0001

Pseudo R^2 = 0.2516

Log likelihood = -153.25336

4.5 INTERPRETATION OF RESULTS

Table 4.11 and 4.12 above represent the parameter estimates of the ordinal logistic regression. In Ordinal logistic regression, results of the analysis carried out can either be interpreted in logit coefficients, which is the logarithm of the odds, that is,

$$\text{Logit}(p) = \log\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + E_i$$

Or in terms of odds ratio, which is simply the exponential of the logit coefficient, that is,

$$\text{Odds Ratio} = e^{\log\left(\frac{p}{1-p}\right)} = e^{\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + E_i}$$

4.6 Predicted Model:

$$\hat{A}_i = 2.917ICI3 + 3.444ICI3 + 3.354ICI3 + 1.257CMP3 + 2.908CMP4 + 4.48CMP5 - 3.618ALV3 - 0.849ALV3 - 0.456ALV4 + 0.945ALV5$$

Predicted probabilities of the dependent variable are estimated as:

$$P(ACCT = \text{“disagree”}) = P(\hat{A}_i + u \leq /cut1) = P(\hat{A}_i + u \leq 0.143469)$$

$$sP(ACCT = \text{“neutral”}) = P(/cut1 < \hat{A}_i + u \leq /cut2) = P(0.143469 < \hat{A}_i + u \leq 3.746745)$$

$$P(ACCT = \text{“Agree”}) = P(/cut2 < \hat{A}_i + u \leq /cut3) = P(0.143469 < \hat{A}_i + u \leq 8.072691)$$

$$P(ACCT = \text{“Strongly agree”}) = P(/cut1 < \hat{A}_i + u) = P(8.072691 < \hat{A}_i + u)$$

For the purpose of this work, interpretation of the results will be done factor by factor using both methods (Logit and Odds Ratio).

1. Internal Control systems

The responses for this factor variable were grouped into 5 categories, namely, 1= Strongly Disagree, 2=Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Disagree. Due to the non-existence of responses for category 1(Strongly Disagree), it was omitted from the analysis with the analysis done only on the other 4 categories. Category 2 (Disagree) was used as the baseline category in relation to others. The variables ICI3, ICI4 and ICI5 in Table (4.11) and (4.12) above represent the Neutral, Agree and Strongly agree categories respectively

for factor variable (Internal Control systems). It can be observed that Internal Control Systems has a positive effect on the Accountability of tertiary institutions in Kano state. This is evidenced on the positive logit coefficients of (ICI3, ICI4 and ICI5) in Table (4.12) above. In terms of Odds ratio, it is safe to say that those who are neutral when it comes to controlling internal systems are 18.5 times more accountable than those who disagree with controlling their internal systems – though this is irrelevant as this category (Neutral) is not significantly different from the baseline category (Disagree), as this is evident from its p-value (0.0703), which is greater than the pre-determined significance level of 0.05. However, those who Agree and Strongly Agree to controlling their internal systems are 31.3 and 28.6 times respectively and more accountable than those who disagree – this statement is valid at the 0.05 significance level evidenced from their p-values (0.031 and 0.045 respectively), with other factors held constant.

2. Compliance with established policies, plans and procedures

The responses for this factor variable were also grouped into 5 categories, namely, 1= Strongly Disagree, 2=Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Disagree. Due to the non-existence of responses for category 1(Strongly Disagree), it was omitted from the analysis, with the analysis done only on the other 4 categories. Category 2(Disagree) was used as the baseline category in relation to others. The variables CMP3, CMP4 and CMP5 in Table (4.11) and (4.12) above represent the Neutral, Agree and Strongly agree categories respectively for factor variable (Compliance with established policies, etc). It can be observed that compliance with established policies, plans and procedures has a positive effect on the Accountability of tertiary institutions in Kano state. This is evidenced on the positive logit coefficients of (CMP3, CMP4 and CMP5) in Table (4.12) above. In terms of

Odds ratio, it is safe to say that those who are neutral when it comes to complying with the established policies, plans and procedures are 3.5 times more accountable than those who disagree. Similarly, those who Agree and Strongly agree to complying with the established policies, etc. are 18.3 and 88.2 times more accountable than those who do not comply, all other factors held constant.

3. Assets and Liability Verification

In similar fashion, the responses for this factor variable were also grouped into 5 categories, namely, 1= Strongly Disagree, 2=Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Disagree. Category 1(Strongly Disagree) was used as the baseline category in relation to others. The variables ALV2, ALV3, ALV4 and ALV5 in Table (4.11) and (4.12) above represent the Disagree, Neutral, Agree and Strongly agree categories respectively for factor variable (Assets and liability verification). It can be observed that Assets and Liability verification has a negative effect on the Accountability of tertiary institutions in Kano state. This is evidenced on the negative logit coefficients of ALV2, ALV3, and ALV4 in Table (4.12) above, with only category 5 (Strongly agree) denoted as ALV5 being positive. In terms of Odds ratio, it can be deduced that a unit increase in tertiary institutions in Kano state who disagree to verify their assets and liabilities results in a 97.31% ($1 - 0.0269 = 0.9731$) decrease in their level of accountability. Similarly, a unit increase in the population of tertiary institutions in Kano state who are neutral to assets and liabilities verification results in a 57.2% ($1 - 0.428 = 0.572$) decrease in the level of accountability. Also, a unit increase in those tertiary institutions who agree to verify their assets and liabilities results in a 36.6% ($1 - 0.6339 = 0.3661$) decrease in their level of accountability. However, the implication of this is that tertiary institutions who strongly agree to verify their assets and liabilities are

2.57 times more accountable than those who strongly disagree to this action, all other factors held constant. Evidenced on the relatively high p-values (0.063, 0.593, 0.772 and 0.566), which are all greater than the pre-determined significance level of 0.05.

More importantly and by implication, it can be deduced that there is no significant difference among the institutions who strongly disagree and those who disagree, are neutral, agree and strongly agree to assets and liabilities verification.

4.5.1 The interpretation of the descriptive statistics of the internal audit independence research question

The descriptive statistics from table 4.2 revealed that internal audit should belong to the first line charge and not answerable to the chief accounting officer of the tertiary institutions, evidenced by the mean response of (4.0384). This view is contrary with the requirement of IIA (2009) which provides that chief internal auditor must ensure that internal audit resources are appropriately sufficient and effectively deployed to achieve the approved plan and should achieve that through the chief accounting officer of their respective organizations.

The respondents were neutral on the view that CEO and top management have the power to demote/ dismiss or influence the removal of internal audit as shown by the mean response value of (2.5384). The mean response value of (2.307) revealed that the respondents disagreed that I.A reports to a higher authority other than Top management of their respective T.I. They were however neutral on the position that familiarization is a major threat to I.A.I (3.2692).

On the issue of timely implementation of audit reports, the respondents were equally of a mixed feeling as shown by the value of (2.9615). A mean response of (3.4615) may indicate

a moderate inclination to the fact that I.A often experience post audit of account instead of pre & post audit activity. On the issue of management perception to the fact I.A as fault finders rather than adding value, the respondents were neutral (2.9615). The organizational independence of internal auditor will be weak when the management has a wrong perception about them as fault finders.

The respondent expressed mixed views on issue of opportunity to seek the assistance of experts during audit process especially when assessing the value of a contract, properties e.t.c with a mean response of (3.0384). Evidence search is a difficult task for I.A. in the various organization audits is about obtaining sufficient and appropriate audit evidence in order to form opinion as whether the financial statement and books of account shows true and fair view of the state of the affairs of the organization.

On the issue of representation in board meetings a mean response value of (3.000) shows that the respondents' opinion is mixed and undecided. Respondents are inclined to the position that to avoid intimidation and temptation, I.A remuneration should be more enhanced by virtue of response value of (4.3071). However they are neutral (2.7692) on the fact that management interferes with the work of I.A

Outcomes also shows that I.A gets appropriate support and cooperation from sectional heads and CEO in the tertiary institution (3.5000) and the argument here is that non-cooperation of sectional with the internal audit unit makes the work of the unit very difficult as they need the views and cooperation of every individual in the evidence search. The respondents are mixed on the appointment of C.I.A to be strictly in the hands of management of tertiary institution with a value of (2.6923). Similarly, they are neutral in

view on the issue of internal auditor's integrity been hindered by the activities of the management evidenced by a mean response of (2.9231). They however agreed that the integrity of I.A is only influenced by ethical code conduct (3.5385).

Moreover, respondents strongly agreed (4.5385) that I.A must possess a professional qualification to remain relevant in the system but are neutral (2.5769) on the view that I.A report to a higher authority without necessarily passing through the management. They are equally neutral with a mean response of (2.8462) on the view that I.A receives abundant budgetary allocation and necessary funding.

On the existence of complete internal audit autonomy in the tertiary institutions, the respondents disagreed with a mean response value of (2.1923) to that assertion. They equally disagreed (1.5000) to the presence of audit committee in the respective tertiary institutions.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the chapters as well as the findings of the research from which conclusions were drawn and recommendations given. The recommendations will strengthen the contemporary internal control system reviews and well-functioning internal audit systems in order to deliver key assurances to all stakeholders against corruption, waste, and inefficiency in public services and guide the various stakeholders of tertiary educational institutions in the country as a whole.

5.2 Summary

This section presents the summary of the work done and the major findings.

5.2.1 Summary of the Work Done

Chapter One, which is the introduction, deals with the general introduction of the study. It comprises the background to the study, statement of the problem, objective of the study, research questions, significance of the study, scope and limitations of the study.

In Chapter Two, which is a literature review, reviewed the related literature, which includes The Concept of Auditing; The Concept of Internal Auditing; The scope and objective of internal auditor; The Internal Audit Function; The Internal Audit function in the Public sectors; Roles of Internal Audit Functions; Internal audit functions and accountability in tertiary institutions; The Concept of Internal Control and Internal Checks; Internal Control in Tertiary Institutions; Accountability; Attributes of Accountability; internal audit independence; Prior Empirical Studies; Theoretical Framework.

Chapter Three being Research Methodology discusses about the research design; population of the study, which includes all the public universities, polytechnics and colleges of education in Kano state; sample size and sampling techniques; source and methods of data collection; validity of the research instruments; reliability of the research instrument; variables under study and their measurement; technique for data analysis (descriptive statistics, correlation matrix, Ordinal logistic regression).

Chapter Four, which is about Results and Discussions, comprises of the table of demographic and descriptive statistics, robustness tests of the variables under study, correlation matrix, analysis of the data using Ordinal logistic regression technique, and the interpretation of results and findings.

Lastly, Chapter Five presents a summary, conclusions, recommendations and the limitations of the study.

5.2.2 Summary of the Major Findings

The researcher examined the impact of internal audit functions on the financial accountability in tertiary institutions in Kano state. The outcome of the analysis specifically disclosed the following:

1. An internal audit function, particularly the internal control system, has a positive and a relatively moderate relationship with the financial accountability of tertiary institutions in Kano state. This is evidenced on its correlation value (0.3349). Also, there is a significant relationship between the internal control system and the financial accountability of tertiary institutions in Kano state. This can be seen from the p-values displayed in Table 4.12 In similar fashion, it is safe to say that an

increase in the level of internal control system of tertiary institutions in Kano state corresponds to an increase in their financial accountability.

2. The compliance structure of the tertiary institutions in Kano state has been found to have a positive and relatively moderate relationship with the financial accountability of such institutions. This is evidenced on its correlation value 0.5336. Also, there is a significant relationship between Compliance with policies, plans and procedures and the financial accountability of tertiary institutions in Kano state. This can be seen from the p-values displayed in Table 4.12. By practical implication and in similar fashion, it is safe to say that an increase in the level of compliance with policies, plans and procedures of tertiary institutions in Kano state corresponds to an increase in their financial accountability.
3. Similarly, Assets and Liabilities verification has been found to have a positive and relatively moderate correlation with the financial accountability of tertiary institutions in Kano state. This is premised on their correlation value 0.4402. Also, there is a non-significant relationship between Asset and liabilities verification and the financial accountability of tertiary institutions in Kano state. This can be seen from the p-values displayed in Table 4.12. Similarly; it is safe to say that by practical implication, an increase in the level of verification of assets and liabilities of tertiary institutions in Kano state does not necessarily correspond to an increase in their financial accountability.

5.3 Conclusions

Based on the evidences available in the extant literatures and the results obtained from the field and discussion thereon, the following major conclusions were drawn:

1. The rate at which tertiary institutions in Kano state review their internal control systems, complies with established policies, plans and procedures they verify their assets and liability positively to impact on their level of accountability.
2. The level of the accountability of tertiary institutions in Kano state is positively impacted upon by the rate at which internal audit functions are carried out. This position is contrary to the assertion of Dambatta (2004), and (Ejoh & Ejom, 2014), who viewed the weakness of internal audit as a result of lack of independence and that there is a growing body of evidence, which suggests serious deficiencies in the accountability and transparency in some Nigerian universities, but it's line with the positions of Onoja et al (2013) and Akosile (2013) who has similar opinion that internal audit functions impact on financial performance.
3. While increasing the rate at which the internal control systems of tertiary institutions in Kano state are reviewed and also complying with the laid down policies, plans and procedure it translates to an increase in their financial accountability, increasing the rate of the verification of assets and liabilities may not have a significant impact on their financial accountability.

5.4 Recommendations

Based on the findings and conclusions reached in this research work, the following recommendations are proffered:

The entire internal audit functions and indeed the internal control system of all the tertiary institutions in Kano state should be further strengthened through adequate and professional staff and also ensuring complete independence of the internal auditors in order to contribute more immensely to their level of accountability. This position coincides with the assertion of Ejoh & Ejom (2014) and Akosile (2013). The entire accounting and auditing staff of all the tertiary institutions in Kano state should be further encouraged, monitored and penalized if found wanting on the level of compliance with established policy, plans and procedures by the government and all relevant stake-holders, as it has been seen that this has a positive significant impact on the level of accountability. So if violated then there is every tendency for their level of accountability to dwindle.

1. Internal control systems of tertiary institutions should be drawn closer to accounting officers to make them more answerable.
2. There should also be adequate/proper recording, verification, authorization and security of all the assets and liabilities of all the tertiary institutions in Kano state to further improve on their level of accountability as this reflects an excellent quality management skill.
3. In terms of the internal audit committee, tertiary institutions that don't have any in place should establish it and those that have should further enhance and entrench it, so as to serve as a check and balance between the audit and management. It will go a very long

way towards general performance, overall accountability and the goal attainment of the tertiary institutions.

REFERENCES

- Adams, M. B. (1994). Agency theory and the internal audit, *Managerial Auditing Journal*, 9(8), 8-12. Available at: <http://www.emeraldinsight.com>.
- Adegbite, E. O. (2010). Accountability and effective management of public sector, a panacea for Nigeria's slow economic growth and development. *International journal of innovative research in technology, Basic and applied sciences* 1(1) 22- 36 retrieved on 23 june 2018 ,from <http://www.international policybrief.org>.
- Adeniyi, A.A. (2004). *Auditing and investigations*. Lagos: Wyse Associates Limited, Nigeria.
- Adesola, S.M. (2002). *Public Sector Financial Management and Accounting Comfort*. Lagos: Press and Publishing Co. Ltd., Nigeria.
- Agresti, A.A. (2002). *Categorical Data Analysis*, (2nd ed.). Hoboken, New Jersey: John Wiley & Sons, Inc.
- Agumou, N. (2006). *Internal Auditing Procedures in Ministries*. Unpublished. Bachelor of Science (B.Sc) project, Imo State University, Owerri, Imo state. Nigeria.
- Aguolu, O. (2009), Designing an effective internal audit group. *Association of Accountancy Bodies in West Africa*, 1(4), 60-76.
- Akosile, A. I. (2013). A comparative assessment of internal control systems in public and private universities in south-west, Nigeria. *Research journal of finance and Accounting*. Osun, N'igeria. 4 (13), 25.
- Alnoor, E. (2010). *The many faces of non-profit accountability*, Working paper, Harvard business school. City press ltd. Pulished on-line on 30 June 2013, from <http://nsukonline.academia.edu/nsukedung>.
- Al-Twajjry, A., Brierley J. A. & Gwilliam D. R. (2003). The Development of Internal Audit in Saudi Arabia: An Institutional Theory Perspective. *Cri Pers. Account.*, 14 (5), 507–531.
- Al-Twajjry, A., Brierley J. A. & Gwilliam D. R. (2004). An examination of the relationship between internal and external audit in Saudi Arabian corporate sector. *Managerial Auditing Journal*, 19(7), 929-994.
- Alugbuo, C. C. (2005). *A Practical Guide to Project Writing*. Owerri, Credo publisher, Nigeria.
- Angela, M. S. (2012), Attributability, Answerability and Accountability In defense of a Unified Account. *University of Chicago Press*, 122(3), 575–589.

- Arena, M., & Azzone, G. (2009). Identifying Organizational Drivers of Internal Audit Effectiveness. *International Journal of Auditing*. 13(20), 43-60.
- Aruwa, S. A. S. (2003). *Government Financial Reporting and Public Accountability in Nigeria*. Retrieved 18 March 2015 from <http://nsukonline.academia.edu/nsukedung>.
- Audit Quality, (2005), Agency theory and the role of audit, The Institute of Chartered Accountants in England and Wales (ICAEW). Retrieved online on 25/7/2015, from (<http://www.theiia.org>).
- Auditing Standard: Audit Manual-Office of the internal Oversight services. International Standards for Professional Practice of Internal Auditing (standards). Retrieved online on 12/9/15, from ([http:// www.aud/theiia.edu.org](http://www.aud/theiia.edu.org)).
- Azubike, J.B. (2005). *Auditing and Investigations (A Nigerian perspective)*. Lagos: Mantle publishers, Lagos. 88-89.
- Badara, S. M. (2012), The Role of Internal Auditors in Ensuring Effective Financial Control at Local Government Level: The Case of Alkaleri L.G.A., Bauchi state. *Research Journal of Finance and Accounting*. 3(4).
- Badara, S. M., & Saidin, Z. S. (2013). Impact of the Effective Internal Control System on the Internal Audit Effectiveness at the Local Government Level: *Journal of Social and Development Sciences*; 4(1), 16-23.
- Belay, Z. (2007), Effective Implementation of Internal Audit Function to Promote Good Governance in the Public Sector, *Ethiopian Civil Service College Research*, Publication Consultancy Coordination Office, Conference Paper, Addis Ababa,
- Carcello, J.V., Hermanson, D.R., & Raghunandan, K. (2005), Factors Associated with U.S. Public Companies' Investment in Internal Auditing. *Accounting Horizons*, 19(2), 69-84.
- Cohen, A., and Sayag, G. (2010), The Effectiveness of Internal Auditing: An Empirical examination of its determinants in Israeli organizations. *Australian Accounting Review*, 20(3), 296-300.
- Conrad, C. (2003), "Stemming the Tide: Corporate Discourse and Agenda Denial in the 2002 Corporate Meltdown Organization" A seminar on auditing practice, retrieved On-line on 30 /7/15 from: <http://www.emeraldinsight.com>.
- Cooper, D. R., & Schindler, P. S. (2001). *Business Research Methods*. New York: Irwin McGraw-Hill.
- Dambatta, S. A. (2004).Enhancing the effectiveness of internal audit at local government level in Kano state; *Bayero international journal of accounting research*,1(1), .Gidan Dabino publisher kano, Nigeria.

- Dandago, K. I. (1999). *Auditing in Nigeria: A Comprehensive Text*. (1st Edition). Kano, Adamu Joji Publishers. Nigeria.
- Dandago, K.I. (2002). *Background Issues to Ethics in Accounting*. 1st Edition. Kano, Adamu Joji publishers. Nigeria.
- David, K., Carmen, A., Isaac, B. and Alain, I., (2013). Metrics for accountability *International Journal of Auditing*, 13, (20).
- Davis, J.H., Schoorman, F., & Donaldson, L., (1997). Toward a Stewardship Theory of Management, *Academy of Management Review*, 22(1), 20-47
- Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1996). Causes and Consequences of Earnings manipulation: An Analysis of Firms Subject to Enforcement Actions by the SEC. *Contemporary Accounting Research* 13(1), 1
- Ejoh, N. O. & Ejom, P. E. (2003). The Effect of Internal Control Activities on Financial Performance of Tertiary Institutions in Nigeria. *Journal of Economics and Sustainable Development*, 5(16).
- Ejoh, N., & Ejom, P.E. (2014). The Effect of Internal Audit Function on the Financial Performance of Tertiary Institutions in Nigeria: *International Journal of Economics Commerce and Management*, 2(10). Available at: <http://ijecm.co.uk/>
- Ezeani, N.S., & Oladele, R. (2012). Auditing as a Tool for Accountability for Efficient and Effective School Administration. An unpublished M.Sc Thesis, Ekiti state university.
- Feizizadeh, A. (2012). *Strengthening Internal Audit Effectiveness*, www.indjst.org/index.php/indj
- Fox, J. (2010). Logit and Probit Models; York SPIDA, Copyright © 2010 by John Fox.
- Francis, T.I. (1986). *Strategies for Evolving Ejective Accountability Measures in Nigeria Universities Education*. Paper presented at the Joint Seminar Organized by the NUC and CVC of Sokoto.
- Frederick, H., James, A., Andy, W. George, R. W., & Bruce, E. W. (2015). *The Effect of the Accountability Variables of Responsibility: Openness and Answerability on authentic leadership*. Regent University Accra, Ghana publications.
- Garko, J. S. (2015). *Corporate Governance Mechanisms and Voluntary Disclosure: Evidence from Listed Industrial Goods Companies in Nigeria*. An unpublished PhD thesis, Bayero university Kano, Kano state.
- Gbabarro, J. (1992). *Managing People and Organizations*. Harvard Business School publications McGraw-Hill Books Co.

- Gehya, E. F. (2014). *Role of Performance audit on expenditure control in Tertiary Institutions in Mubi, Adamawa State*. An unpublished master's Thesis, Federal polytechnic Mubi , Adamawa state.
- Glance, A. (2006).Effectiveness of Internal Control in Local Government: Results of the 2006- 07 Audits, *Journal of Business Ethics*, (24), 115–24.
- IIA, (2009). International standards for the professional practice of internal auditing. Available from <http://www.theiia.org> (Accessed July 20, 2018)
- Internal audit manual (2009). National commission for colleges of education in Nigeria.
- Johnson, I. E.(2004). *Public Sector Accounting and Financial Control*. Lagos: Financial Institutions Training Centre. Nigeria.
- Joyce, O. A. (2011).*Assessment of Financial Control Practices in New Juaben Senior High Commercial School-Koforidua*. A thesis submitted to the department of Institute of Distance Learning, Kwame Nkrumah University of Science and Technology.
- Kaars, F. S. (2011).*The Value Relevance of Auditors' Communications, Financial Statement Users' Understanding of the Messages in the Audit Report*. An MSc Thesis in Accounting, Auditing and Control. Erasmus School of Economics.
- Kamlesh, M. (2014). important statistical formulas .A free online tutorials on statistics and probability developed by Harvey Berman (Phd) and retrieved from <http://stat/index/com.ng> on18/2/2017.
- Kayode, A. O. (2000). *Public Sector Accounting*, (1st edition). Lagos: Hope Publications. Nigeria.
- Koontz, H. & Weihrich, H. (1989).*Management*.9th Edition, Singapore, New York: McGraw-Hill Book Company.
- Kurawa, M. J. & Kabara, (2014).Government Financial Reporting and Public Accountability in Nigeria: Retrieve 18 March 2015 from <http://nsukonline.academia.edu>
- Mahmud, H. & Karma, S. (2007).Guidance on Corporate Responsibility Indicator, *international annual business and economics journal*. (4), pp45-46.
- Mainoma, M. A. (2007). *Financial Control and Management*. A paper presented at ANAN (MCPD).
- Mihret, D., & Yismaw, A. (2007). Internal Audit Effectiveness: An Ethiopian Public Sector Case Study. *Managerial Auditing*. 22(5):470-484.
- Milichamp, A. H. (2005). *Auditing: An Instrument Manual for Accounting Students (6th Edition)*. DP Publications London.

- Modibbo, S. A. (2015). Impact of Internal Audit Unit on the Effectiveness of Internal Control System of Tertiary Educational Institutions in Adamawa State Nigeria: *International Journal of Humanities Social Sciences and Education (IJHSSE)* ,2(5), 140-156. Available at: www.arcjournals.org.
- Ntongo, V. (2012). Internal Controls, Financial Accountability and Service Delivery in Private Health Providers of Kampala District: An unpublished Master's Degree Thesis, Makerere University Uganda.
- Nwachukwu, C.C. (2006). *Management: Theory and Practice*. Abuja: Africana First Publishers Ltd. Nigeria.
- Okereson, C. O. (2013). The challenges of internal audit function in the Nigerian public sector. (a study of Kaduna state ministry of finance), retrieved online on 23/4/2015, from <http://books.google.con.ng>.
- Okezie, B. N. (2008). *Audit and Assurance Services*. Aba, Concept Publishers. Nigeria.
- Okolo, M. N. (2001). The Role of Internal Audit In Financial institutions: A Study of Nigerian Agricultural and Corporative Bank, First Bank of Nigeria and United Bank for Africa Plc; *British Journal of Science*,(5)5, 12-22.
- Okpara, F.O. (2002). Potentials and problems of value for money auditing in Nigeria public sector, *Journal of association of National Accountants of Nigeria Jos*,(7), 24-28.
- Olawn, J.A. (2001). *Auditing and investigation in Nigeria (theory and practice)*. Owerri, Great versatile publishers, Nigeria.
- Onatuyeh, E. A., & Aniefor, S. J. (2013). Impact of Effective Internal Audit Functions on Public Sector Management and Accountability in Edo State, Nigeria. *International Journal of Economic Development Research and Investment*, Edo state, Nigeria, 2(13), 4.
- Onoja, E. E. Michael, A. A., & Friday, A. (2013). An Assessment of Internal Control Audit on the Efficiency of Public Sector in Kogi State Nigeria. *International Journal of Auditing*, 22(3), pp. 45.
- Orjioke A.S. (2002). The role of internal Audit in enhancing Accountability in Tertiary Institution. *Journal of association of National Accountants of Nigeria Jos*,(7), 24-28.
- Oseni, J. E. (2004). Hindrance to Internal Audit Efficiency. *The Nigerian Accountant*. 27(1) 6-8.
- Owler L. & Brown, J. L. (1999). *Cost and Management Accounting Methods*, London: Macdonald and Evans Press. PP. 98.

- Rafiu, O. S. & Oyedokun, A. (2007). Auditing and Accountability Mechanism in the Public Sector. *The International Journal of Applied Economics and Finance*. 26 (2), 182-203.
- Robertson, J. C. (2006). *Auditing; Union Series in Undergraduate Accounting (8th edition)*. California: Wesley Publishers.
- Rogerson, P.A. (2001). Statistical Methods for Geography. London. Sage. Retrieved online from www.how2stats.net on 15/05/2017.
- Sani, A. M. (2009). Evaluation of effective financial control in the public sector: A paper presented at ANAN (MCPD).
- Samaila, I. A. (2014). *Corporate Governance And Financial Reporting Quality In The Nigerian Oil Marketing Industry*. An unpublished PhD thesis, Bayero University Kano, Kano state.
- Sarens, G. & De Beelde, I. (2006). The relationship between Internal audit and senior management: An analysis of expectations and perceptions: *International Journal of Auditing*, 22(3), 45.
- Sekaran, U. (1982). Research Methods for Business, Canada: John Wiley & Sons, Inc.
- Shewamene, H (2014). *Determinants of Internal Audit Effectiveness in the Public Sector, Case Study in Selected Ethiopian Public Sector Offices*: a research paper submitted to the post graduate office in partial fulfillment of the requirement for the master degree of science in accounting and finance (M.Sc.)
- Stamatise, D.H. (2012), Statistical concepts for the quality professionals. Crc press Amazon.com retrieved from <http://books.google.com>, on 18 /02/2017.
- Suleiman, D. M. (2015). *The effects of Internal Audit Functions Outsourcing on the Financial Performance of Deposit Banks in Nigeria*. Ahmadu Bello University press ltd, Zaria, Kaduna state, Nigeria. 36-37.
- Tabachnick, B.G., & Fidell, L.S. (2001). Using Multivariate Statistics (4th ed). Boston, MA; Allyn and Bacon. Retrieved online from www.how2stats.net on 15/05/2017.
- Thompson, L. (2001). *Students' Manual of Auditing (6th Edition)*. Cornwall: Gee Publishing Ltd.
- Tijjani, B. (2003). Efficiency Assessments of Internal Audit in Nigerian Universities. Case of Bayero University, Kano. Background Issues to Ethics in Accounting. Proceedings of the First Annual Conference on Ethical Issues in Accounting, (1), pp. 197–204.

- Tracy, S. (2016). Responsibility Vs Accountability. Partners in leadership, LLC. Regent University, pages 25-31, published on-line on 2 December 2016.
- Tunji, S. T. (2013). Effective Internal Controls System as Antidote for Distress in the Banking Industry in Nigeria; *Journal of Economics and International Business Research (JEIBR)*, 1(5), 106-121.
- Twaijry, A., M. Brierley, J. A., & Gwilliam, D. R. (2004). An Examination of the Relationship between Internal and External Audit in the Saudi Arabian Corporate Sector. *Managerial Auditing Journal*, 19 (7): 929-949.
- Van-Gansberghe, C. N. (2005). Internal Audit: Finding its Place in Public Finance Management; Available at: <http://www.worldbank.org/wbi/governance/pefa/index.html>
- Walker, J. M., & Lawler, J.J. (1982). University Administrators and Faculty Bargaining: *Journal of the Association for Institutional Research*. 16 (4) 353-372. Available at: (<http://www.theiia.org>) retrieved on 20/5/16.
- Zain, M.M., N.P. Subramaniam and J. Goodwin (2004). Internal auditors' assessment of their contribution to financial statement audits: The relation with audit committee and internal audit function characteristics. *International Journal of Auditing*, 10(1): 1-18
- Zuriekat, S., & Alramashdeh, A. (2011). Performance Measurement Usage in Developing Countries: the Case Study of Banking Sectors in Sudan. *Science and academic journal and publications*. 13 (8) 45-49.

APPENDIX A

Questionnaire

The Impact of Effective Internal Audit Functions on Accountability: Evidence from Tertiary Institution in Kano State

I. Introduction

Dear Respondent, my name is Sholadoye Olaitan Latifat a post graduate student of accounting department of Bayero University Kano and I am carrying out an independent research work on the aforementioned topic.

This research work is aimed at carrying out a survey on the impact of effective internal audit functions in Tertiary Institutions accountability.

Through this brief survey, your answers will be helpful in enhancing the genuineness of this research work .Your response will only be used for Research purpose and will be treated with utmost confidentiality.

II. Questions

Directions: Please indicate your answer or level of agreement or disagreement with each of the statement by ticking () any, from the given options. Note that 5 – Strongly Agreed, 4- Agreed, 3- Neutral, 2 – Disagreed, 1 – Strongly Disagreed.

III. Demographic Data

A) Gender

i. Male ()

ii. Female ()

B) Age bracket

i. 20 – 30 Years ()

ii. 31 - 40 Years ()

iii. 41 - 50 Years ()

iv. Above 50 Years ()

C. Nature of Job in the public sector

i. Accountant ()

ii. Auditor ()

iii. Others ()

D. Working experience

i. Below 5Years ()

ii. 5 - 10 Years ()

iii. 11 - 15 Years ()

iv. Over 15 Years ()

E. Educational Background

i. Waec / School Certificate ()

ii. Diploma / N.C.E ()

iii. Bachelors Degree / H.N.D ()

iv. Post Graduate Qualification ()

Questions

Note that 5 – Strongly Agreed, 4- Agreed, 3- Neutral, 2 – Disagreed, 1 – Strongly Disagreed.

Internal Audit functions

Internal Control systems review

S/ N	Question	5	4	3	2	1
1	The control environment comprises of the integrity and ethical values of the institution a well designed organizational structure and proper assignment of authority and responsibility					
2	Monitoring and control activities are adequately entrenched through conduct of periodic evaluation based on risk management.					
3	Information and communication are well managed through generating and utilizing relevant and qualitative information.					
4	Control activities are enhanced by ensuring authorizations and approvals, verifications, reconciliations and segregation of duty at all levels of this tertiary institution					
5	The purpose and authority of internal audit is not hindered particularly during evaluation, monitoring and fraud detection activities					
6	The institutions organogram/ structure allow for effective internal audit task performance and risk management					
7	The internal audit in tertiary institution is sufficiently capable of streamlining excesses and sharp corrupt practices and eliminates activities involving risk.					
8	Internal Audit performs regular performance audit in this tertiary institution					
9	Internal audit often access internal control system					
10	For the purpose of improving organizational processes, this tertiary institution accepts and utilizes the knowledge of internal audit.					
11	Internal audit ensures that operating procedures are consistent and are in accordance with objectives of the tertiary institution.					
12	In tertiary institutions, internal audit is considered as relevant and value adding.					
13	Tertiary institutions often permits internal auditor staff for career development and professional training.					
14	The internal auditor reports are highly considered for decision making and internal controls by the management					
15	It is possible to audit and review each activity at scheduled time, and cover the planned scope of the auditing activity.					

Compliance with established policy, plans and procedures.

1	Top management of tertiary institutions often answer audit queries within the approved time frame.					
2	There is strict adherence to established standards and code of ethics in resources management of the institution					
3	Internal audit ensures that laws ,regulations and policies establishing the institution were appropriately complied					
4	Internal audit ensures compliance audit of this tertiary institution					
5	Internal audit creates sessions for presentation and discussions of audit report					
6	There is an established policy and procedure/ manual that guides the audit activity and functions					
7	The internal auditor reports are highly considered for decision making and internal controls by the management.					
8	Internal auditors can effectively identify and report any noncompliance activities.					
9	Staff of this institution uses the recommendations, criticisms and information provided by internal auditor for decision making.					
10	Top management of tertiary institutions often complies with audit recommendations within the approved time frame.					

Asset and Liability Verification

1	Audit verify the legal ownership and possession of the asset of the institution					
2	Audit ensures the correct valuation of asset and liability of this institution					
3	Internal audit department ascertain that the asset of this institution is free from any charge					
4	Internal audit department successfully carryout financial and non-financial activities of the institution					
5	Routine physical audit of the existence of asset is often carried out in this tertiary institution.					
6	Onward authorization before asset acquisition is well entrenched in this institution.					
7	Internal audit ensures effective costing on all assets acquired for this institution.					
8	Assets and liability are adequately presented in the accounts of this institution in accordance to generally acceptable accounting principles.					
9	There is adequate insurance policy and indemnification on all asset of this institution.					
10	Disposal and exchange of redundant asset is executed in-line with established guidelines in this institution.					

Accountability

Answerability

1	Rewards, sanctions and legal responsibilities are executed with just in tertiary institutions					
2	Actions are essentially assigned to actors for establishing legal responsibilities in case of failures to comply with commitments.					
3	Line of authority in tertiary institution is properly structured to allow for effective Segregation of duties and stewardship reporting					
4	Audit carryout routine fraud detection investigation activities					
5	Arithmetic and accounting controls are applied by the account unit					

Responsibility

6	Financial planning, control and monitoring are adequate in this tertiary institution					
7	Accounting officers reports fairly and accurately on performance results vis –a –vis mandated roles and /or plans					
8	There is adequate imposition of penalties or sanctions against those who have misapplied the resources for purposes other than intended					
9	There is adequate attribution of responsibility ,check and balance during procurements and when rendering services					
10	Internal auditors are capable of determining the nature and frequency of non compliance activities.					
11	management discusses internal audit report frequently					

Transparency

12	Records of assets and liabilities are often taken and monitored					
13	All expenses are executed in-line with budgetary provisions and are well monitored and supervised					
14	Audit ensures that internal actions of the system can be described by observing the external outputs of the system					
15	I perform the auditing/accounting activities without any interference from anybody and without any influence from the office/sector.					
16	The work of internal audit is performed with modern technology that uses computerized data tools and specific IA software so as to aid transparency.					
17	I receive full cooperation, access to records and information from my office/sector					
18	There is transparency in handling / accounting for excess revenues in this tertiary institution					
19	Expected result are clear, measurable and quantifiable in order to facilitate easy comparison between the budgets and actual results					
20	All revenues and expenditures are disclosed in the financial statement					

Thanks, best regards.

Generated data

S/N	ACCT	ICI	CMP	ALV
1	3	4	3	4
2	4	5	4	5
3	4	4	3	4
4	3	4	3	4
5	4	4	4	4
6	4	4	4	4
7	3	4	3	4
8	3	4	3	3
9	4	4	4	4
10	4	4	4	4
11	4	4	2	4
12	4	4	4	4
13	4	4	3	4
14	4	4	4	4
15	4	5	5	4
16	4	3	4	4
17	3	4	4	4
18	5	5	4	5
19	4	4	4	4
20	4	4	4	4
21	4	4	4	3
22	5	5	5	5
23	4	4	3	3
24	5	3	4	4
25	4	4	4	4
26	4	4	3	3
27	4	3	3	4
28	4	4	3	4
29	4	3	4	3
30	3	5	3	3
31	4	4	4	4
32	3	4	4	4
33	4	4	4	4
34	4	4	4	5
35	3	4	3	3
36	4	4	4	4
37	5	4	4	4
38	4	4	5	5
39	4	4	4	4
40	3	4	4	4
41	4	4	4	4

42	3	4	3	4
43	3	3	2	3
44	4	4	4	4
45	4	4	4	3
46	4	4	4	4
47	3	4	4	4
48	3	4	3	4
49	4	5	4	4
50	4	3	3	3
51	5	4	4	4
52	4	4	3	4
53	4	4	4	5
54	4	3	4	4
55	4	4	4	5
56	4	4	4	4
57	4	4	4	4
58	4	5	5	4
59	2	3	4	2
60	3	4	3	4
61	4	5	4	5
62	4	4	3	4
63	3	4	3	4
64	4	4	4	4
65	5	5	5	5
66	4	4	3	4
67	4	4	4	4
68	4	4	4	4
69	4	4	4	4
70	4	4	4	4
71	4	4	4	4
72	3	4	4	3
73	4	4	4	4
74	5	4	4	5
75	3	5	4	4
76	3	4	4	4
77	5	4	4	4
78	5	4	4	4
79	4	3	4	3
80	4	4	4	5
81	4	4	3	1
82	4	4	5	4
83	3	4	3	2
84	3	4	3	3

85	5	4	5	4
86	5	4	4	4
87	3	3	2	1
88	3	5	4	3
89	4	4	4	4
90	4	4	4	4
91	4	4	3	3
92	3	4	4	4
93	4	4	4	4
94	5	5	5	5
95	4	5	4	4
96	4	5	4	3
97	4	5	4	5
98	4	4	3	3
99	3	4	3	4
100	3	4	3	3
101	4	4	4	4
102	4	4	4	4
103	2	2	2	4
104	4	5	4	4
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210	4	4	4	4
211	5	5	5	4
212	4	4	4	4
213	5	5	5	4

MULTICOLLINEARITY

. vif

Variable	VIF	1/VIF
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-----+-----

CMP	1.59	0.628887
-----	------	----------

ICS	1.42	0.703689
-----	------	----------

ALV	1.38	0.725114
-----	------	----------

-----+-----

Mean VIF	1.46	0.685897
----------	------	----------

NORMALITY TEST

. swilk e

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
e	213	0.95957	6.372	4.274	0.00001

.

RELIABILITY

. alpha ICS1 ICS2 ICS3 ICS4 ICS5 ICS6 ICS7 ICS8 ICS9 ICS10 ICS11 ICS12 ICS13 ICS14 ICS15, std

Test scale = mean(standardized items)

Average interitem correlation: 0.3193

Number of items in the scale: 15

Scale reliability coefficient: 0.8756

. alpha CMP1 CMP2 CMP3 CMP4 CMP5 CMP6 CMP7 CMP8 CMP9 CMP10, std

Test scale = mean(standardized items)

Average interitem correlation: 0.3390

Number of items in the scale: 10

Scale reliability coefficient: 0.8368

. alpha ALV1 ALV2 ALV3 ALV4 ALV5 ALV6 ALV7 ALV8 ALV9 ALV10, std

Test scale = mean(standardized items)

Average interitem correlation: 0.3828

Number of items in the scale: 10

Scale reliability coefficient: 0.8612

alpha ACCT1 ACCT2 ACCT3 ACCT4 ACCT5 ACCT1 ACCT2 ACCT3 ACCT4 ACCT5 ACCT6 ACCT1 ACCT2
ACCT3 ACCT4 ACCT5 ACCT6 ACCT7 ACCT8 ACCT9

Test scale = mean(standardized items)

Average interitem covariance: .3580

Number of items in the scale: 20

Scale reliability coefficient: 0.9177

alpha ICI1 ICI2 ICI3 ICI4 ICI5 ICI6 ICI7 ICI8 ICI9 ICI10 ICI11 ICI12 ICI13 ICI14 ICI15 CMP1 CMP2 CMP3
CMP4 CMP5 CMP6 CMP7 CMP8 CMP9 CMP10 ALV1 ALV2 ALV3 ALV4 ALV5 ALV6 ALV7 ALV8 ALV9
ALV10

Test scale = mean(standardized items)

Average interitem covariance: .2860

Number of items in the scale: 35

DESCRIPTIVE STATISTICS AND MULTICOLLINEARITY TEST

Variable	Obs	Mean	Std. Dev.	Min	Max
ACCT	213	3.896714	.650572	2	5
ICI	213	4.032864	.5858792	2	5
CMP	213	3.812207	.6676072	2	5
ALV	213	3.892019	.702141	1	5
GENDER	210	1.071429	.2581548	1	2
AGE	209	2.363636	.8780541	1	4
JOBNATURE	212	1.433962	.7156857	1	3
WKEXP	210	2.647619	1.119475	1	4
EDUQUALIF	211	3.21327	.7413079	1	4

```
. spearman ACCT ICI CMP ALV  
(obs=213)
```

	ACCT	ICI	CMP	ALV
ACCT	1.0000			
ICI	0.3349	1.0000		
CMP	0.5336	0.4455	1.0000	
ALV	0.4402	0.3545	0.4982	1.0000

TABLE STATISTICS

ACCT	Freq.	Percent	Cum.
Disagree	6	2.82	2.82
Neutral	39	18.31	21.13
Agree	139	65.26	86.38
Strongly Agree	29	13.62	100.00
Total	213	100.00	

ICI	Freq.	Percent	Cum.
Disagree	4	1.88	1.88
Neutral	21	9.86	11.74
Agree	152	71.36	83.10
Strongly Agree	36	16.90	100.00
Total	213	100.00	

CMP	Freq.	Percent	Cum.
Disagree	6	2.82	2.82
Neutral	53	24.88	27.70
Agree	129	60.56	88.26
Strongly Agree	25	11.74	100.00
Total	213	100.00	

ALV	Freq.	Percent	Cum.
Strongly Disagree	2	0.94	0.94
Disagree	6	2.82	3.76
Neutral	35	16.43	20.19
Agree	140	65.73	85.92
Strongly Agree	30	14.08	100.00
Total	213	100.00	

gender	Freq.	Percent	Cum.
Male	195	92.86	92.86
Female	15	7.14	100.00
Total	210	100.00	

age	Freq.	Percent	Cum.
20 - 30 years	26	12.44	12.44
31 - 40 years	111	53.11	65.55
41 - 50 years	42	20.10	85.65
> 50 years	30	14.35	100.00
Total	209	100.00	

job nature	Freq.	Percent	Cum.
Accountants	148	69.81	69.81
Auditors	36	16.98	86.79
Others	28	13.21	100.00
Total	212	100.00	

wk exp	Freq.	Percent	Cum.
< 5 years	38	18.10	18.10
5 - 10 years	67	31.90	50.00
11 - 15 years	36	17.14	67.14
> 15 years	69	32.86	100.00
Total	210	100.00	

edu qualif	Freq.	Percent	Cum.
WAEC/ School leaving certificate	5	2.37	2.37
Diploma/ N.C.E	25	11.85	14.22
B.Sc./ H.N.D	101	47.87	62.09
Post Graduate qualification	80	37.91	100.00
Total	211	100.00	

**

Key
<i>frequency</i>
<i>chi2 contribution</i>
<i>row percentage</i>
<i>column percentage</i>
<i>cell percentage</i>

ICI	ACCT				Total
	Disagree	Neutral	Agree	Strongly	
Disagree	3	1	0	0	4
	74.0	0.1	2.6	0.5	77.2
	75.00	25.00	0.00	0.00	100.00
	50.00	2.56	0.00	0.00	1.88
	1.41	0.47	0.00	0.00	1.88
Neutral	3	6	11	1	21
	9.8	1.2	0.5	1.2	12.8
	14.29	28.57	52.38	4.76	100.00
	50.00	15.38	7.91	3.45	9.86
	1.41	2.82	5.16	0.47	9.86
Agree	0	29	106	17	152
	4.3	0.0	0.5	0.7	5.5
	0.00	19.08	69.74	11.18	100.00
	0.00	74.36	76.26	58.62	71.36
	0.00	13.62	49.77	7.98	71.36
Strongly Agree	0	3	22	11	36
	1.0	2.0	0.1	7.6	10.7
	0.00	8.33	61.11	30.56	100.00
	0.00	7.69	15.83	37.93	16.90
	0.00	1.41	10.33	5.16	16.90
Total	6	39	139	29	213
	89.1	3.3	3.7	10.0	106.1
	2.82	18.31	65.26	13.62	100.00
	100.00	100.00	100.00	100.00	100.00
	2.82	18.31	65.26	13.62	100.00

ALV	ACCT				Total
	Disagree	Neutral	Agree	Strongly	
Strongly Disagree	0	1	1	0	2
	0.1	1.1	0.1	0.3	1.5
	0.00	50.00	50.00	0.00	100.00
	0.00	2.56	0.72	0.00	0.94
	0.00	0.47	0.47	0.00	0.94
Disagree	3	3	0	0	6
	47.4	3.3	3.9	0.8	55.4
	50.00	50.00	0.00	0.00	100.00
	50.00	7.69	0.00	0.00	2.82
	1.41	1.41	0.00	0.00	2.82
Neutral	1	12	21	1	35
	0.0	4.9	0.1	3.0	8.0
	2.86	34.29	60.00	2.86	100.00
	16.67	30.77	15.11	3.45	16.43
	0.47	5.63	9.86	0.47	16.43
Agree	2	22	102	14	140
	1.0	0.5	1.2	1.3	4.1
	1.43	15.71	72.86	10.00	100.00
	33.33	56.41	73.38	48.28	65.73
	0.94	10.33	47.89	6.57	65.73
Strongly Agree	0	1	15	14	30
	0.8	3.7	1.1	24.1	29.7
	0.00	3.33	50.00	46.67	100.00
	0.00	2.56	10.79	48.28	14.08
	0.00	0.47	7.04	6.57	14.08
Total	6	39	139	29	213
	49.3	13.5	6.4	29.5	98.7
	2.82	18.31	65.26	13.62	100.00
	100.00	100.00	100.00	100.00	100.00
	2.82	18.31	65.26	13.62	100.00

gender	ACCT				Total
	Disagree	Neutral	Agree	Strongly	
Male	6	36	126	27	195
	0.0	0.0	0.0	0.0	0.0
	3.08	18.46	64.62	13.85	100.00
	100.00	92.31	92.65	93.10	92.86
	2.86	17.14	60.00	12.86	92.86
Female	0	3	10	2	15
	0.4	0.0	0.0	0.0	0.5
	0.00	20.00	66.67	13.33	100.00
	0.00	7.69	7.35	6.90	7.14
	0.00	1.43	4.76	0.95	7.14
Total	6	39	136	29	210
	0.5	0.0	0.0	0.0	0.5
	2.86	18.57	64.76	13.81	100.00
	100.00	100.00	100.00	100.00	100.00
	2.86	18.57	64.76	13.81	100.00

age	ACCT				Total
	Disagree	Neutral	Agree	Strongly	
20 - 30 years	2	4	19	1	26
	2.1	0.1	0.3	1.9	4.4
	7.69	15.38	73.08	3.85	100.00
	33.33	10.53	13.97	3.45	12.44
	0.96	1.91	9.09	0.48	12.44
31 - 40 years	2	20	68	21	111
	0.4	0.0	0.2	2.0	2.7
	1.80	18.02	61.26	18.92	100.00
	33.33	52.63	50.00	72.41	53.11
	0.96	9.57	32.54	10.05	53.11
41 - 50 years	1	6	28	7	42
	0.0	0.4	0.0	0.2	0.6
	2.38	14.29	66.67	16.67	100.00
	16.67	15.79	20.59	24.14	20.10
	0.48	2.87	13.40	3.35	20.10
> 50 years	1	8	21	0	30
	0.0	1.2	0.1	4.2	5.5
	3.33	26.67	70.00	0.00	100.00
	16.67	21.05	15.44	0.00	14.35
	0.48	3.83	10.05	0.00	14.35
Total	6	38	136	29	209
	2.6	1.7	0.6	8.3	13.2
	2.87	18.18	65.07	13.88	100.00
	100.00	100.00	100.00	100.00	100.00
	2.87	18.18	65.07	13.88	100.00

job nature	ACCT				Total
	Disagree	Neutral	Agree	Strongly	
Accountants	4	25	92	27	148
	0.0	0.2	0.2	2.3	2.6
	2.70	16.89	62.16	18.24	100.00
	66.67	64.10	66.67	93.10	69.81
	1.89	11.79	43.40	12.74	69.81
Auditors	0	6	29	1	36
	1.0	0.1	1.3	3.1	5.5
	0.00	16.67	80.56	2.78	100.00
	0.00	15.38	21.01	3.45	16.98
	0.00	2.83	13.68	0.47	16.98
Others	2	8	17	1	28
	1.8	1.6	0.1	2.1	5.6
	7.14	28.57	60.71	3.57	100.00
	33.33	20.51	12.32	3.45	13.21
	0.94	3.77	8.02	0.47	13.21
Total	6	39	138	29	212
	2.9	1.8	1.6	7.5	13.8
	2.83	18.40	65.09	13.68	100.00
	100.00	100.00	100.00	100.00	100.00
	2.83	18.40	65.09	13.68	100.00

edu qualif	ACCT				Total
	Disagree	Neutral	Agree	Strongly	
WAEC/ School leaving	0	1	4	0	5
	0.1	0.0	0.2	0.7	1.0
	0.00	20.00	80.00	0.00	100.00
	0.00	2.63	2.90	0.00	2.37
	0.00	0.47	1.90	0.00	2.37
Diploma/ N.C.E	2	3	16	4	25
	2.3	0.5	0.0	0.1	2.9
	8.00	12.00	64.00	16.00	100.00
	33.33	7.89	11.59	13.79	11.85
	0.95	1.42	7.58	1.90	11.85
B.Sc./ H.N.D	4	14	69	14	101
	0.4	1.0	0.1	0.0	1.5
	3.96	13.86	68.32	13.86	100.00
	66.67	36.84	50.00	48.28	47.87
	1.90	6.64	32.70	6.64	47.87
Post Graduate qualifi	0	20	49	11	80
	2.3	2.2	0.2	0.0	4.7
	0.00	25.00	61.25	13.75	100.00
	0.00	52.63	35.51	37.93	37.91
	0.00	9.48	23.22	5.21	37.91
Total	6	38	138	29	211
	5.2	3.6	0.5	0.8	10.1
	2.84	18.01	65.40	13.74	100.00
	100.00	100.00	100.00	100.00	100.00
	2.84	18.01	65.40	13.74	100.00

Parameter Estimates of Ordinal Logistic regression

Ordered logistic regression	Number of obs	=	213	Ordered logistic regression	Number of obs	=	213
	LR chi2(10)	=	103.06		LR chi2(10)	=	103.06
	Prob > chi2	=	0.0000		Prob > chi2	=	0.0000
Log likelihood = -153.25336	Pseudo R2	=	0.2516	Log likelihood = -153.25336	Pseudo R2	=	0.2516

ACCT	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
_IICI_3	18.49063	29.79998	1.81	0.070	.7854768	435.2815
_IICI_4	31.29789	50.05468	2.15	0.031	1.362039	719.185
_IICI_5	28.61132	47.39223	2.02	0.043	1.113255	735.3282
_ICMP_3	3.514025	4.273021	1.03	0.301	.3241542	38.09412
_ICMP_4	18.31267	22.66148	2.35	0.019	1.619609	207.0584
_ICMP_5	88.21313	119.486	3.31	0.001	6.202525	1254.579
_IALV_2	.0268602	.0521623	-1.86	0.063	.0005971	1.208192
_IALV_3	.4279679	.679665	-0.53	0.593	.0190371	9.621055
_IALV_4	.6338745	.9964266	-0.29	0.772	.0291036	13.80574
_IALV_5	2.571451	4.227254	0.57	0.566	.1025352	64.48869
/cut1	.143469	1.985284			-3.747616	4.034554
/cut2	3.746745	2.094809			-.359004	7.852495
/cut3	8.072691	2.120053			3.917463	12.22792

ACCT	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
_IICI_3	2.917264	1.611626	1.81	0.070	-.2414644	6.075993
_IICI_4	3.443551	1.599299	2.15	0.031	.3089827	6.578119
_IICI_5	3.353802	1.656415	2.02	0.043	.107288	6.600317
_ICMP_3	1.256762	1.215991	1.03	0.301	-1.126536	3.64006
_ICMP_4	2.907593	1.237476	2.35	0.019	.4821849	5.333001
_ICMP_5	4.479756	1.354514	3.31	0.001	1.824956	7.134555
_IALV_2	-3.617108	1.941992	-1.86	0.063	-7.423342	.1891254
_IALV_3	-.8487071	1.588122	-0.53	0.593	-3.961368	2.263954
_IALV_4	-.4559043	1.571962	-0.29	0.772	-3.536893	2.625085
_IALV_5	.9444704	1.643918	0.57	0.566	-2.277549	4.16649
/cut1	.143469	1.985284			-3.747616	4.034554
/cut2	3.746745	2.094809			-.359004	7.852495
/cut3	8.072691	2.120053			3.917463	12.22792

APPENDIX B

QUESTIONNAIRE ON INTERNAL AUDIT INDEPENDENCE

Assessment of the internal audit independence of Tertiary Institutions in Kano State

I. Introduction

Dear Respondent, my name is Sholadoye Olaitan Latifat a post graduate student of department of Accounting Bayero University, Kano. I am carrying out an independent research work on the Assessment of the internal audit independence in Tertiary Institutions in Kano State.

Kindly spare some of your precious time to participate in this research work .Responses will only be used for Research purpose and will be treated with utmost confidentiality.

II. Questions

Directions: Please indicate your answer or level of agreement or disagreement with each of the statement by ticking () any, from the given options.

III. Demographic Data

A) Gender

- i. Male ()
- ii. Female ()

B) Age bracket

- i. 20 – 30 Years ()
- ii. 31 - 40 Years ()
- iii. 41 - 50 Years ()
- iv. Above 50 Years ()

C. Nature of Job in the public sector

- i. Accountant ()
- ii. Auditor ()
- iii. Others ()

D. Working experience

- i. Below 5Years ()
- ii. 5 - 10 Years ()
- iii. 11 - 15 Years ()
- iv. Over 15 Years ()

E. Educational Background

- i. Bachelors Degree / H.N.D ()
- ii. Post Graduate Qualification ()

4- Agreed, 3- Neutral, 2 – Disagreed, 1 – Strongly Disagreed.

Assessment of the internal audit independence of Tertiary Institutions in Kano State

S/ N	Question	5	4	3	2	1
1	Internal Auditor should belong to the 1 st line charge and not answerable to the chief accounting officer of a tertiary institution					
2	Chief Executive Officer's and Management have the power to demote/ dismiss or influence the removal of an internal auditor					
3	Internal Auditor report to a higher authority other than the management of this tertiary institution.					
4	Familiarization is a major threat to internal auditor independence.					
5	Internal Auditors report gets timely implementation by management of this tertiary institution.					
6	Internal audit often experience post audit of account instead of pre & post vetting activity					
7	Management has wrong perception about internal auditors as fault finders rather than adding value to the organization.					
8	No opportunity to seek the assistance of experts during audit especially when assessing value of a contract or property.					
9	Internal auditors are not given a representation in Board meeting					
10	To avoid intimidation and temptation, internal auditor's remuneration should be more enhanced					
11	Management interferes with the work of internal auditors.					
12	Internal auditor gets appropriate support and cooperation from sectional heads and chief executive officers in this tertiary institution.					
13	Internal auditor appointment is strictly in the hands of the management of this tertiary Institution.					
14	Internal auditor's integrity is hindered by activities management.					
15	Internal auditor's integrity is only influenced by ethical code of conduct					
16	Internal auditor must possess a professional qualification to remain relevant in the system.					
17	Internal auditor is at liberty to report to a higher/external authority without necessarily passing through the management.					
18	Internal audit in this tertiary institution receives abundant budgetary allocation and necessary funding towards effectively and efficiently discharging her mandate.					
19	There exists complete internal audit autonomy in this tertiary institution.					
20	There exist an audit committee in this tertiary institution					

gender age N WORK working exp edu background

1	4	2	4	2
1	3	2	3	2
1	4	2	3	2
1	4	2	4	2
1	3	2	4	2
1	4	2	4	2
1	3	2	2	1
1	4	2	3	2
1	2	2	2	1
1	3	2	1	2
1		3		
1	3	3		2
1	3	1	2	2
1	4	3		2
1	2	3	3	2
1	3	1	4	2
1	4	3	4	2
1	3	3	4	2
1	4	1	3	1
1	3	1	4	2
1	4	1	4	2
2	3	1	3	2
1	3	1	4	2
1	2	1	4	2
1	3	1	3	2
1	3	1		2

1LA	PDDR	RHA	FMT	RTIM	PAA	MWP	OSAE	RBM	AIT	MIW	A
5	2	2	2	4	2	2	2	2	5	1	
5	2	2	2	3	3	2	4	4	5	1	
5	3	4	1	4	4	4	2	4	5	2	
4	4	4	2	4	3	4	2	2	5	1	
4	3	2	4	2	4	4	3	4	5	4	
4	2	2	5	1	5	5	4	4	5	4	
4	2	2	4	2	4	4	2	4	1	5	
5	2	1	5	1	5	5	4	5	5	5	
5	2	2	5	2	4	5	4	4	5	5	
5	4	2	4	3	4	2	4	4	5	2	
2	2	2	2	5	4	2	4	1	4	2	
4	4	4	4	4	3	1	1	4	3	1	
2	2	2	4	2	4	2	2	2	4	2	
5	3	2	2	2	4	2	3	2	4	2	
4	2	2	4	2	4	4	2	4	4	4	
5	3	2	4	1	4	4	4	2	4	4	
2	2	2	2	4	2	2	4	1	5	2	
3	2	2	2	4	2	2	3	2	4	2	
2	2	2	5	5	4	2	2	3	4	4	
4	2	2	2	4	2	2	5	2	5	1	
5	1	1	5	1	4	5	4	4	5	5	
5	4	2	2	4	2	2	3	4	4	1	
3	2	5	2	4	2	1	2	2	3	1	
5	2	2	5	1	5	5	5	5	5	5	
4	3	2	4	4	2	2	2	2	4	2	
4	4	1	2	4	4	2	2	1	4	4	

```
. *(22 variables, 26 observations pasted into data editor)
```

```
. summarize la pddr rha fmt rtim paa mwp osae rbm ait miw ascsc ashm iham iiecc ppq lrham raba ciao ac
```

Variable	Obs	Mean	Std. Dev.	Min	Max
la	26	4.038462	1.076319	2	5
pddr	26	2.538462	.8593378	1	4
rha	26	2.230769	.9511127	1	5
fmt	26	3.269231	1.34336	1	5
rtim	26	2.961538	1.341067	1	5
paa	26	3.461538	1.028816	2	5
mwp	26	2.961538	1.37057	1	5
osae	26	3.038462	1.112862	1	5
rbm	26	3	1.264911	1	5
ait	26	4.307692	.928191	1	5
miw	26	2.769231	1.557118	1	5
ascsc	26	3.5	.8124038	2	4
ashm	26	2.692308	1.225373	1	5
iham	26	2.923077	1.787134	1	5
iiecc	26	3.538462	1.475961	1	5
ppq	26	4.538462	.7605666	2	5
lrham	26	2.576923	.9868364	1	4
raba	26	2.846154	1.255143	1	5
ciao	26	2.192308	1.16685	1	5
ac	26	1.5	.7071068	1	4

```
. summarize gender age nwork workingexp edubackground
```

Variable	Obs	Mean	Std. Dev.	Min	Max
gender	26	1.038462	.1961161	1	2
age	25	3.24	.663325	2	4
nwork	26	1.846154	.7844645	1	3
workingexp	22	3.272727	.8827348	1	4
edubackground	25	1.88	.3316625	1	2

```
.
```