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**INTERNAL AUDIT QUALITY AND ORGANIZATIONAL
PERFORMANCE IN NIGERIAN FEDERAL UNIVERSITIES:
THE MODERATING EFFECTS OF TOP MANAGEMENT
SUPPORT**



**DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA
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**INTERNAL AUDIT QUALITY AND ORGANIZATIONAL PERFORMANCE
IN NIGERIAN FEDERAL UNIVERSITIES: THE MODERATING EFFECTS
OF TOP MANAGEMENT SUPPORT**



**Thesis Submitted to
Tunku Puteri Intan Safinaz School of Accountancy,
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In Fulfillment of the Requirement for the Degree of Doctor of Philosophy**



**TUNKU PUTERI INTAN SAFINAZ
SCHOOL OF ACCOUNTANCY
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ABSTRACT

Internal audit quality is one of the key factors in achieving superior organizational performance. However, upon all the existence of internal audit (IA) departments in Nigerian federal universities, poor internal control and ineffectiveness in the financial operations were identified. Therefore, this study examined the relationship between internal audit quality dimensions consisting of IA competence, IA independence, IA size, IA reporting line and timeliness of IA report and organizational performance with moderating effect of top management support in Nigerian federal universities. A total of 600 samples of internal auditors were drawn from 40 Nigerian federal universities. Data was collected using questionnaires, of which 313 responses were analysed through descriptive and inferential statistics for testing the hypotheses. The result of direct relationship of the constructs of the study reveals that there are positive relationships between IA competence, timeliness of IA report, IA reporting line and top management support with organizational performance. However, negative relationships between IA independence and IA size were identified. The result of moderating effect of top management support reveals that IA independence, IA size and IA competence produced positive and significant relationship with organizational performance. While, negative relationships between IA reporting line and timeliness of IA report were identified. The practical and the theoretical contributions of this study indicates that stewardship theory and resource dependency theory are important in explaining the effect of top management support to organizational performance. The result further implies that Nigerian federal universities are capable of achieving high level of performance with new policy initiatives by the regulatory Agencies and support from top management for IA independence, IA competent and good sizeable number of IA staff. The study also contributed to the literature of internal audit quality and organizational performance relationships with moderating effect of top management support and the IA practice in Nigerian.

Keywords: internal audit quality, top management support, organizational performance, Nigerian federal universities.

ABSTRAK

Kualiti audit dalaman merupakan salah satu faktor utama untuk memperoleh keunggulan pencapaian organisasi. Namun, walaupun terdapat kewujudan jabatan audit dalaman di universiti awam Nigeria, kawalan dalaman yang lemah dan ketidakberkesanan dalam operasi kewangan telah dikenal pasti. Oleh itu, kajian ini meneliti hubungan antara dimensi kualiti audit dalaman yang terdiri daripada keberkesanan, kebebasan, saiz, aliran laporan dan ketepatan masa audit dalaman, dan pencapaian organisasi dengan kesan penyerdehanaan sokongan pihak atasan di universiti awam Nigeria. Sebanyak 600 sampel juruaudit dalaman telah diambil daripada 40 buah universiti awam Nigeria. Data dikumpulkan menggunakan soal selidik dan 313 maklum balas dianalisis dengan statistik deskriptif dan pentakbiran untuk menguji hipotesis. Dapatan bagi hubungan langsung dalam pembinaan kajian ini menunjukkan terdapatnya hubungan positif antara keberkesanan, ketepatan masa laporan, aliran laporan audit dalaman dan sokongan pihak atasan dengan pencapaian organisasi. Walau bagaimanapun, terdapat hubungan negatif antara kebebasan dan saiz audit dalaman yang telah dikenal pasti. Hasil kajian kesan penyerdehanaan sokongan pihak atasan menunjukkan kebebasan, saiz dan keberkesanan audit dalaman menghasilkan hubungan yang positif dan signifikan dengan pencapaian organisasi. Sementara itu, hubungan negatif antara aliran laporan dan ketepatan masa laporan turut dikenal pasti. Sumbangan pratikal dan teori kajian ini menunjukkan bahawa teori pengawasan dan teori kebergantungan sumber adalah penting dalam menjelaskan kesan sokongan pihak atasan terhadap pencapaian organisasi. Hasil kajian juga memberi implikasi bahawa universiti awam Nigeria mampu untuk mencapai prestasi yang tinggi dengan inisiatif polisi baharu daripada agensi penguatkuasaan dan sokongan daripada pihak atasan untuk kebebasan, kecekapan dan jumlah saiz kakitangan yang sesuai untuk audit dalaman. Kajian ini juga menyumbang kepada literatur hubungan kualiti audit dalaman dan pencapaian organisasi dengan kesan penyerdehanaan sokongan pihak atasan dan amalan audit dalaman di Nigeria.

Kata Kunci: kualiti audit dalaman, sokongan pihak atasan, pencapaian organisasi, universiti awam Nigeria.

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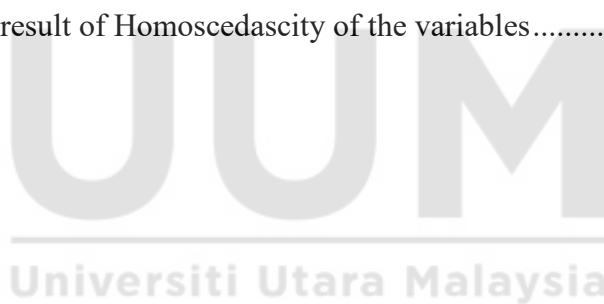
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LIST OF ABBREVIATIONS

IA	Internal Audit
IAF	Internal Audit Function
IAE	Internal Audit Effectiveness
IAQ	Internal Audit Quality
TMS	Top Management Support
NUC	National Universities Commission
SEC	Securities and Exchange Commission
IIA	Institute of Internal Auditors
SOX	Sarbane Oxley Act
CAE	Chief Audit Executive
ISPPA	International Standard for the Professional Practice of Internal Auditing
AC	Audit Committee
IAFS	Internal Audit Function Structure
IPPF	International Professional Practice Framework
IAC	Internal Audit Characteristics
ICAN	Institute of chartered Accountants of Nigeria
ANAN	Association of National Accountants of Nigeria
CIA	Certified Internal Auditor
CAN	Certified National Accountant
CPAS	Certified Public Accounting Standard
NFU	Nigerian Federal Universities
HIA	Head of Internal Audit



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CHAPTER 1: INTRODUCTION

1.1 Background of the study

Studies on internal audit quality (IAQ) have received considerable attention in literature over the years (Andrew & Chamber 2015). IAQ provides a strategic function and is an effective management instrument in ensuring internal control in almost any type of organization. It is considered an important element in improving the performance of both public and private sector organizations (Institute of Internal Auditors, 2012). Internal auditing is seen as an overall monitoring and evaluation function with responsibilities to the entire management for the assignment of effective and efficient control mechanisms (Kiabel, 2012). The Institute of Internal Auditors (IIA, 2002) defines internal auditing (IA) as “an independent, objective assurance, and consulting activity designed to add value and improve an organization’s operation. It helps an organization accomplish its objectives by bringing a systematic and disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance process”.

Therefore, IA is regarded as a function that requires experienced, knowledgeable and expertized personnel. It is also a function that requires a reasonable size of audit staff and an independence in carrying out the audit process. It is considered as the ability to communicate audit findings and recommendations through regular and acceptable reporting patterns (Enofe *et al*, 2013).

The Statement of Auditing Standard (SAS 65) explained IAQ characteristics as involving competence which are educational level, certification, and past experience;

objectivity comprises elements such as reporting relationship and effective communication and quality of work performance involving the adequacy of the audit programme. In another development, the IIA 2002 standards 1210 as cited by Hutchinson and Zain (2009), an internal auditor's proficiency is based on the internal auditor's acquisition of necessary knowledge and the competency elements required to conduct audit to ensure effectiveness. In this study, dimensions of IAQ comprising of IA competency, IA independence, IA size, IA reporting line, and timeliness of IA reports are to be considered.

IAQ has a significant role in maintaining and contributing to organizational performance (Tabandeh, 2016). The attributes of an independent IA, IA competence, and an effective reporting line to the audit committee play a significant role in overseeing the internal control and financial reporting process of an organization (Zaire, 2014). External auditors perform effectively with high quality IA which can improve and promote appropriate accounting and auditing standards. They ensure that the financial information are true, fair, and can serve the organization effectively, thus giving the organization a sense of confidence (Gita & Linda, 2017). Therefore, IAQ can play a great role in achieving organizational performance in both public and private organizations.

Since the study is concerned with Nigerian federal universities, it is important to look at their relevant structures and operations. Nigerian federal universities are established principally to impact positively on societal development. This can be achieved through their objectives of knowledge generation (research), knowledge dissemination (teaching), and knowledge application (community services). The law

that establishes the foundation for Nigerian federal universities makes provisions for their objectives, constitutions, functions for each constituent, and the manner of relationship between the various organs of the institution for effective and efficient performance (Ogunrunku, 2010). Universities in Nigeria are different from other Nigerian public sector organizations in terms of their purpose, structure and composition. They provide a structure that gives recognition to those arms of the organization that deals with the various functions of the university.

Thus, the structure provides for the Chancellor and Pro-Chancellor/Chairman of the university council. The council of the university is appointed by the federal government along with the external members of the council to provide oversight for the university's activities. The structure also provides for the provision of the top management of the university which consists of the Vice-Chancellor, who is the chief executive officer of the institution, the two deputies for Vice-Chancellor, who assists the Vice-Chancellor for academic and administrative functions, the Registrar, the university Librarian, and the Bursar as the chief financial officer of the institution. Other functional organs of the university are the Deans, Directors, and head of departments (Inua & Muduabum, 2014).

The emerging development of Nigerian federal universities and the huge amount of money being expended for university education, the Nigerian government is now concerned over the efficiency and effectiveness regarding the use of public funds (Unegbu & Kida, 2011). To quell these concerns, the government established agencies tasked with the role of an internal control mechanism to look into the

financial and non-financial operations of these universities in order to realize the value for the money expended on various governmental programmes and activities.

This brought about the existence of an IA department in those institutions to assist in reviewing organizational processes and control procedures. They can also provide measurable assurance that public funds are being utilized in the most efficient and effective manner (Achua & Ogunjoboun 2014). To support government programmes and activities, the regulatory agencies and other professional groups such as the Institute of Internal Auditors (IIA), International Standard for the Professional Practice of Internal Audit (ISPPA), Statement of Auditing Standard (SAS), Institute of Chartered Accountants of Nigeria (ICAN), Association of National Accountants of Nigeria (ANAN), and many other professional groups establish ethical standards to enhance IA practices towards the realization of organizational performance.

The public sector managers are required to pay more attention to the improvement of public organizations (Unegbu & Kida, 2011). Today, the Nigerian government controls the largest business transactions which, by the nature of its expenditure through its ministries and agencies, have to improve significantly in their financial and non-financial activities (Enofe, Mgbame & Ethiorobo, 2013). Therefore, the need to have a high quality IA function for the realization of organizational objectives cannot be overemphasized. This becomes more important in a situation where public sector managers find themselves operating at a complex and challenging environment due to the current economic crises (Unegbu & Kida, 2011).

Under this premise, IAQ, with the dimensions of IA competency, IA independence, IA size, IA reporting line, and timeliness of IA report, can play a unique and important role in organizational performance (Inua & Muduabum, 2014). IA's presence in organizations is expected to take a leading role in helping the organization to manage risks and control processes (IIA, 2000). This can be achieved through appropriate support from the top management of that organization. Top management support is considered one of the most crucial factors which consistently influences the IAQ towards improving organizational performance (Cohen & Sayag, 2010). In addition to the need for internal auditors to have access to the audit committee of the council, the IA competency, resourcing IA, IA work plan, and effective relationship in terms of reporting and accessibility to records are all attributes of top management support (Alzeban & Sawan, 2013; Mahzan & Hassan, 2015).

The emerging functions of IA today are not only to tackle ineffectiveness in the management processes but to initiate and develop new strategies to assist the organization in achieving the desired objectives (Tabandeh, 2016). Modern internal auditing is increasing its scope and role to improve the value of the organization they serve (Achua & Ogunjoboun, 2014). Internal auditing, by its nature, is a vital factor for public sector operators that guides them towards achieving the objectives of the organization. According to Inua and Muduabum (2014), internal auditing assists the board/council with independent advisory and consulting services in achieving the organizations' objectives and ensures that the organizations are operating efficiently, economically, and ethically. IA functions today accept a broader responsibility towards organizational assurance and consulting services (IIA, 2012). This shows

that IAQ can effectively contribute to organizational performance in an expanded decision-making process (Achua & Ogunjoboun, 2014).

Government expectations and effort to have high level of transparency and accountability must show concern for the use of public funds (Unegbu& Kida, 2011). Public organizations require a lot of competent and professional human resources to manage risks which falls on the role of quality IA comes. This is because it is considered as an important and indispensable organ that gives internal assurance to any organization (Enofe, *et al*, 2013). A high quality IA engages in activities involving monitoring, evaluation, assurance and control, which are designed to give confidence to the board/council that management is meeting the objectives of the organization (Inua & Muduabum, 2014). The level at which public organizations in Nigeria functions and what is expected from IA means that it is important, under this context, to look into the issue of IAQ in Nigerian federal universities and how it will contribute to the performance of those institutions, as Achua and Ogunjoboun (2014) stated.

IA is an indispensable management tool considering its strategic position in organizational structure (Ejoh & Ejom, 2014). It is seen as a large and significant aspect for influencing affective organizational performance. IAQ is a leading profession for ensuring the effectiveness and efficiency of any organization (Charles, 2013). It is not the establishment of an IA department that matters, rather getting a high audit quality (Ahmad, 2015). Therefore, with a high level of integrity, honesty and support from top management, IA can add value to the management and

governing board/council for the realization of organizational objectives through independent advice (Charles, 2013).

However, since the implementation of strategies and establishment of agencies to look into the control of public funds, Nigerian federal universities face a lot of challenges not only due to underfunding (Academic Staff Union of Nigerian Universities, 2013) but also the presence of poor internal control systems. This results in the mismanagement and loss of public funds as well as a consistent attitude of delaying IA reports which render most of the audit reports useless. A non-response to IA reports in time by the management and, in effectiveness, the entire financial operational system is a great threat to organizational efficiency (Achua & Ogunjoboun, 2014). For IA to achieve its relevance in an organization, it may require a paradigm shift from the traditional focus on financial and non-financial control and compliance audits to also include its involvement in risk management expectations within organization for the realization of fundamental value proposition (IIA, 2012).

This study, therefore, intends to examine the relationship of IAQ with the dimensions of IA competency, IA independence, IA size, IA reporting line, and timeliness of IA reporting and organizational performance as the dependent variables with a moderating variable of top management support. The objective is to determine how these relationships can contribute to the performance of Nigerian federal universities.

Following this background of the study, the next section is the problem statement.

1.2 Problem Statement

Despite the fact that IAQ has received considerable attention all over the world due to its importance and contributions to organizational performance, especially in oversight activities, improvement in internal control system, monitoring environment, internal assurance and its potentiality in mitigating operational risk (Ahmad, 2015; Andrew & Chamber 2015; Al-Matari, *et al*, 2014; Endaya & Hanefah, 2013; Faruk & Hassan, 2014; Alzeban & Gwilliams, 2014), yet many public sector organizations in developing nations like Nigeria are yet to value the concept of IA functions (Dominic & Nonna, 2011; Inua & Muduabum, 2014). IAQ is considered one of the key factors to achieve superior organizational performance (Ahmad, 2015).

In Nigerian federal universities, IA departments were established to monitor and evaluate the overall financial and non-financial activities for effective performances. However, poor internal control and ineffectiveness in the financial operations are still prevalent. These insignificant contributions of IA to the performance of Nigerian federal universities is of great concern not only to the Government, but also to other stakeholders (Unegbu & Kida, 2011). Achua & Ogunjoboun (2014) indicated that there are several challenges which cripple the performance of Nigerian federal universities. These include, among others, weak IA which results to the mismanagement of financial and non-financial resources as well as the ineffectiveness in entire financial operations that are meant to facilitate the effective performance of Nigerian federal universities. Another major problem is the inability of IA to meet the stakeholders' expectations in reporting finance-related matters appropriately (Sahara Reporters, 2016; Daily Trust, 2017).

Studies have been conducted in relation to IAQ dimensions consisting of IA competency, IA independence, IA size, IA reporting line, and timeliness of IA report and organizational performance (Rusmin & John, 2017; Marius *et al*, 2017; Gita & Linda, 2017; Kofi & Eric, 2017; Roussy & Brivot, 2017; Brant, *et al.*, 2016; Tabandeh, 2016; Endaya & Hanefah, 2016; Nopmanee & Ling, 2015; Ahmad, 2015; Andrew & Chamber 2015; Al-Matari, Al-Swidi & Fadzil, 2014; Achua & Ogunjoboun, 2014; Faruk & Hassan, 2014; Ziace, 2014; Baharud-din, Shokiyah and Ibrahim, 2014; Alzeban & Gwilliams, 2014; Badara & Saidin, 2014; Chen, *et al*, 2013; Mukattash, 2011; Unegbu & Kida, 2011; Cohen & Sayag, 2010). These studies have arrived to different conclusions on the relationships between IAQ dimensions and organizational performance.

Studies that examined these relationships and reported positive and significant relationships between the constructs of the study includes Gita & Linda, 2017; Endaya & Hanefah, 2016; Roussy & Brivot, 2016; Tabandeh, 2016; Ahmad, 2015; Al-Matari, Al-Swidi & Fadzil, 2014; Achua & Ogunjoboun, 2014; Faruk & Hassan, 2014; Ziace, 2014; Baharud-din, Shokiyah and Ibrahim, 2014; Alzeban & Gwilliams, 2014; Badara & Saidin, 2014; Chen, *et al*, 2013; Mukattash, 2011; Cohen & Sayag, 2010.

However, other studies have different findings which indicated insignificant and negative relationships between IAQ dimensions and organizational performance (Rusmin & John, 2017; Kofi & Eric, 2017; Ojong and Ekponta, 2014; Enofe, *et al*, 2013; Fagbemi *et al*, 2013; Adeyemi *et al*, 2012; Kaibel, 2012; Unegbu & Kida, 2011; Dominic & Nonna, 2011).

These inconsistencies and mixed findings in the previous studies have led to a demand for the presence of a moderator (Badara & Saidin, 2014) to fill the literature gap which other studies, to the best knowledge of the researcher, have not done in explaining the relationship between IAQ dimensions and organizational performance. This is also in line with a suggestion by Baron and Kenney (1986), Sekaran (2003), and Cohen and Sayag (2010) which stated that where inconsistencies were found between the different results, a moderator can be introduced. A moderator functions as a third variable which partitions a focal independent variable into subgroups that establishes its domain of maximum effectiveness with regards to a given dependent variable (Baron & Kenny, 1986). Sekaran (2003) also reaffirmed that a moderator necessarily has significant effect on the independent – dependent variable relationship and its presence modifies the original relationship between the predicting and criterion variables for maximum effectiveness.

Top management support is employed as the moderating variable of the study after having considered its significant influence in determining the success of IAQ in achieving organizational performance. Top management's attitude towards the activities of IA plays a significant role on organizational performance (Alzeban & Gwilliams, 2014). Management support is linked to the provision of efficient resources to IA in the area of staff training, recruitment, and professional development to improve on their competency, effective reporting relationship, and having an independent IA department (Mahzan & Hassan, 2015).

In another related concern, most of these studies were carried out in advanced and western countries and mostly on private firms with little or insignificant studies done in a developing country like Nigeria. Studies in IAQ and organizational performance in the public sector have not been carried out extensively in developing countries (Al-Twaijry *et al*, 2003; Mihret & Yasmaw, 2007; Ahmad, *et al* 2009) like Nigeria. Based on the available literature consulted, the researcher had not come across such studies under this model conducted in Nigeria and, even if there are any, they are not documented.

Even though there have been many studies that attempted to establish this relationship, there is a need to have more a comprehensive study with a sound approach that will look into how IAQ dimensions can contribute to the performance of Nigerian federal universities with a moderating variable of top management support and how it can add value to the existing literature. On the basis of the problems stated, the following research questions are proposed.

1.3 Research Questions

The major question which the study attempts to answer is: “is there any relationship between IAQ, with the dimension of IA competency, IA independence, IA size, IA reporting line and timeliness of IA report and the performance of Nigerian federal universities (NFU)?”. In line with this major question, the following specific questions are raised in order to guide the study:

1. Is there any significant relationship between IA competency and performance of Nigerian federal universities?

2. Is there any significant relationship between IA independence and performance of Nigerian federal universities?
3. Is there any significant relationship between IA size and performance of Nigerian federal universities?
4. Is there any significant relationship between IA reporting line and performance of Nigerian federal universities?
5. Is there any significant relationship between timeliness of IA report and performance of Nigerian federal universities?
6. Is there any significant relationship between top management support and performance of Nigerian federal universities?
7. Does top management support moderate the relationship between IA competence, IA independence, IA size, IA reporting line, and timeliness of IA report and performance of Nigerian universities?

1.4 Research Objectives

Based on the above research questions, the goal of this study is to examine the relationship between IAQ with the dimensions of IA competence, IA independence, IA size, IA reporting line, and timeliness of IA report and performance of Nigerian federal universities with a moderating effect from top management support (TMS). To achieve this goal, the following specific objectives were developed to answer the research questions:

1. To examine the relationship between IA competency and performance of Nigerian federal universities.
2. To examine the relationship between IA independence and performance of Nigerian federal universities.

3. To examine the relationship between IA size and performance of Nigerian federal universities
4. To examine the relationship between IA reporting line and performance of Nigerian federal universities.
5. To examine the relationship between timeliness of IA report and performance of Nigerian federal universities.
6. To examine the relationship between top management support and performance of Nigerian federal universities.
7. To determine whether top management support moderates the relationship between IA competencies, IA independence, internal IA size, IA reporting line, and timeliness of IA report and performance of Nigerian universities?

1.5 Scope of Research

Having considered the research objectives, this study covers forty (40) federal universities in Nigeria which makes up the population of the study (NUC, 2014). Senior internal auditors from Nigerian federal universities whose salary scale ranges in the Nigerian public sector consolidated salary structure from Grade level 07 to Grade level 15 are to be considered. This salary structure, now referred to as consolidated tertiary institution salary structure (CONTISS), is applicable to Nigerian tertiary institutions. Internal auditors at that level will be selected from each federal university to participate in this study in order to have a wider scope. The unit of analysis of the study is the individual internal auditor, who is considered as a respondent to the questions designed from the constructs of the study. Internal auditors in this study are the people or employees entrusted with providing independent and objective evaluations of the organizations' financial and operational

business activities, including its corporate governance. Internal auditors in this study are also the people who evaluate the operational efficiencies of an organization and usually reports to the highest levels of management on issues affecting the organization.

The study will examine the extent to which IAQ dimensions consisting of IA competency, IA independence, IA size, IA reporting line, and timeliness of IA report would contribute to the performance of the Nigerian federal universities. Organizational performance is the dependent variable which is referred to in this study as the accomplishment of a given task measured against the actual known standards of accuracy and completeness. It is deemed as the fulfilment of an obligation. It is the process in which an organization utilizes its scarce resources efficiently, effectively, and economically to produce output that is consistent with Nigerian federal universities' mission and vision. At the same time, top management support is the moderating variable of the study. Top management of the Nigerian federal universities in this study consists of the Vice-Chancellor, who is the chief executive officer of the institution, the two deputies of the Vice-Chancellor, who assist the Vice-Chancellor for academic and administrative functions, the Registrar, the university Librarian, and the Bursar as the chief financial officer of the institution. Other functional organs of the university consist of, among others, the Deans, Directors, and head of departments. Therefore, the study examines the contributions of IAQ to the performance of Nigerian federal universities with a moderating variable of top management support.

1.6 Significance of the Research

This research is timely and very essential during these times of scarce public resources in Nigeria. Knowledge about the Nigerian federal universities' performance and efficiency will guide the managers of those institutions to recognize the financial and non-financial short-comings of their institutions. Federal Republic of Nigeria regulatory agencies, professional bodies, and other stakeholders, on the other hand, can use the research in policy formulation and review of the existing rules and regulations (Inua & Maduabum, 2014).

In fact, internal auditing is important in public universities as it is in the business world. The need to appraise the relationship between IAQ and organizational performance in Nigerian federal universities for effective delivery of organizational performance is quite imperative. Despite all the intervention by regulatory agencies and professional groups for high quality IA in public institutions, the challenges for determining effective internal control, credible financial and non-financial reporting, and indifference towards response to audit reports are still prevalent. These and many other factors necessitate in-depth research on the dimensions of IAQ comprised of IA competency, IA independence, IA size, IA reporting line, and timeliness of IA report considering their importance and relevance to organizational performance (Demaki, 2011).

Practical significance. The choice of using Nigerian federal universities in this research is due to the fact that federal universities in Nigeria share a common source of funding, structure, and regulatory agencies which will make the study more realistic. They are the apex learning institutions in Nigeria and serve as a model to

other higher learning institutions. Studies on Nigerian federal universities would create independent and sustainable resources, structure, and support that will facilitate the efficiency and effectiveness of Nigerian federal universities. Their effectiveness and efficiency translates into a model which serves as an example for other institutions to emulate. The study is considered to be important in reshaping the stakeholders' perceptions so that they can view IA as adding value, especially in areas of financial and non-financial control, assurance, compliance, prompt reporting of audit findings, risk management, and consulting services. The findings of this study, therefore, is expected to expand the knowledge on the previous literature as well as bring recognition and awareness of IA practices and its impact on the performance of Nigerian federal universities.

Theoretical significance. This study will improve the performance of Nigerian federal universities by incorporating a moderating variable (top management support) in measuring the relationship between the IAQ and university performance.

Methodology significance. This study will contribute to the performance of Nigerian federal universities through the personal distribution of the questionnaire to the respondents (internal auditors in senior audit cadres) which, to the best knowledge of the study, has never been done or investigated in Nigerian universities by previous researchers.

1.7 Summary of the Chapter

In this chapter, the background of the study was discussed. The concept and the attributes of IAQ were discussed. The constructs of the study consisting the

independent variables, dependent variable, and the moderating variable were discussed along with the rationale for choosing the variables of the study. The problem statement of the study indicating both practical and theoretical problems were discussed and research questions and objectives were developed to guide the study. The scope of the research that describes the population of the study, expected respondents, and unit analysis were examined in order to give a direction for the research. The significance of the study, particularly the practical, theoretical, and methodological significance, was examined.



CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The previous chapter of this study discussed the background and motivation of the study, problem statement, research questions and research objectives, scope of the research, as well as the significance and contributions of the research. In this chapter, it is concerned with the conceptualizations of relevant aspects of the study and review of relevant literature on IAQ. The IAQ has the following dimensions; IA competency, IA independence, IA size, IA reporting line, and timeliness of IA report. Other constructs of the study are organizational performance as a dependent variable and top management support as the moderating variable. The chapter attempts to, firstly, conceptualize the main elements of the study such as the general overview of IA, IA functions, IAQ, and its impact on Nigerian federal universities and organizational performance. The study will examine relevant literature that are considered useful in the formulation of the research hypotheses. The underpinning theory will also be discussed. The study opens up possible areas for other researches not covered by this study.

2.2 Concept of Organizational Performance

Great pressure has been placed on public organizations to increase the quality of their services as well as the efficiency and effectiveness in the utilization of their scarce resources. As one type of public organization, Nigerian federal universities are experiencing a lot of changes and reforms for effective management and reaching the stakeholders' expectations. Nigerian federal universities wanted to be self-

sufficient and to be accountable to the stakeholders. The increasing call for accountability and transparency necessitates the presence of internal control mechanisms (Rusmin & John, 2017). The Nigerian government wanted universities' resources to be properly safe guarded and utilized efficiently, effectively, and economically (Ogunrunku, 2010). Therefore, both the government and the university managers need to implement more internal control and performance measures for the effective utilization of the scarce resources.

Organizational performance is considered to be among the critical factors and a very useful variable in management and accounting research (Richard, *et al*, 2008). It has become an indicator of effective performance of an organization (Gavrea, *et al*, 2011). The concept of organizational performance is used commonly among researches and academic literature, however, its definition is often difficult because of many associated meanings (Gavrea, *et al*, 2011). The meaning given to it with respect to the private sector may be different with that of the public sector. As a result of this, there is no universally accepted definition. For instance, in the 1950s, Geargopoulos and Tannenbaum (1957) stated that organizational performance is viewed as a social system that fulfilled their objectives effectively and can be evaluated through the mechanism of human work performance and the underlining structure of the organization. During the 1960s up to the 1970s, when organizations started to explore new ideas in performance evaluation, Geargopoulos and Tannenbaum (1957) defined organizational performance as the process of utilizing its environment for accessing and managing available resources.

In the 1980s through the 1990s, Seashore and Yachtsman (1967) further elaborated that the identification of organizational objectives were realized in a more complex manner than the initial perceptions. Organizational performance comprises the actual output or result of organizational operations as measured against the intended output of the organization (Hamann *et al.*, 2013). Kaplan and Norton (1996) considered the variables of a financial perspective and stakeholder's perspective and found the internal processes and learning and growth as the determinant factors for determining and measuring organizational performance. What matters most to organizational stakeholders is the performance of their organization.

In earlier literatures, Kaplan and Norton (1996) explained that organizational performances are based on the clear understanding of the organizational mission and vision and the strategic goals. They further explained that effectiveness, efficiency, and economy are the basic three parameters that are used to measure organizational performance (Kaplan & Norton, 1996). Furthermore, Lebas and Eucken (2002); Kaplan and Norton (1996) provided a definition for performance, among which is commonly used in literature, as an indicator of reliable information on financial and non-financial operations. Buregeya (2007) stated that organizational performance is the ability for an organization to be efficient in producing output that meets the users' and stakeholders' expectations. In other words, it is the process through which organization utilizes its scarce resources efficiently, effectively, and economically to produce output that is consistent with the organization's mission and vision.

March and Sutton (1997) earlier argued that organizations are instruments of purpose. They were regarded as coordinated activities through intentions and goals. Therefore, pointing to the purpose of organizations and evaluating comparative organizational achievements or failure in fulfilling those purposes is quite conspicuous. Part of the conventional discourse from this statement, it can be deduced that private firms normally measure their performance in terms of profit and return on investment (ROI). On the other hand, for public organizations like Universities, performance is compared through the use of research productivity, academic programmes, student intake, and ranking by popular agency or by a university regulating body. For example, the Nigerian federal universities are assessed and ranked by the National Universities Commission (NUC) and other professional groups. Therefore, performance is generally measured through indicators in seven interrelated areas of organizational performance which are linked to specific elements of effectiveness, productivity, quality in leadership, customer and stakeholder satisfaction, efficiency, innovation, and financial durability (Hamann *et al.*, 2013).

Therefore, explaining variations in performance or effectiveness is a very complex process in literature (Lockey & Lathmar, 1990). Previously, it manifested distinctively in the management literature, but now extends to wide researches that seek to understand competitive arrangements that emphasize the adaptation of organizations to feedback from the environment. Organizations have an important role in our lives. A successful organization represents a key ingredient for national development. They have to be assessed and managed effectively because they are essential for a developing economy especially in the current economic crises.

Knowing the determinants such as IAQ and utilizing them for the effectiveness of an organization is very crucial. Internal auditors have a great role to play and contribute towards an organization through its understanding and knowledge of the organizational risk elements and control processes (Buregeya, 2007). Management realizes that an organization achieves its desired objectives or goals when there is effectiveness, efficiency, and relevance to the mission and vision of the organization.

Performance in the public sector relates to the ability of an organization to achieve a given set of goals and provide quality services to citizens. Performance in the public sector can be financial or non-financial and based on the administration's focus at any point in time (Hamann *et al.*, 2013). Measuring performance in the public sector is complex as there are many stakeholders to be satisfied by limited resources. However, the important issue is how well have limited resources been managed to ensure efficiency, effectiveness, and quality of services (Hamann, *et al.*, 2013).

The need to focus on the performance of Nigerian federal universities constitutes the stimulant of this study. This is in line with the fact that Nigerian federal universities are one of the major users of the nation's resources. As this study attempts to determine the extent at which IAQ dimensions would contribute to the performance of Nigeria federal universities, it is important to consider the performance parameters of these institutions and examine the value adding of IAQ.

There is apparently a great concern for the lack of positive relationship between what is invested in Nigerian federal universities and the return on such investment (Abdukareem & Oyeniran, 2011). The input and output measurements in Nigerian

federal universities are often difficult to be evaluated, yet the government continues to invest a huge amount of resources in running the institutions. This research which is aimed towards the contribution of IA to the performance of these institutions is timely and very essential in these times of scarce public resources. In addition, knowledge on the Nigerian federal universities' performance efficiency will guide the managers of those institutions to recognize the financial and non-financial shortcomings. The federal government, being the sole funder, can use the research in managing its scarce resources effectively through its policy formulation and review of the existing rules and regulations (Inua & Maduabum, 2014).

IAQ perfects and completes its functions and add value based on an understanding of how contemporary organizations function (Tabandeh, 2016). The roles of IA is not only to detect insufficient processes and procedures but also to suggest ways to improve organizational practices. This can help the organizations to achieve the desired objectives especially in risk management (Achua & Ogunjoboun, 2014).

Several attempts were made to evaluate or measure the performance of Nigerian federal universities using different models such as performance efficiency measures, data envelopment techniques, and balance score cards (Abdukareem & Oyeniran, 2011). However, for the purpose of this study, a balanced score card developed by Kaplan and Norton (1996) is applied to measure the indicators of organizational performance in the research instrument. Since this study is on the Nigerian federal universities, it is important to review the impact of IAQ in Nigerian federal universities and also to review some existing literature in order to determine the level of its contribution to the performance of those universities.

2.3 General over view of Internal Auditing

Internal auditing is an important function and is considered an effective instrument of management in almost all organizations (IIA, 2012). It is considered an important element of organization in both public and private sectors. Internal auditing is seen as an overall monitoring and evaluation function with responsibilities to the entire management for the assignment of effective and efficient control mechanisms (Kiabel, 2012). According to Melanie and Marion (2017), the goal of internal auditing is to contribute to organizations to aid in the execution of their responsibilities. Kiabel (2012) put IAQ as a contributing factor for organizations' financial and non-financial control mechanisms. A high quality IA is recognized as a means of assisting the board and other management in an organization to focus on its obligation to ensure proper and efficient internal control is in place. Ahmad *et al* (2009); Abdullah, *et al*, (2012); Badara and Saidan (2014); Al – Matari, *et al* (2014); Alzeban and Gwilliams (2014); George *et al*, (2016) and Endaya and Hanefah (2013) indicate that internal auditing provides assistance to management and the entire institution in realizing its goals.

The Institute of Internal Auditors (IIA, 2002) gave the definition of IA as “an independent, objective assurance and consulting activity designed to add value and improve an organization’s operation. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance process”.

The above definition shows how IA’s scope becomes broader within an organization. This scope involves risk management and management control on the effectiveness

of operations, reliability of financial and management reporting, and compliance with established laws and regulations. IA may be involved in the examination and investigation of fraud cases to identify potential fraudulent acts and many responsibilities aimed to improve organizational performance (Achua & Ogunjoboun, 2014).

IA has become an important management technique in contributing towards quality service deliverance and achieving effective and efficient governance processes (Cohen & Sayag, 2010; Mihret, *et al*, 2010). The emphasis on IA as an important element manifested after a series of corporate collapse of giant American corporate organizations such as Enron, Parmalat, WorldCom, and many others. The series of reported cases of fraud and embezzlement of public funds that crippled economic activities of many countries around the world are part of the demand for IA (Ahmad, 2015) which Nigeria is inclusive of. The role of IA has undergone several transformation processes due to challenges in current organizational expectations. These expectations have increased to the extent where attention is on value-adding and improvement of governance processes. The transformation process resulted in putting focus on IAQ (Gita & Linda, 2017). This validates the concept of IAQ in influencing organizational performance.

Therefore, considering the role of IA in both public and private institutions for their corporate governance, there are extensive researches in broader areas of the profession. These roles were highlighted by the Institute of Internal Auditors (IIA) Practice Advisory, 2130 - 1 on the role of IA in shaping the values and ethical culture of an organization which emphasized that IA should take an active role in

supporting organizational objectives (IIA, 2004). Although Davison *et al* (2005) emphasized that it is not the establishment of an IA function that matters, rather the significant aspect is ensuring its quality. Based on this argument, it is important and even necessary to examine the relationship between IAQ and organizational performance in an attempt to justify the extent at which IAQ contributes to organizational performance. The study, therefore, will look into IA functions and see how it is imperative to have in-depth study of IA.

2.4 IA Function

Over the years, it has been observed that there is rising concern on the studies of IA functions (Arena & Azzone, 2007). Various studies have made an effort towards the studies of IA functions considering the role it plays in organizational performance. Some of these roles include, among others, oversight activities, improvement in internal control mechanisms, monitoring environment, and its potentiality in mitigating operational risks (Al-Matari, *et al*, 2014; Endaya & Hanefah, 2013; Faruk & Hassan, 2014; Alzeban & Gwilliams, 2014; Kofi & Eric, 2017).

Many of these studies came up as a result of some corporate failures, scandals, and global economic crises (Dominic & Nonna, 2011). Significant attention has been received from regulators, public agencies, and other professional groups to look into the issue of disclosing corporate reports. This brought about the need to consider internal assurance, including internal control and risk management (Domini & Nonna, 2011). Regarding the unique contribution of IA functions in both private and public sectors, several studies (Grambling & Hermanson, 2006; Sarens and De Beelde, 2006; Cohen Sayag, 2010; Domini & Nonna, 2011; Kofi & Eric, 2017) call

for further research in IA function. The need for further study in IA function was also supported by governance reports (NYSE, SarbanesOxley Act, 2002) and previous studies (Goodwin J, 2004; Dominic and Nonna, 2011) as a mechanism to improve internal governance process. Al-Matari, Al-Swidi and Fadzil (2014) stated that there are many factors of IA functions which include internal control systems, assessing the strategic plans of the organization, provisions for IA with adequate authority, staff commitment to organizational policies and procedures, and safe guarding the organizational funds and assets against manipulation and fraud.

The definition of IA, as stated earlier, moves IA function from compliance to value-adding and brings the profession to a heightened identity. Mihret *et al.* (2010); Lenz and Hahn (2015) indicated that the new definition of IA creates opportunities for IA to engage in consulting and risk management activities to the governing board or council.

In a related study, Goodwin (2004) emphasized that both the old and new definitions of internal IA should not be ignored, especially the traditional role of IA function. The study suggested for future researches since the research was basically limited to a particular segment – Ohio, USA and on a private sector organization. The need to investigate such responses from both a public sector organization and in developing countries would be important in justifying the paradigm shift from the traditional focus of IA function to the newly-defined IA function. However, the definition of IA function makes IA services look better, be fully utilized, and their recommendations will be respected. The definition further signifies that IA can provide function a wider range of services to stakeholders of the organization (Dominic & Nonna, 2011).

Al-Matari *et al.* (2014), in their study on the effect of IA firm performance: A proposed research framework, indicated that, for successful determination and application of IA function, it must contain the key dimensions of IAQ such as competency, objectivity, and independence of IA. The findings suggests for more expansion and in-depth studies on the role of IAQ. The findings further indicated that the performance measurement mechanism of IA had not yet been fully operational. Although the method facilitates an in-depth examination and evaluation of IA function, other models such as balance score cards and input – process – output could be used to enhance the performance measures. Their study suggested for further research on different regulatory contexts like on public sector organization because of differences in regulatory requirements.

In another related development, many studies are with the opinion that the IA function may not necessarily be effective (Al-Twaijry *et al.*, 2003; Mihret *et al.*, 2010; Mihret & Yismaw, 2007). This is in particular to developing countries like the Nigerian public sector where many organizations are yet to value the concepts and practices of IA as done in developed nations (Mihret,*et al.*, 2010). The IA practice in the Nigerian public sector is still confined to traditional roles and generally restricted to financial matters with less emphasis on performance risk management. This is why it is quite imperative to discuss IAQ and examine how it can contribute to organizational performance as one of the main constructs of the study.

2.5 Internal Audit Quality (IAQ)

There are many dimensions constituting IAQ which other scholars may consider. In this study, IA competency, IA independence, IA size, IA reporting line, and

timeliness of IA report were chosen due to their relevance in Nigerian public institutions, particularly in Nigerian federal universities. The researcher adapted these variables from previous studies conducted by Roussy & Brivot, 2017; Alzeban & Gwilliams (2014); Badara & Saidin (2014); Mihret (2010); Kiabel (2012); Unegbu & Kida (2011) and Ejom & Ejoh (2014). A variable of top management support was also adapted from a study conducted by Cohen & Sayag (2010) on the effectiveness of IA in Israel's public sector organizations. Similarly, Nigerian federal universities were considered in this study because of their common funding, structure, and operations, leaving State and privately owned universities whose funding, structure, operations, and management differ.

Research on IAQ has received considerable attention in literature (Chen *et al*, 2005;Gita & Linda, 2017). In this research, IAQ is characterized by IA competency, IA independence, IA size, IA reporting line, and timeliness of IA report. The ability to communicate audit reports and other findings and recommendations in time and, at the same time, elicit prompt response from decision makers is quite important in achieving organizational performance (Enofe *et al*, 2013). Therefore, IA is a function of highly experienced, knowledgeable, and expertized staff with a reasonable size of audit staff. Independence and objectivity in the audit process and the ability to communicate audit findings and recommendations through the regular and acceptable reporting patterns are other attributes (Lawrence, *et al*, 2016).

The Statement of Auditing Standard (SAS 65) explained IAQ characteristics as involving (1) competence which are educational level, certification, and past experience; (2) objectivity which comprises elements such as reporting relationship

and effective communication; and (3) quality of work performance involving the adequacy of audit programmes. In another development, the IIA, 2002 standards 1210 as cited by Hutchinson and Zain (2009) on internal auditor's proficiency indicated that internal auditors acquire the necessary knowledge and competency elements required to conduct audit to ensure effectiveness. IAQ plays a significant role in maintaining and contributing to organizational performance under the attribute of an independent IA, IA competence, and effective reporting line (Gita & Linda, 2017). The significant role is carried by audit committees who are entrusted primarily to oversee the internal control and financial reporting process of the organization (Lawrence, *et al*, 2016). External auditors perform effectively with high quality IA, thus giving the organization a sense of confidence (Zaire 2014).

The Public Company Accounting oversight Board (PCAOB) stated that many factors contribute or directly influence IAQ. Among the prominent ones are IA competency which consists of the experience, knowledge, skills, and proficiency of internal auditors, and the rigor of the audit methodology developed under the Audit Quality Framework (PCAOB, 2013). The insincerity in financial reporting raises serious concern not only in USA, Italy, and New Zealand but also in Nigeria where the world witnessed the celebrated collapse of giant companies such as WorldCom, Enron (USA), Parmalat (Italy), Nationwide finance (New Zealand), Cadbury, Afribank plc, and Intercontinental Bank plc (Nigeria) (Demakis, 2011; Norwani *et al*, 2011; Lianne, 2011). Countries around the world have set out codes of best practice as guidelines to address such mischievous acts like the Sarbanes Oxley Act (SOX) in USA, Cadbury report in Nigeria, Dev report in Canada, Kings Report in

South Africa and many others with the aim of improving the corporate governance (Bhagat & Bolton, 2009; Unegbu & Kida, 2011).

With regards to regulatory agencies, the challenges for determining credible financial and non-financial reporting in both private and public sectors are still prevalent (Unegbu & Kida, 2011). These and many other factors necessitate having in-depth research on elements affecting IAQ considering its importance and relevance in organizational performance (Demakis, 2011). This effort is not only limited to private organizations but also in public sectors where the prime motivation is generally directed to social services instead of profit. Therefore, this study intends to determine the relationship of IAQ and organizational performance in order to find out the extent to which they contribute towards the effectiveness of public organizations. Having discussed IAQ, the study will now consider the impact of IAQ on the performance of Nigerian federal universities as the main focus of the study.

2.6 Impact of IAQ in Nigerian Federal Universities.

Management of Nigerian federal universities focus their attention strategically on factors that could improve their performance and competitiveness in meeting their mission and vision in teaching, research, and community services like their counterparts around the world (Inua & Okafor, 2015). Keeping in line with this, the study intends to focus on how IAQ could enhance the performance efficiency of Nigerian federal universities. Nigerian public institutions are facing enormous challenges which causes them great difficulty in achieving their objectives. These challenges are not only limited to funding from federal government and misconceptions of IA function by the top management, but also the ability to utilize

the limited and scarce resources in running the universities to meet the yearning and aspiring Nigeria community (Adeyemi, 2011).

Many studies attempted to examine the effectiveness and productivity of Nigerian federal universities (Kempkes and Pohl, 20010). Looking at performance of federal universities in Nigeria, an indirect assessment of public funding management was offered since they are among the major users of the scarce resources of the nation. Therefore, it is essential to consider the utilization of the limited resources (Inua & Muduabum, 2014).

Although the practice of internal auditing is more glaring in private sectors than in public sector, however, it is now receiving more attention from researchers due to its acclaimed contribution toward public sector performance (Enofe *et al*, 2013; Unegbu & Kida, 2011 and Bayenga, 2011). This certainly brings about the view that IAQ is an effective investment and assurance in the public sector. It is an important element to the entire organizational structure in all Nigerian universities. It is equally an important process in the governance and arrangements for Nigerian federal universities in providing assurance on control to the Governing Council and the Vice-Chancellor. (Achua & Alabar, 2014). In recent years, there are remarkable improvements in the management of the scarce resources in Nigerian federal universities, due to little involvement of IA in key risk areas of the institutions. However, for IA to achieve its mission, it has to be properly structured in such a way that other IA functions facilitate the development for effective policy formulation, operational procedures, and processes (Achua & Alabar, 2014).

Nigerian federal universities should appreciate the value of internal auditing and not to consider internal auditors as merely tolerated for compliance to the laws that establishes the IA (Achua & Alabar, 2014). This apparently translates to a lack of commitment from university regulators and management which is evidenced by the fact that only a few of the Nigerian federal universities have comprehensive IA charters which clearly define the authority and structural position of IA in that organization (Inua & Okafor, 2015).

This bleak future facing IA in Nigerian federal universities and the negative perception on internal auditor's contribution to the organization (Kramer, 2011) is of great concern not only to the IA profession but also to the stakeholders. Much needs to be done in examining the dimensions of IAQ through the mechanism of top management support in Nigerian federal universities to ensure the stakeholders are getting value out of the investment made. The study, therefore, attempts to examine IAQ in relation to organizational performance from the existing literature.

2.7 IAQ and Organizational Performance

IAQ is one of the most critical part of an effective IA process (IIA, 2002) for effective organizational performance. The International Organization for Standardization (ISO) established a standard for IA practices which is comprised of the implementation of quality assurance and improvement programme for IA operations globally. It is this technique required by ISO 9001 standards for the purpose of conducting IAQ to examine the compliance requirement and report non-conformity identified in the audit process (ISO 9001, 2000). In performing IAQ, both the system of IA effectiveness and efficiency can be monitored for conformity

of internally recognized standards and develop a process of continued quality improvement. Not only should the outputs of the audit be measured against the planned objectives, but the audit process should include work plan, reporting, competency, and other factors that can complement the IAQ for achieving organizational performance (Mihret, *et al*, 2010).

Several studies (Roussy & Brivot, 2017; Al-Matari, *et al*, 2014; Endaya & Hanefah, 2013; Faruk & Hassan, 2014; Alzeban & Gwilliams, 2014) examined the relationship between the IAQ and organizational performance. KPMG (1999) studied transforming IA from its compliance role to a strategic organizational tool with the results of a survey from 201 senior company executives in the United States and found that IA function in organization, where it exists, contributes substantially to organizational performance. Hezmanson and Rotenberg (2003) in their study on IA and organizational governance stated that the existence of IAQ in an organization influence effective organizational performance. Hence, it is argued that the existence of IAQ is associated with superior organizational performance. They further suggested for more research to be done on IA effectiveness and organizational performance. The study should be carried out empirically and they recommended for it to be conducted in developing countries.

The IIA (2001) emphasized, in its definition of internal auditing, that IA “helps an organization accomplish its objective”. Assisting organizations to achieve their objectives is the central focus and reason for the existence of IA (Mihret, James & Mula, 2010). In the study conducted by Mihret, James and Mula (2011), it was indicated that there is significant correlation between the effectiveness of IAF and

the performance of an organization after employing institutional theory and Karl Marx's theory to justify relevance of IA literacy.

Therefore, determining the relationship between IAQ and organizational performance is apparently the most important attributes in auditing literature. This is supported by Hermanson and Rotenberg (2003) where they called for more research on the relationship between the two constructs. A study was conducted by Hutchinson and Zain (2009) on IAQ, audit committee independence, growth opportunities, and firm performance which analyzed 60 Malaysian firms and found that there is a significant and positive relationship between IAQ and performance of the firms. However, most of these studies were conducted on private firms, neglecting public institutions.

In the empirical study conducted by Piskar (2004) on quality audit and the value added by their presence, it was found that a significant relationship between IAQ and organizational performance existed which emphasized that IAQ should be utilized as a management technique for organizational improvement. Similarly, Gita and Linda (2017) stated that IAQ has a strong influence in the firms' objectives. In a recent study by Mahzan and Hassan (2015) on IAQ in 5s environment: perception on critical factors, effectiveness, and impact on organizational performance, they measured the dimensions of IAQ such as number of resources, IA competencies, and audit reporting relationship as well as examining how these dimensions impacted organizational performance. Ziace (2014) re-affirmed that IAQ has a positive significant relationship with organizational performance in a study conducted on the effects of IAQ on the performance of listed private firms in the Iran Stock Exchange.

The research uses quantitative analysis, considering a vast size of the population, and the statistical sampling method was used for systematic elimination. The greatest concern on IAQ relationship with organizational performance is that most literature were concentrated on private organizations.

However, Fareedmastan, *et al.* (2015) undertook a study on the effectiveness of IA in improving organizational performance: Case of Wolof University, Ethiopia. The study indicated that there was no audit committee in the university and the internal auditors do not have the required audit competence to achieve the desired objectives of the organization. The unit lacks enough resources and do not have an audit charter in place. The study shows that IA does not have a prerequisite for its quality. This means the need for involving top management to realize the value of IA is very essential. Cohen and Sayag (2010) conducted a study on the effectiveness of internal auditing: An empirical examination of its determination in Israel organizations. The result of their investigation after using correlation and regression analysis indicated that top management support was consistently the variable that determined the quality of IA which formed part of the determinant of organizational effectiveness. Their findings further indicated that the perceptions of IAQ and the added contribution to the IA were stronger in private firms than in public sectors. The need for more research on IAQ and its relationship with organizational performance in public institutions is quite imperative.

Al-Shetwit, *et al.* (2011) examined the impact of IAQ as an integral part of corporate governance structure on the financial reporting quality of all Saudi Arabian companies listed in the Saudi Stock Exchange in 2009. The results of their study

showed a weak relationship between IAQ and financial reporting quality after using matched survey and interviews of internal and external auditors. The findings indicated that the listed firms ordinarily used IA function to provide symbolic adherence to capital market authority regulations. In practice, IA function is not properly operational. The study could have used relevant theories such as institutional theory or stewardship theory and employ the variable of management support to improve on the studies. Similarly, Kiabal (2012) found the same result in his study on IA and performance of Government Enterprises: A Nigerian study. After analyzing data collected from 65 state-owned companies in Rivers State, Nigeria, it was found that IA practice and firm performance of government-owned companies is not significant. The study further identified that the lack of this relation is attributed to poor or inadequate establishment of IA function and insignificant support from the management. This shows the variables used in this are not strong enough to induce a significant relationship between the constructs of the study.

Ojong and Ekponta (2014) conducted a related study on the effects of IA function on the financial performance of Tertiary Institutions in Nigeria. The findings of the study, after analyzing the constructs of the study, indicated an insignificant relationship. This is attributed to a lack of auditor's independence, inadequate resources as well as inadequate IA staff and manpower development. The study suggested for involvement of top management for the establishment befitting of IA. In a study conducted by Alzeban and Gwilliams (2014) on the factors affecting the IA effectiveness: A survey of Saudi public sector, a total of 203 managers and 239 IA were selected from 79 Saudi Arabian public sector organizations. Data obtained

were analyzed using multiple regression technique. The findings of the study show that management support for IAF has a strong relationship between the variables analyzed. The variables were IA competency, IA independence, IA size, internal & external auditor relationship and top management support, and IA effectiveness. However, IA contribution to organizational performance is undervalued due to cultural and societal factors. Further study should be conducted with considerations given to some theories like institutional theory to test the validity of the research.

In another study conducted by Enofe, *et al.* (2013) on the role of IA in effective management in public institutions by applying the Z-test statistical tool indicated that effective management can be achieved in Edo State, a local government in Nigeria. However, IA does not play any significant role in ensuring effective organizational performance in the public sector. The findings also discovered that IA is insignificant in the entire management control, apparently not being significant enough to influence organizational performance in public institutions. Their study could have used more variables such as top management support and employ some relevant theories.

The current study will now attempt to examine each dimension of IAQ, as mentioned earlier, in relation to organizational performance from the existing literature.

2.7.1 IA Competency.

The IA profession has undergone many changes in the last two decades. This view is supported by a dramatic change on how it defines itself at a time when the profession was attempting to address the changing landscape in which internal auditors operate

(Chamber & Oder, 2015), thus, creating an ongoing need for new competencies and skills for individuals. These changes have forced the IIA as well as the individual chapters, affiliates, and regions (henceforth referred to as IIA bodies) across the globe to address this need. This involved continuously changing the syllabus of the professional certification, namely the Certified Internal Auditor (CIA) examination (IIA 2012) and implementing new or updated continuous professional development (CPD) initiatives. These professional certification goes along to Nigeria where there exists the Institute of Chartered Accountants of Nigeria (ICAN) and Association of National Accountants of Nigeria which equally implemented the mandatory professional development (MCPD) programme.

IA competency apparently consists of the development of specialized expertise that improve the IAQ. It comprises IA experience, skills, knowledge, and professional proficiency (Mahzan & Hassan, 2015). IA competency represents one of the most essential element in determining IAQ which improves the auditors' role towards organizational performance. The IIA, as prominent standards setters of IA, highlights the importance of having essential knowledge, skills, experience, and professional qualification by internal auditors to operate more effectively (ISPPA). IA competence is currently assessed through a process of certification, with the CIA designation being the only globally accepted certification for internal auditors and remains the standard by which individual demonstrate their competence and professionalism in the internal auditing field (Gita & Linda, 2017).

Therefore, IA competency represents auditors that can explicitly audit objectively and accurately with sufficient experience and attention to detail. Auditors with a

higher education will have more knowledge in their field which means they can understand problems more thoroughly. In addition, with more knowledge, it is easier for auditors to follow complex developments. This means auditors will be able to produce higher quality audit reports (Chamber & Oder, 2015). A competent auditor is an auditor that has technological skills, understands and acts on the correct audit process while understanding and using the appropriate sampling process (Gita & Linda, 2017). Internal auditors must keep their professional knowledge and skills at a higher level and work hard in applying their knowledge and skills during their service. Since the competency of IA staff is a key component of efficient IA practice (IIA, 2012), standard-setters have always emphasized on the importance of internal auditors who present appropriate level of knowledge, skills, and other competencies needed to meet tasks and responsibilities of the IA department (ISPPIA).

2.7.2 IA Independence

IA independence is one of the most critical factors for achieving IAQ (Gita & Linda, 2017). It is seen as a key driver of the IA function (Alzeban & Gwilliams, 2014). IA independence and the IIA practice advisory board is an instrument that allows IA department to function and conduct its responsibilities without interference.

As cited in Christopher (2014), in PricewaterhouseCoopers report (2002), IA departments required organizational structure that will allow them to operate effectively on strategic organizational operations. That is, if IA is strategically positioned and has necessary managerial support, it can deal with issues that can improve the organizational performance. However, against this arrangement one can raise serious concerns about the overall independence of IA functions for

organizational effectiveness. This is supported by Ahmad and Tylor (2009) who stated that the fundamental positioning of internal auditor's role results in challenges in their effort to function independently. Internal auditor's responsibilities were seen as oversight activities which involved monitoring and evaluating organizational operations (Christopher, 2014). It is considered to be instrumental in guiding and evaluating the performance of an organization (Tabandeh, 2016).

IA activity should be independent and internal auditors should be objective while carrying out their tasks. Independence, in this sense, means being free from conditions which threaten the internal auditors' ability to fulfill their responsibilities in an objective manner. Objectivity means a mental attitude free from any bias in IA activity which allows internal auditors to implement plans that they believe in their work while no compromise is needed in terms of the quality of their work (Olivia & Ratnawati, 2015).

Auditor's independence in the long run is considered as the key driver of the auditor's role. Previously, there has been much emphasis on the independence of external auditors. Now, professional bodies and standard setters assume more value for independence of internal auditors as they are commonly employees of the organization. Independence and objectivity of IA department is identified as a key component of IAQ. Professional standards all around the world show that independence and objectivity can be achieved through reporting to different levels in organizations. This enables internal auditors to fulfil their responsibilities in a free manner without any interference by other parties. It also enables the IA department to avoid any conflict of interests while maintaining direct communications with the

board of directors and senior management. They can have unlimited access to the history of employees and departments as well as have the authority to change the head of IA department without direct interference of executive management (Tabadeh, 2016).

Public internal auditors assume responsibility for good quality of audit with competence and independence. Independence is the ability to act with integrity and objectivity since that certain relationships with clients would cause third parties to question the ability of an auditor to act with requisite impartiality (Abu–Azza (2012). Independence should be met in audit work for standard and quality audit (Faruk and Hassan, 2014). Faruk and Hassan (2014) argued that the state of independence is the ability to be independent in preparing the audit program, independent in investigation, and independent in reporting audit findings.

Therefore, IA independence is the ability to carry out their work freely and in an objective manner without interference from management or other organizational personnel. Having direct access to the audit committee and reporting to the audit committee rather than management improve IA function independence. Differences in the ability of the IAQ to maintain independence are reflected in IA's reporting environment, accessibility to the board and audit committee, and direct access to organizational people, assets, and data (Faiz, *et al.*, 2017).

2.7.3 IA Size.

IA size is another important dimension in achieving IAQ which, in turn, stimulates the organizational performance. International Standards for the Professional Practice

of Internal Auditors (ISPPIA) indicated that for IA to function more effectively, it has to be sufficiently resourced (ISPPIA – Practice Advisory-2003). IA performance needs to be equipped with sufficient resources so that the department can execute its responsibilities properly (Tabandeh, 2016). ISPPIA in resource management standard states that an internal auditor is needed to assure that IA resources are appropriate and sufficient as well as utilized effectively. One of the responsibilities of audit committees is to inform top management of any resource deficiencies (ISPPIA, standards 1409 and 1609). A sufficient number of internal auditors should be employed and training should be continued to ensure the continual professional competency of internal auditors. Previous studies Mihrat (2010), Ahmed (2015) and Alzeban and Gwilliams (2014) indicate that, when there is sufficient number of staff, the quality of IA will probably increase and, at the same time, the performance of the organization also improves. Ali *et al.* (2007), for example, stated that the most intensive problem for IA is coping with a lack of competent staff. Another study by Ahmed *et al.* (2015) reported that, according to respondents, “fewness of internal auditors” was the main reason limiting the success of IA performance in Malaysian governmental organizations. They suggested that, with strong management support, IA department should have access to sufficient human resource and other types of resources needed to enable employees to successfully meet their responsibilities in improving organizational performance.

Anderson *et al.* (2012) revealed that in IA function, size is inversely associated with the percentage of IA employees that are Certified Internal Auditors and the extent of assurance and compliance activities outsourced to outsiders. These two factors decrease the amount of work performed by the internal auditors and is an indicator of

performance. Tabandeh (2016) in his study indicated that, for internal auditor to perform effectively towards contributing to organization, they need to be fully equipped with sufficient staff.

2.7.4 IA Reporting Line.

IA reporting line is an important area of IA practice since the beginning of the profession in the 1940s (IIA, Research Foundation, 2003). Lawrence Sawyer, who described internal auditing as the “eyes” and “ears” of management (Picka & Mulej, 2004) implied that reporting relationship would normally be to the senior management because of the emphasis on internal control evaluation. However, with the advent of IA definition adopted by IIA in 1999, it recognizes that there are other constituencies for IA services. These important constituencies include the chief executive, audit committee, and operational management. Each of these constituents are expected to be served by internal audit.

In a study conducted by Adeyemi *et al.* (2012) on factors affecting IAQ in Nigeria, an insignificant relationship of IA reporting with organizational performance due to ineffective audit committee independence was found. In a related study, Ejoh and Ejom (2014) indicated that reporting line do not have a significant influence on financial performance in the colleges they analysed because internal auditors do not conduct their responsibility with a greater degree of autonomy and independence. In another study conducted by Al-Shetwi *et al.* (2011), an insignificant impact on the financial performance due to inadequate corporate governance with series of structural defects in the organizations was discovered. The study suggested capital market authority (CMA) to formulate specific rules relating to IA function, for

example IA reports should be presented in the company's general assembly (Board) against reporting to senior managers.

The position of internal auditor in an organizations' main organogram, that is the IA reporting line, certainly influences the quality of the audit. When internal auditors find themselves reporting only to the chief executive, the tendency of compromising audit findings is high.



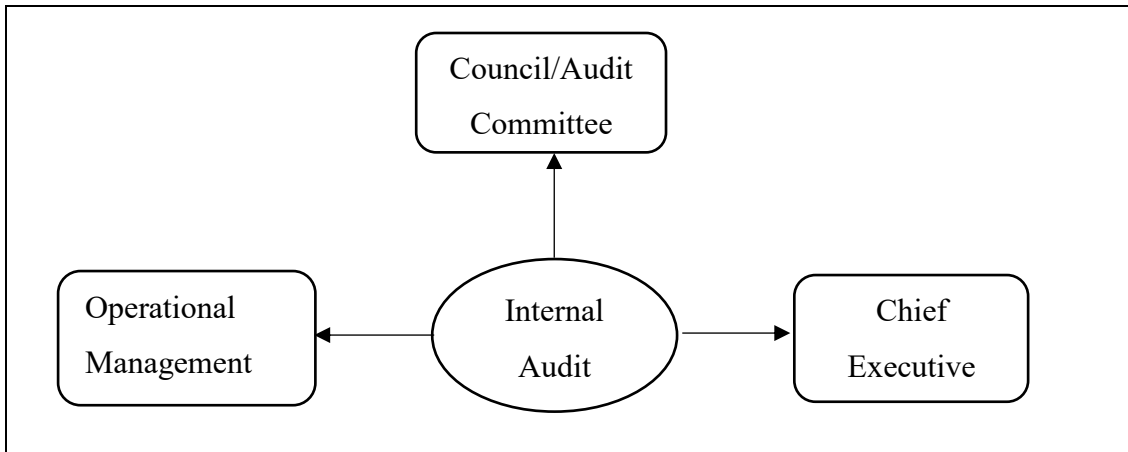


Figure 2.1
Major constituents expected to be served by IA
Source: IIA Research Foundation, 2003 (*IA Reporting Line*)

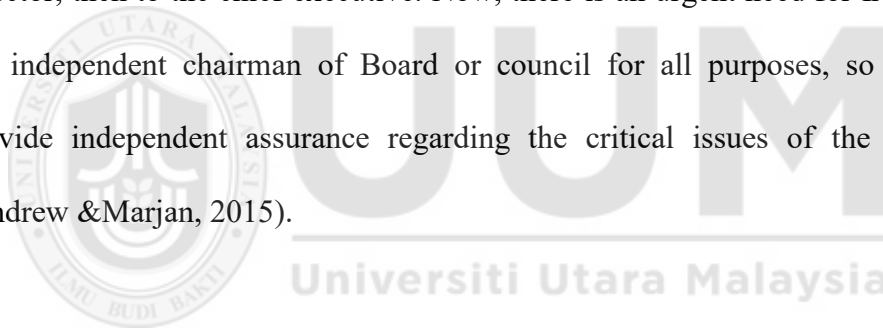
The demand from these constituents (audit committee, chief executive and operational Managers) differs. Audit committee and the chief executive are concerned with assurance regarding risks and controls, while operational/senior managers are concerned with consultation regarding effectiveness of controls.

International standards for Professional Practice of Internal Auditors (ISPPA) (Standards) made a clarification with regards to IA reporting line for achieving effective organization performance. The standard states that “Appropriate reporting lines are critical to achieving the independence, objectivity, and organization performance for IA function necessary to effectively fulfill its obligations. IA reporting lines are also very imperative to ensuring the appropriate flow of information and accessibility to organization’s executives”.

The standards suggests that reporting lines must include the chief executive officer and audit committee (AC) but not explicitly deny reporting to others such as the chief finance officer. Due to IA reporting relationship being a key player for

achieving IAQ, it is equally an important contributing factor for the overall organizational performance.

Boyle (2012), in his study, viewed that in order to realize effective organizational performance, the chief audit executive (CAE) should report to the level where it will facilitate IA to fulfill its roles and should be free from management interference. This view was supported by the IIA and ISPPIA Practice Advisory Board which states that CAE should report functionally to the audit committee and administratively to the chief executive of the organization. It is quite imperative for IA to progress from reporting to mid-level management to report to the finance director, then to the chief executive. Now, there is an urgent need for IA to report to the independent chairman of Board or council for all purposes, so that IA can provide independent assurance regarding the critical issues of the organization (Andrew & Marjan, 2015).



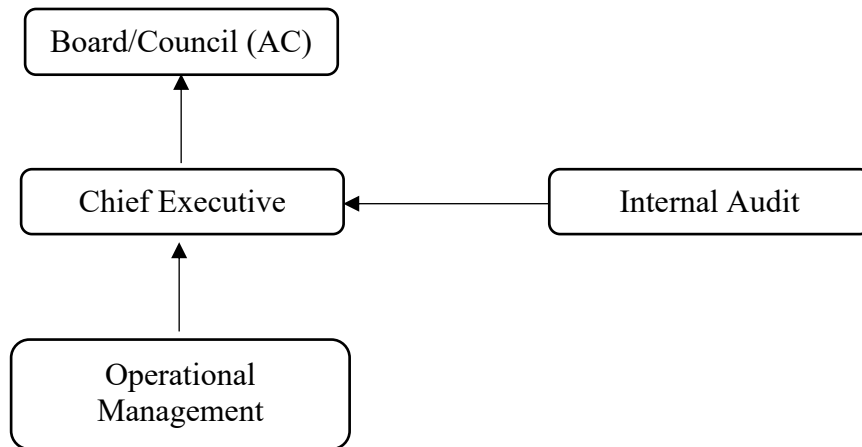


Figure 2.2
Alternative reporting line only to the chief executive officer (CEO)

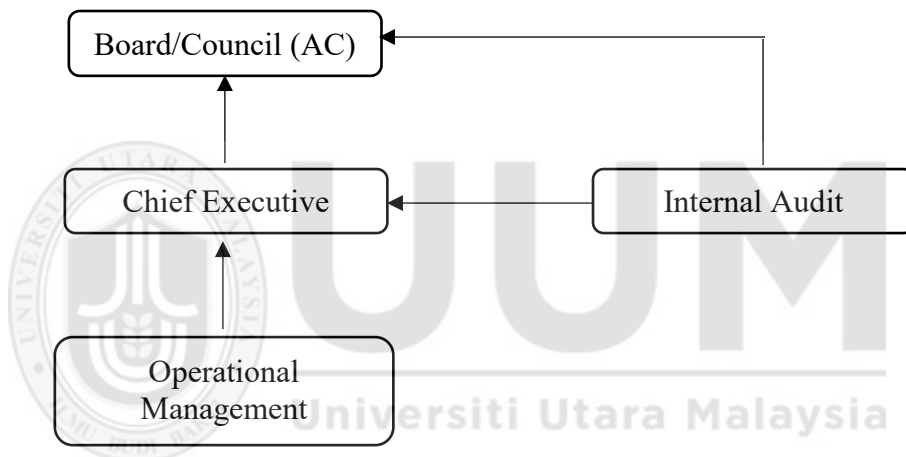


Figure 2.3
Alternative reporting line to Boards' audit committee (A/C) and Chief Executive Officer (CEO)

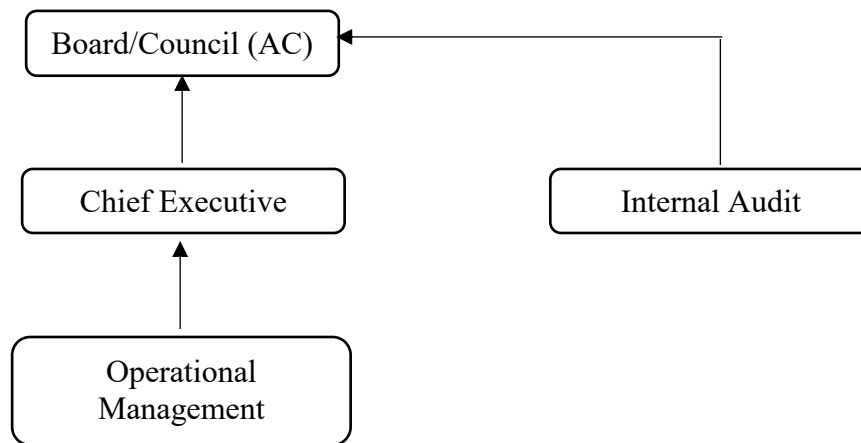


Figure 2.4
Alternative reporting line to Audit Committee (A/C) of the Board/Council

The first role for IA reporting line is to AC and the second role is to serve as a consultant to the management (Gramling & Hermanson, 2006). The functional reporting line for IA is considered as the source of its independence and objectivity which, in turn, improves organizational effectiveness.

For IA to achieve its objectives in realizing efficient organization performance, it should not participate directly in management decision-making processes, rather it be consulted with key decisions. An internal auditor as a trusted advisor should encourage effective communication with management and audit committee of the Board or Council (Alic & Rusjan, 2011). Mahzan and Hassan (2015) indicated that IA reporting line is an output of IAQ that facilitates effective organizational performance.

Obviously, reporting lines of IA are dynamic and have developed along with progress of the IA discipline. Initially, IA activities are more on financial issues, which the report goes to the officer in charge of finance. Later, IA functions shifted to a more complex and difficult relationship by having more constituents, which are

the audit committee of the Board/Council, the top management/chief executive, and possibly with other stakeholders, with each of these constituents being interested on their concern (Rupsys, 2005). IA reporting lines are normally categorized into functional and administrative (ISPPPIA). Top management has a crucial role to play in moderating these relationships for IA to achieve its quality for which it is established and internal auditors must keep top management informed on all their activities and the conclusions reached (Ahmad, *et al*, 2009; Badara & Saidin, 2012; Alzeban & Sawan, 2013).

2.7.5 Timeliness of IA Report.

Timeliness of IA report is considered as one of the vital factors that affects the usefulness of information intended to make decision available to the end users to the period it takes in conducting the audit process (Shukeri & Nelson, 2014). Timeliness of IA report is an important variable that justifies IAQ. Organizations are interested in having complete, transparent, and very reliable information about their activities. Timeliness of IA report is the period in which a specific report is issued to the organization when it is due. It is as vital as the timely receipt of information to executive management in risk management control (Al-Matarneh, 2011).

Both public and private organizations are interested to have transparent reporting systems for effective decision making. This is why financial and non-financial information must be timely and reliable. Information on IA report-finding loses its credibility and usefulness when the audit report is not made available in time (Shukeri & Nelson, 2014). Timeliness of IA report is directly associated with the effectiveness of IA function (IAF). Therefore, for high quality IA, the timely

reporting to end users and management response is considered as an element that requires in-depth research. The overall measure of IAQ is timeliness of IA report (Al-Shatwi *et al*, 2011). Mahzan and Hassan (2016) indicated that timeliness of IA report is influenced by the organizational size and how management conceived IA reports.

It is well recognized that the timeliness of audit reports is influenced by a number of variables. Prior research studies on timeliness of IA report have documented that the delay in audit reports can be attributed to specific organizational characteristics and complexities such as organizational size, number of subsidiaries, and corporate governance structure. Others can be Board independence, audit committee independence, and frequency of boards or audit committee meeting (Rusmin &John, 2017). The IA reports that are served to the management are seen as a reliable source of information for all stakeholders. A gap does, however, exist between the end users and the production of the report for quality information and any extended delay may impact on the usefulness and relevance of the information. The issue of timeliness of IA report has attracted considerable attention from professional bodies, researchers, regulatory agencies, and users of accounting information as an important characteristic of IAQ (Rusmin &John, 2017). Timely accounting information will lead to organizational confidence and, thus, enhance performance. The timeliness of IA reports has become an important issue as the timing and delivery of the reports has considerable effects on the relevance of information they contain (Brazel *et al.*, 2017).

The study will now examine top management support as the study's moderating variable on those dimensions of IAQ with organizational performance from the existing literature.

2.8 Top Management Support as Moderating Variable

Top management support has, for quite a long time, been considered as a determinant factor for a successful IAQ. Management attitude towards the activities of IA has significant influence on organizational performance (Alzeban & Gwilliams, 2014).

Several studies (Cohen & Sayag, 2010; Alzeban & Sawan, 2013; Mihret & Yismaw, 2007; Mahzan & Hassan, 2015) indicated that management support is linked to the provision of efficient resources to IA in the area of staff training, recruitment, and professional development to improve on their competency as an auditor and having an independent IA department. In this study, top management support is employed as the moderating variable between the independent variable of IAQ with the dimensions of IA competency, IA independence, IA size, IA reporting line, and timeliness of IA report; and the dependent variable of organizational performance.

The idea of employing top management support to serve as the moderating variable is supported by Baron and Kenny (1986) which stated that “the moderator - mediator variable distinction in social psychological research, and moderator functions as third variable, which partitions a focal independent variable in to subgroups that establishes its domain of maximum effectiveness with regards to a given dependent variable”. Baron and Kenny (1986) further emphasized that a moderator strengthens

the relationship between the predicting variable and criterion variable. Sekaran (2003) further stated that the moderating variable performs the function of independent variable by strengthening other independent variables towards achieving the dependent variable. Moderating variables, therefore, affect the connection between the predicting variables and the criterion variable. Sekaran (2003) also reaffirmed that a moderator has a significant effect on the independent – dependent variable relationship and its presence modifies the original relationship between the predicting and criterion variables. *Mediating* variable, on the other hand, describes the process by which the intervention achieves its effects, whereas moderating *describes* intervention that has a different effect at different values of the moderating variable. Mediating and moderating variables are examples of third variables. A mediating variable specifies a causal sequence of independent variable(s) to dependent variables while a moderating variable does not specify a causal relation. It describes how the relation between the independent variable and dependent variable differs across levels. A moderating variable is employed in the present study due to the nature of management support (either low or high) to audit functions and focuses on the extent of the relationship between the dependent variable of organizational performance and independent variables indices of IAQ vary with respect to the nature of support by the management. Therefore, the moderating variable of top management support in this study seeks to explain how variation in the level of top management support in the relationship of IAQ and organizational performance in Nigerian Federal Universities.

Among the studies that employed a moderating variable in the area of IAQ are Krishnamurthy (2008); Sharma *et al.* (2011); Kamarud-din *et al* (2013); Endayah

and Hanefah (2013); Christopher (2014); Baharud-din *et al.* (2014). Top management support as a moderating variable is supported by a study conducted by Endayah and Hanefah (2013) on the proposition to develop a theoretical frame on IA effectiveness. Their study argued that IAQ is directly impacted by organizational members' support. The result of their study indicated that organizational member support which was employed as a moderating variable is significantly related with IAQ which, in turn, contributes to organizational performance.

Other studies with a similar opinion are Cohen and Sayag (2010), Badara and Saidin (2014), and Alzeban and Gwilliams (2014). Their studies further indicated that the dimensions of IA independence, IA competency and IA size alone cannot guarantee IAQ. Therefore, the application of top management support as a moderating variable in this study will be relevant in realizing effective organizational performance.

The study examined the relevant literature on the dimensions of IAQ consisting of IA competency, IA independence, and IA size, IA reporting line, and timeliness of IA report and the moderating effect of top management support. The study will now focus on the underpinning theories of the research.

2.9 Underpinning Theories of the Study

Quite a number of theories exist which have been employed by many scholars in the areas of accounting, auditing, and management (Subramaniam, 2006). Some of these theories include agency theory, stewardship theory, contingency theory, resource dependency theory, resource-based theory, stakeholders theory, institutional theory and Marxs' theory. This study extends the literature by employing stewardship

theory to be supported with the resource dependency theory to explain the relationship between IAQ and organizational performance with a moderating variable of top management support. The study will also examine how these theories would contribute towards the realization of effective organizational performance.

The fact that the predominant theoretical focus of many previous studies in the area of accounting and auditing rests upon the foundation of agency theory (Ahmad, 2015) shows the existence of IA in an organization. However, Mihret, James, and Mula (2010) urged that the premise of agency theory mainly focuses on principal-agent relationship and this may not be sufficient to address IA research, especially in the current complex role of IA in public institutions.

It is in view of this shortcoming that this study suggests the application of the stewardship theory to be supported with the resource dependency theory in examining the relationship between IAQ and organization performance in Nigerian federal universities. It is under the premise that the study expects to offer imperative contribution to the body of knowledge in the diverse and complex nature of internal auditing in public organizations (Al-Tawijry, *et al*, 2003; Endaya & Hanefah, 2013).

2.9.1 Stewardship Theory

Stewardship theory is a framework which argues that people are intrinsically motivated to work for others or for the organization to accomplish the task and responsibilities with which they have been entrusted. It argues that people are collectively minded and pro-organization rather than individualistic and, therefore, work towards the attainment of organizational, group, or social goals because doing

so gives them high level of satisfaction. Stewardship theory provides one framework for characterizing the motivational behavior in various types of organizations. It considers that, from the beginning, an organization serves a wider social purpose than ordinary profit-making or maximizing the fortunes of shareholders. It holds that organizations are social entities that are concerned with the welfare of stakeholders having a relationship with the organization and are affected by the achievement or performance of that organization (Donaldson & Preston, 1995).

Successful organizations are rated by their ability to add value to their stakeholders. Stewards can be instrumental to the success of the organization and they can have moral and legal rights to drive their actions (Ulrich, 2008). Organizational leaders, therefore, have to consider the right of stakeholders when taking decisions (Rothman & Friedman, 2001). The participation of stakeholders in organizational decision-making enhances organizational efficiency and reduces misunderstandings and conflicts of interest (Rothman & Friedman, 2001). Therefore, stewardship theory suggests that senior organizational members or the board acting as stewards are more inclined to behave in the best interest of the organization rather than their own selfish interest. This is because, over time, both the staff and top management including the board members tend to view the organization as an extension to themselves (Ulrich, 2008).

Stewardship theory is of the view that stakeholders are integrated in decision processes pertaining to the activities of the organization for effective governance-making structure (Mulili & Wong, 2011). Stewardship theory posits that some organizational members are more likely to consider organizational interest even if

such interest would be in conflict with their own interest (Donaldson *et al.*, 1991). According to Devis *et al.* (1997), stewards are the executives employed by the principal whereby their interest tends to align with that of the principals. They are originally centered around chief executives who identify themselves more closely with the organization they serve. They derive their satisfaction from behaviors that improve the performance of the organization. They put the interest of the organization first where conflict of interest arises in the organization (Tosi, *et al.*, 2003).

Stewardship theory examines the relationship and behaviors often discounted in the organizational economic theories emphasizing collective and pro-organizational behaviors in which high value is placed on goal convergence rather than on agent self-interest. In stewardship theory, managers are not motivated by their individual needs but, rather, are stewards whose motives are aligned with the objectives of the organization (Davis, *et al.*, 1997). In case of the government-nonprofit social services relationship like the Nigerian federal universities which is the context of this study, stewardship theory is an appropriate model. This is by virtue of their organizational forms and specialized mission which focuses generally on research, teaching, and community services. Davis, *et al.* (1997) further showed that stewards are motivated by intrinsic rewards such as trust, reputational enhancement, reciprocity, job satisfaction, discretion and anatomy, level of responsibility, stability and tenure, and mission alignment.

The choice of this theory in this study is based on its prominence in public organizations, as this study focuses on public institutions (Nigerian Federal

Universities). It serves as an alternative to agency theory and offers opposing predictions about the structuring effective board. Its model is based on “stewards” rather than what is known as self-interested “agency”. Although agency theory can be equally useful in this study by showing the existence of IA in the organization, however, stewardship theory is much more appropriate and would be considered in this study.

Argyris (1964), in his study on organizational literature stated that stewardship theory, recognizes a range of non-profit motives for organizational leader’s behaviors which include, among others, achievements and recognition, satisfaction out of successful performance, respect for the authority, and work ethics. They further stated that organizational leaders are viewed as interested in recording high levels of performance and are capable of using their discretion to act selflessly for the benefit of the organization (Donaldson & Davis, 1991). Therefore, stewardship theory maintains that organizational leaders, when faced with any cause of action, are seen as personally unrewarding and they comply based on the sense of responsibility, integrity, and commitment to the organization (Etzioni, 1975).

Under the stewardship theory, management is viewed as loyal to the organization and interested in achieving high performance. The underlying motives which direct management of the organization to accomplish their job effectively is their desire to perform excellently. Management and other line staff are conceived as being motivated by a need to achieve or gain intrinsic satisfaction through successfully performing inherently challenging jobs. They exercise responsibility and authority, and, thereby, achieve recognition from the stakeholders and the community at large.

This is why the theory emphasizes that an organization requires a standard structure that facilitates the harmonization between the management and stakeholders for effective and efficient performance. Contrafatto (2014) stated that stewardship theory inspired the activities of many organizations whose mission is to preserve, protect, and maintain natural, social, and economic assets for the benefit of stakeholders and communities. Earlier, Contrafatto (2014) observed that stewardship theory recognized the current policy agenda and matched to the issues related to sustainable development, corporate social responsibility, and accountability.

Therefore, stewardship theory predicts that stakeholders can expect best outcome or result when organizational structure facilitates effective delivery of services by their operators. It holds that performance variations arise from whether the structural situations of an organization allow for the effective execution of departmental responsibilities. Applying this model to support this study assumes that internal auditors are favored for their sense of responsibilities, knowledge, technical expertise, commitment to organizational efficiency and effectiveness, and can serve selflessly for the improvement of the organization. Equally, the top management's support, integrity, commitment, and selflessness towards the organizational efficiency demonstrates the application of this theory, taking into consideration the organizational performance as the main focus of this study.

Some research scholars adopted the stewardship theory for the understanding of social and organizational dynamics and in explaining the relevance of IA in organizations through different approaches and perspectives. Some of these scholars are Donaldson and Davis (1991) and Contrafatto (2014).

Based on the above, it is evident that the stewardship theory is useful in explaining the relationship between the IAQ dimensions consisting of IA competency, IA independence, IA size, IA reporting line, and timeliness of IA report, and organizational performance, with top management support as a moderating variable in the context of Nigerian federal universities. Of course, it is also relevant to be embedded in the development of this study.

2.9.2 Resource Dependency Theory

Resource dependency theory is used in this study to support the main theory of the study. Resource dependency theory was originally formulated to discuss relationship between organizations (Ulrich & Barney, 1984). The theory is applicable to relationships among the units within an organization. It is a persistent structure allowing interaction with both internal and external resources. Resource dependency theory provides power is based on the control of resources that are considered strategic within the organization (Pfeffer & Salancik, 1978). The theorist believed that competency is for coping with and solving the critical problems of the organization that arise from its environment. Pfeffer and Salancik (1978) stated that organizational policies and structures are results of decisions affected by the distribution of power and control and administrators who control organizational activities.. Hence, an organization has to be filled up with competent persons capable of handling these important activities. Organizations are assumed to be comprised of internal and external coalitions which emerge from social exchange that are formed to influence and control behavior (Ulrich & Barney, 1984).

The theory provides that a firm can manage vagueness by engaging a competent source of its limitation onto the firm, thus challenging the sovereignty for support.

The anticipation is that having a politically-connected person on the board provides the source of constraint with a vested interest in the dependent organization's survival. For the first several years, board ties were probably "the most empirically examined form of intercorporate relation" from a resource dependence perspective (Pfeffer, 1987). Though extent literature on coalitions unquestionably dwarfs all other areas at this juncture. The evidence on board ties, like that on joint ventures, primarily came from industry-level correlations showing that the prevalence of ties to competitors was related to the level of industry concentration (Pfeffer and Salancik, 1978) while inter-industry ties mapped onto the level of exchange-based constraints between the industries (Burt, 1983).

In this study, resource dependency theory was underpinned by the idea that resources are key to organizational success and that access and control over resources is the basis of power. Resources are often controlled by organization not in control of the organization needing them. This means that strategies must be carefully considered in order to maintain open access to resources. Resources, be they human or material, are the key ingredients for any successful organization (Hillman, Withers and Collins, 2009).

2.10 Summary of the Chapter

In this chapter, key articles, journals and books were studied and reviewed. The chapter provided a conceptualization of IA function and its impact in Nigerian public institutions. IAQ with dimensions of IA competency, IA independence, IA size, IA reporting line, timeliness of IA of report, and organizational performance were reviewed. The chapter discussed the relevant literature of the two constructs of the study. The moderating variable of the study and its effects on IAQ dimensions were

also discussed. The chapter also discusses underpinning theories of stewardship theory and resource dependency theory in relation to the constructs of the study.



CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

In the last chapter, related literature on IAQ with the dimensions of IA competency, IA independence, IA size, IA reporting line, and timeliness of IA report in relation to organizational performance were discussed. In addition to that, top management support as the study's moderating variable was discussed. Basically, the researcher adapted these variables from previous studies conducted by Endayah and Hanefah (2013); Alzeban and Gwilliams (2014); Badara and Saidin (2014); Mihret (2010); Kiabel (2012); Unegbu and Kida (2011) and Ejom and Ejoh (2014). A variable of top management support was also adapted from the study conducted by Cohen & Sayag (2010) on effectiveness of IA in Israel's public sector organizations. The choice of these variables for the purpose of this study is because of their relevance to Nigerian public institutions, particularly, in Nigerian federal universities. This chapter also discusses research methodology and procedures employed by this study. Specifically, the current chapter covers nature and philosophy of this study while also discussing the research framework. The chapter discusses hypotheses development, research design, population and sampling of the study as well as data collection and data analysis techniques.

3.2 Nature and Philosophy of the Study

The nature and philosophy of this research is going to be quantitative because, under this method, the researcher expresses views on the reality of things or knowledge based on their own philosophical view point to assist in justifying or providing a

direction to the theoretical framework (Cohen & Vigoda, 2000). This clearly indicates that a researcher is expected to be as independent as possible of the research in order to be objective and reduce any influential factors that may jeopardize the research process (Creswell, 1994).

The view expressed by Creswell (1994) was argued by a scholar, Neuman (2006), who said that empirical evidence occurred differently against ones' views and perceptions since those evidences are received in a significant way. The explanation of the social facts is in a manner of statistical presentation. It is in view of this that the Underpinning Philosophy of this study is positivism since this study is quantitative.

A quantitative research is a social enquiry that employs the use of empirical methods with empirical conclusions (Cohen, 1980). This study is quantitative in nature because it intends to employ the use of measuring tools to understand the relationship between the IAQ with dimensions of IA competency, IA independence, IA size, IA reporting line, and timeliness of IA report, and organizational performance in Nigerian federal universities.

In view of this, the research is in line with the requirements of quantitative research which the social reality determined through the use of statistical methods of data collections and the explanation of the outcome (Creswell, 1994). The study will now attempt to develop a framework that will guide the research.

3.3 Research Framework

Researchers used different approaches or may have different views in solving one problem or another depending on the situation. However, most researches are being conducted with a variety of perspectives and objectives. This research attempts to examine the relationship between the independent variables, as mentioned earlier, with dependent variables. Also, the conceptual framework is discussed and a moderating variable of top management support is employed to moderate the relationship between the two constructs. This is presented in Figure 3.1. The section also attempts to develop a theoretical framework which will guide the study in developing or formulating the research hypotheses.

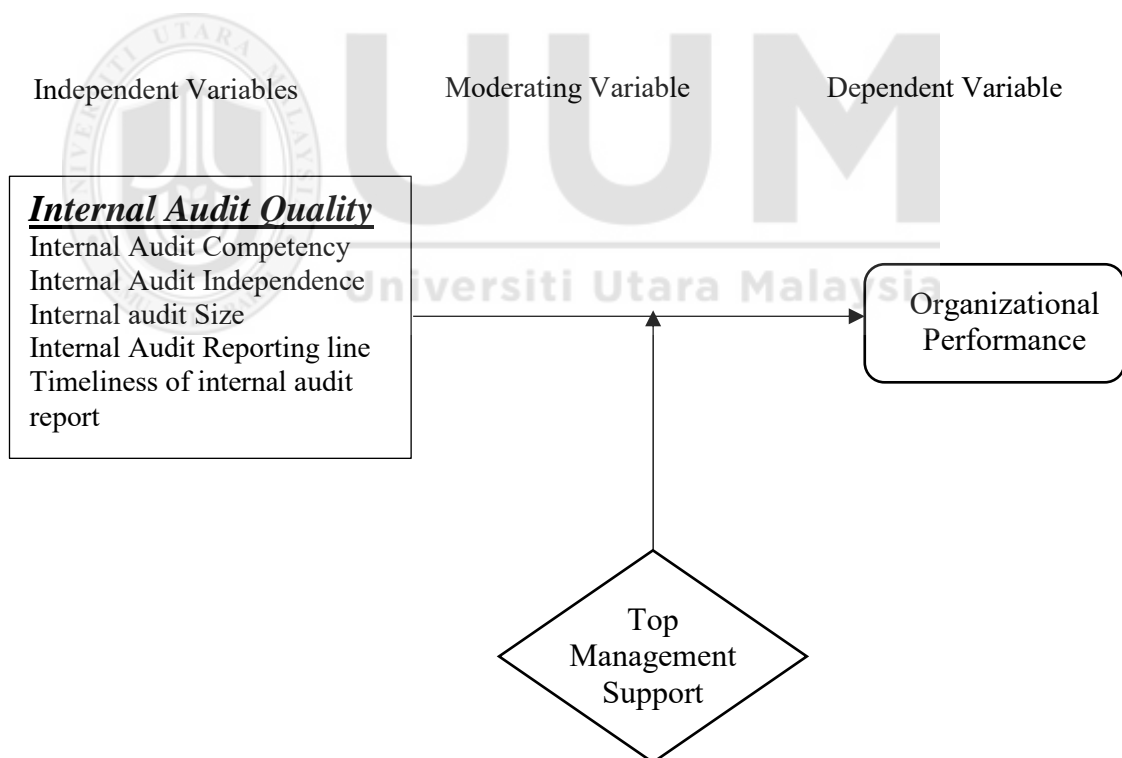


Figure 3.1

A conceptual research framework showing the relationship between the independent variables, dependent variable and moderating variable.

From Figure 3.1 above, we can see a direct relationship between IAQ with organizational performance. IAQ in this model has the following dimensions; IA

competency, IA independence, IA size, IA reporting line, and timeliness of IA report. The dependent variable is organizational performance while the moderating variable is top management support.

Even though there are several controlled variables that can measure the organizational performance, this study only measures the dimensions of IA competency, IA independence, IA size, IA reporting line, and timeliness of IA report. Apart from the demography of the respondents, other controlled variables which the study did not measure consists of IA objectivity, communication, motivation, audit committee, quality of work performed by internal auditors, and many others. This is due to the fact that bringing all of the items under the model of the study would be cumbersome. Some of the items were discussed by other researchers. Moreover, results from a few variables is often more realistic and can easily be analysed and interpreted.

The study will now focus on the hypotheses development.

3.4 Hypotheses Development

The direction of this research is to examine the relationship of IAQ with organizational performance in Nigerian federal universities. The objective of the research is to identify the relationship between IAQ with dimensions of IA competency, IA independence, IA size, IA reporting line, and timeliness of IA report as the study's predicting variables, and their impact on organizational performance as the study's criterion.

Based on extent literature, a theoretical framework was developed and, from the theoretical justifications of the framework of this study, hypotheses were developed for empirical testing and validation as illustrated in Figure 3.2. This study has three main constructs comprised of IAQ with the following dimensions: IA competency, IA independence, IA size, IA reporting line, and timeliness of IA report as the independent variables. Organizational performance is the dependent variable while top management support is the study's moderating variable. Seven (7) hypotheses were proposed in this study which are concerned with the relationship between the variables under study. The study will, therefore, consider the relationship of the constructs that will guide the study in developing the hypotheses.

3.5 Reviewing IAQ Dimensions, Top Management Support and Organizational Performance Relationship to Develop the Hypotheses.

The most important part of effective IA process for effective organizational performance is to maintain quality IA (IIA, 2002). The International Organization for Standardization (ISO, 90001) established a standard for IA practices which covers the implementation of quality assurance and improvement programme for IA operations. These methods are needed by ISO 9001 standards for undertaking a study on IAQ to determine the compliance requirement and report non-conformity identified in the audit process (ISO 9001, 2000). Therefore, audit processes should include a work plan, reporting, competency, and other factors that can complement the IAQ for achieving organizational performance (Mihret, *et al*, 2010). This study reviews IAQ dimensions, top management support, and organizational performance relationships with a view to develop the hypotheses that will guide the study.

3.5.1 IA Competency and Organizational Performance

IA competency apparently revolves around the development of specialized expertise that improve the IAQ. It comprises IA experience, skills, knowledge, and professional proficiency (Mahzan & Hassan, 2015). IA competency represents one of the most essential dimensions in determining IAQ which improve the auditors' role towards organizational performance. The IIA, as prominent standards setters of IA, highlights the importance of having essential knowledge, skills, experience and professional qualification by internal auditors to operate more effectively (ISPPIA).

Hutchinson and Zain (2009), in their study on IA experience and qualification and firm performance from Malaysia, indicated a significant relationship between qualification of IA and firm performance after employing multiple regression analysis to test the data obtained from 60 listed firms in Malaysia. Prawitt *et al.* (2009) conducted studies to examine the association on earning management. The findings of the study after using ordinary least square (OLS) regression to test the data obtained from 218 companies shows a significant association between the two constructs.

In an empirical examination of determinant of IA effectiveness – IA qualification, experience, and professional proficiency, Cohen and Sayag (2010) conducted their studies in Israeli organizations to examine data collected from 108 organizations. The result of the study using correlation and regression analysis indicated a significant relationship of IA competency with organizational performance. Although the model used in their analysis combined both private and public organization, the regression analysis showed that the positive relationship is more on

private organizations. This is due to their sensitivity in implementing internal auditing standards. Studies in IA competency and organizational performance are limited and generally concentrate on private firms (Al-Matari *et al*, 2014).

Similar studies (Chi, *et al*, 2010; Gaballa & Ning, 2011; Brown & Jones, 2011; Wang *et al*, 2012; Knapp & Knapp, 2001) have indicated that IA competency has strong relationship with firm performance. To this effect, IA competency will be employed to examine its relationship with organizational performance in public institutions with particular reference to Nigerian federal universities.

Previous studies indicated the need to conduct studies in IA and its contribution to public sector organizations (Unegbu & Kida, 2011; Omar & Abubakar, 2012; Alzeban & Gwillian, 2014; Vijayakumar & Nagaraja, 2012; Radu, 2012; Badara & Saidin, 2013). This is in support of the IIA practice advisory 1210 – 1, which states that IA should possess required knowledge, qualification, experience, and other competencies for them to perform effectively. There is certainly a need to have and apply new ideas, approaches, and techniques in order to improve and add value to organizational performance (Buregeya, 2007).

Ali *et al*. (2012) examined the relationships and suggested a need to focus on IA competency because a lack of it creates obstacles towards organizational performance especially in developing countries. This is supported from the results of Brierley *et al*. (2001; 2003) who conducted studies in the southern Sudanese public institutions. The studies conducted by Mihret and Yesmaw (2007) and Mulagatta (2008) supported the views, where they indicated that a lack of qualified, experience,

and professional audit staff are some of the factors hindering IA effectiveness. They suggested that IA should have sufficient educational qualification and adequate continuous professional development programmes to enable them to upgrade their skills and knowledge to meet organizational expectations.

Al-Matari, *et al.* (2014) and Badara and Saidin (2014) recommended for a re-examination of IA competency (IA experience, qualification, and professional knowledge) to enable internal auditors to improve on their effectiveness. Alzeban and Gwilliams (2014), who conducted studies on “factors affecting the internal auditor’s effectiveness: A survey of Saudi Arabian public sector”, measured competency of IA with four variables of educational qualification, professional certificates, work experience in the field of internal IA job, continuous training, and other staff developmental programmes. The result of their findings indicated competency and IA effectiveness to have a positive relationship which, in turn, leads to organizational performance. Mihret *et al* (2010); Abu – Azza (2012) and Alzeban and Sawan (2013) found that competency of IA has a significant and positive relationship with IAQ which leads to a significant impact on organizational performance. That means the need to ensure internal auditor possesses the required qualification, skills, and adequate knowledge to execute their responsibilities more effectively is quite imperative. Based on the above, the following hypothesis is developed:

H1: There is a significant relationship between IA competency and organizational performance.

3.5.2 IA Independence and Organizational Performance

In earlier studies, Al-Twaijry *et al.* (2003) examined the “relationship between the internal and external audit in Saudi Arabia corporate sector” which argued IA may not necessarily be in a strong position to exercise such functions. Similarly, in their studies on internal auditor’s independence: An agency lens on corporate practices it was found that internal auditors act as an “agents” and “monitor”.

The internal auditor’s ability to exercise their responsibilities with a certain degree of independence is very critical to the profession and this challenge is typically the requirement by corporate governance codes. IA should channel their report functionally to the audit committee of the board or council and administratively to the chief executive officer (CEO) (Ahmad & Tylor, 2009). This unique role of assurance services to organizations and consultancy services to top management places IA in a conflict situation (Stewart & Subramaniam, 2010).

In another development, Cohen and Sayag (2010) stated that IA independence reduces misunderstandings and conflicts of interest in managerial operations. Even though internal auditors are part of the management and equally expected to evaluate the activities of the entire management, the required organizational independence allows them to function efficiently to the overall performance of the organization. Chie and Karlsson (2010), on the other hand, opined that threats to auditor’s independence undermine the auditors’ effectiveness in executing their responsibilities which affect the performance of an organization.

In an empirical examination conducted by Mihret, *et al.* (2010) on “the antecedent and organizational performance implication of IA effectiveness: some proposition and research agenda” found that internal auditor’s independence and organizational performance has a significant relationship. Abu–Azza (2012) equally indicated a positive relationship between IA independence and organizational performance in the study conducted on perceived effectiveness of IA in Liberian public institutions. Faruk and Hassan (2014) conducted a study on the impact of IAQ and financial performance of quoted cement companies by the Nigerian stock exchange and found a significant relationship between IA independence and financial performance after applying multiple regression analyses. Studies on IA independence and organization performance are more glaring in private sectors and the results of these findings are generally positive and significant, however, public sectors do not receive as much attention from researches.

Alwala and Biroari (2015) study indicated a positive relationship between IA independence and share performance. However, the study conducted by Haile Mariam (2014) on determinants of IA effectiveness in the public institutions: A case study of Ethiopia public institutions after employing the variables of top management support, IA independence, competence and adoption of IA charter found a significant relationship between the constructs.

The contribution of IA independence to organizational performance has a wide range of literature, (Dimeggio & Powell, 1983; Vanasco, 1996; Krishnamoorthy, 2002; Mutchler, *et al.*, 2001; Ebrahim, 2001; Buregeya, 2007; Christopher, 2009; Hutchinson, *et al.*, 2010; Suwaidan and Qasim, 2010; Nam, 2011; Bliss *et al.*, 2011;

Mohammad, 2012; Yasin & Nelson, 2012; Cristopher, 2014). However, most of these literature were conducted in advanced nations and mostly on private organizations. Based on the above, the following hypothesis is developed:

H2: There is a significant relationship between IA independence and organizational performance.

3.5.3 IA Size and Organizational Performance

Several studies suggest that IA works successfully and reliably when there is a sufficient number of audit members. Ali *et al.* (2007) studied the Malaysian local and state government IA department and found a serious problem facing internal auditing which was a shortage of qualified members of IA staff. Equally in another study, Ahmad *et al.* (2009) showed that the critical issue limiting IA to function effectively in Malaysian public sector organizations is the shortage of IA staff. The study further elaborated that a greater number of the respondents to the questionnaire indicated that a lack of sufficient number of audit staff is behind the ineffectiveness of IAQ which results in a negative effect to the organizational performance. However, their study should employ more variables, especially top management support.

Mihret and Yismaw (2007) and Obeid (2010) evaluated IAQ in public sector organizations. The results of their findings show that IA departments were significantly understaffed, limiting their ability to perform more effectively which impacted negatively to the overall performance of the organization.

Alzeban and Gwilliams (2014), in their study on factors affecting the IA effectiveness: A survey of the Saudi Arabia public sector, found a significant relationship between IA size and IAQ. However, they suggested management support for the IA function to function effectively since there is a link from providing sufficient resource to the effectiveness of IA function. In the study conducted by Al-Matari *et al.* (2014) on the effect of the IA size and company performance, they evaluated the relationship between IA size and firm performance. The result of the study indicated a positive relationship between IA size and firm performance. Faruk and Hassan (2014) found that IA size and IAQ is positively related with financial performance of quoted cement companies in Nigeria, after applying multiple regression analyses. However, they suggested to improve on auditors number in order to improve their performance. Variable of top management support should be considered in their study, considering its relevance in improving the quality of IA in relation to organizational performance.

Miettinen (2011); Anderson (2012) and Bouaziz (2012) examined this relationship between IA size and firm performance and found a significant relationship. Kiabel (2012), in his study on internal auditing and performance of government enterprises: A Nigerian, suggested the need to have an adequate number of qualified IA staff after analyzing the practical implication of the study.

In another perspective, Mihret and Yismaw (2007) and Dominic and Nonna (2011) found significant correlations between the size of IA staffing and IAQ which allow IA contributions to organizational performance. They suggested that IA department

should be adequately staffed to enable them to discharge their functions more effectively.

However, in the study conducted by Christopher (2014) after analyzing the resource availability, it was found that greater part of the respondents (69.2%) considered that the IA department is adequately resourced. The result of the finding indicated that resource availability has a significant relationship with IAQ and overall performance of the university analyzed. As cited in Mahzan and Hassan (2015) in their studies on IAQ in 5s environment: Perception on critical factors, effectiveness and impact on organizational performance, Arenna and Azonne (2009) indicated that, among the most important factors for IAQ in fulfilling IA responsibilities, is a sufficient number of professional audit staff. Mahzan and Hassan (2015) further indicated that a sufficient number of IA staff and their participation in organizational operation is a strong indicator of organizational performance. Although their study shows a significant relationship, however, it suggested that more sufficient number of IA staff should be considered for effective organizational performance. Based on the above the following hypothesis is developed:

H3: There is a significant relationship between IA size and organizational performance.

3.5.4 IA Reporting Line and Organizational Performance.

In previous studies, Abbott *et al.* (2010) stated that reporting line affects the allocation of resources to IA and this will impact the organizational performance. Boyle (2012) found that reporting to external stakeholders affects internal auditor's judgement. Alic and Rusjan (2011) indicated a positive relationship between

reporting line in organizational structure and the entire organizational performance in their study on management relevance of internal audit. Mahzan and Hassan (2015) indicated that IA report is an output of IAQ. The result of their analysis in the study conducted on IAQ in 5s environment shows a significant relationship with the organizational performance. Other studies indicated a positive relationship between IA reporting lines with organizational performance include Morris, (2011); Gramling and Harmason, (2006); Ali, (2012); Ziace, (2014).

However, in a study conducted by Adeyemi *et al.* (2012) on factors affecting IAQ in Nigeria, an insignificant relationship of IA reporting with organizational performance due to ineffective audit committee independence was found. And in a related study, Ejoh and Ejom (2014), in their study, indicated that reporting line do not have a significant influence on financial performance in the colleges they analysed because internal auditors do not conduct their responsibility with greater degree of autonomy and independence. Another study conducted by Al-Shetwi *et al.* (2011) indicated an insignificant impact on the financial performance due to inadequate corporate governance with a series of structural defects in the organizations. The study suggests capital market authority (CMA) to formulate specific rules relating to IA function, for example IA reports should be presented in the company's general assembly (Board) against reporting to senior managers.

The position of internal auditor in an organizations' main organogram, that is the IA reporting line, certainly influences the quality of the audit. When internal auditors find themselves reporting only to the chief executive, the tendency of compromising audit findings is high. Based on the above, the following hypothesis is developed:

H4: There is a significant relationship between IA reporting line and organizational performance.

3.5.5 Timeliness of IA Report and Organizational Perform

In an empirical study conducted by Shukeri and Nelson (2014) in identifying the determinants affecting IA report lag in 49 Malaysian companies, a significant relationship between timeliness of IA report and firm performance was found. The study suggested for the inclusion of other variables like reporting relationship with audit committee to enhance wider views on timeliness of audit reports.

Previous studies, such as Sparks (2011) and Soh and Matinov-Bennie (2011) indicated a strong relationship between timeliness IA reporting and performance of organization. Reporting time should be integrated in the organizational policies and procedures. Considering the fact that timeliness of IA reporting is a very important dimension for realizing IAQ, which impacted positively on organizational performance, therefore, reporting IA findings later can lead to negative effects on IAQ and auditors performances (Sparks, 2011). According to Soh and Matinov-Bennie (2011), any audit report released late has little or no value and their contribution towards organizational performance is defeated (Shekeri & Nelson, 2014).

Several studies, Al-Shetwi *et al.* (2011); Kiabel, (2012); Al-Matari, (2013); Enofe *et al.*, (2013); Ejoh, (2014); Mbuti, (2014); Mahzan and Hassan (2015) and Modibo (2015) indicated a strong association between timeliness of IA report with efficiency of organization. Most of these studies were conducted on private organizations and

also in developed countries. Therefore, the need to have a study that employs the variable of timeliness of IA report in developing countries, like Nigeria, is quite imperative. Based on the above, the following hypothesis is developed:

H5: There is a significant relationship between timeliness of IA report and organizational performance.

3.5.6 Top Management Support and Organizational Performance.

Management support is one of the most crucial factor in the activities and effectiveness of IA which impacted positively to overall organizational performance. Cohen and Sayag (2010) indicated that the effect of management support is consistent with private or public organizations' effectiveness in their exploratory studies. The study further stated that even those determinants of IAQ such as IA competency, IA independence, IA size, and quality of work performed by IA are derived from the support of top management. Independence of IA, career development, hiring qualified and experienced staff, and allocating sufficient resources to IA department are all the results of decision made by top management.

In a related study, Christopher (2014) indicated that, for many public universities in Australia, IA function were carried out under dynamic structure and operational arrangement to realize good governance. Among the dimensions the study examined included organization members' support which shows a significant relationship between organizational members' support to the performance of public universities. Baharud-din *et al.* (2014) stated that top management contributes to the variation of IAQ and is obviously very significant in influencing organizational performance because any negative change in the factors that affects those elements will give a

significant negative change in the IAQ. This shows that the variable of IAQ such as IA competency, IA independence, IA size, and quality of work performed by IA may not be strong enough to have any significant influence to the overall effectiveness of an organization. Badara and Saidin (2013), in their conceptual study on IA effectiveness in public organizations, suggested for further research to validate their study by employing a moderating or mediating variable in order to strengthen the relationship between the two constructs.

Piskar (2004); Hutchinson and Zain (2009); Mihret (2010); Ziace (2014); Alzeban and Gwilliams (2014); Fareedmastan, *et al.* (2015) and Mahzan and Hassan (2015) found a significant relationship between the constructs of the study, while Al-Shetwi, *et al.* (2011); Kiabal (2012); Enofe, *et al.* (2013) and Ojong and Ekponta (2014) indicated an insignificant relationship. To keep in line with relevant literature and to test the hypothesis from the empirical postulations, the following hypothesis is developed:

H6: There is a significant relationship between top management support and organizational performance.

3.5.7 Top Management Support and IA Competency to Organizational Performance.

Internal auditing profession has long been gaining increasing prominence in the governance processes considering its role in achieving the organizational performance (Cohen & Sayag, 2010). On the other hand, top management support represents a key factor for the success of almost all programmes and process within organizations including IA. Management acceptance of and support for IA function

is considered as a critical success factor to IAQ in improving organizational performance (Cohen & Sayag, 2010).

For efficient and effective internal auditing, there should be strong management support which will ensure internal auditors possess appropriate skills, knowledge, and experience (Al-Zeban & Gwilliams, 2014). The level of training, education, and experience as well as the level of professional qualification influences the IAQ (Al-Twajry *et al*, 2004). These attributes are accorded the support of top management for maintaining appropriate responsibilities and service delivery to enhance the performance of an organization. A competent internal auditor could be an asset for ensuring public confidence in the entire organization (Omar & Abu Bakar, 2012; Radu, 2012; Badara & Swaidin, 2013). This study will attempt to examine the relationship that exists between top management support and IA competency and see how both would influence organizational performance.

Several studies were conducted to examine the relationship of top management support and IA effectiveness (Cohen & Sayag, 2010; Unegbu & Kida, 2011; Ussahawaritchakit & Intakhan, 2011). In a study conducted by Alzeban and Sawan (2013) on the role of IA function in the public sector context in Saudi Arabia, it was stated that management support for IA departments can secure efficient staff and provide them with training and development to meet the required competency needed by the organization. The findings of the study indicated a positive and significant relationship between top management support and IA competency towards organizational performance. From the above studies, management support is

highly needed for achieving IAQ which complements an effective organizational performance.

However, Enofe *et al.* (2013) argued that elements of IAQ such as IA competency, size of IA, and quality of work performed by internal auditors does not have a positive and significant influence on performance in Edo State (Nigeria). Lack of efficient training and conducive environment for internal auditors to exercise their responsibilities are major setbacks faced by internal auditors. They suggested that the training of IA personnel should be allowed to attend top management meeting in order to be aware of policies affecting the organization. Their study indicates that internal auditors' competency typically involves the development of specialist expertise (Mahzan & Hassan, 2015). Moreover, support from top management has a direct link to the realization of IA competency (Cohen & Sayag, 2010). Therefore, the study conducted by Enofe *et al.* (2013) should have employed the variable of top management support in their model of study accordingly. Based on the above, the following hypothesis is developed:

H7a: Top management support moderates the relationship between IA competency and organizational performance.

3.5.8 Top Management Support and IA Independence to Organizational Performance.

The evolving and expanding role of internal auditing in organizations represent a key organizational governance mechanism and consulting service. This unique role of risk management and consultancy services to management places internal auditors in a conflict situation in which their ability to exercise true independence and objectivity raises a lot of questions (Christopher, 2014). In addition, IA is also

expected to assist management to achieve accountability and integrity as well as to improve the implementation of organizational operations. It is also expected to develop confidence among the stakeholders. To achieve these fundamental attributes, IA must be independent from all decision factors involved in the organization (Christopher, 2014). IA should be allowed to exercise its responsibility without management interference.

“Internal audit independence is the freedom from condition that threaten the ability of the internal audit activity to carry out internal audit responsibility in an unbiased manner. To achieve the degree of independence necessary to efficiently carry out responsibility of the internal audit activity, the chief audit executive has direct and unrestricted access to senior management and the board. This can be achieved through dual – reporting relationship” (IIA, 2012).

Under this scenario, this study attempts to examine the moderating effect of top management support with IA independence for organizational performance. Previous studies were conducted to examine this relationship (Mihret & Yismaw, 2007; Ahmad *et al*, 2009; Cohen & Sayag, 2010; Alzeban & Gwilliams, 2014; Alzeban & Sawan, 2013; Badara & Saidin, 2013; and Baharud-din *et al*, 2014). In the study conducted by Alzeban and Gwilliams (2014), it was found that top management support is a very vital determinant of IAQ and has a great and positive impact to IA independence that contributes towards effective performance of an organization.

Independence is very essential for any professional who provides professional services and professional judgement. Without independence of mind and appearance, the IA loses its value and credibility, and their opinion becomes meaningless (Endayah & Hanefah, 2013). This suggests that support from top management to IAF provides a signal of the role and value of internal auditing in the organization.

Managerial support empowers IA department to discharge its responsibilities efficiently (Alzeban & Gwilliams, 2014). In the recent study conducted by Baharuddin *et al.* (2014) on the factors that contribute to the effectiveness of IA in public sector, IA independence and management support had a positive and significant relationship. They indicated that a successful IA department generally depends on management support strength. Management style and organizational structure determines the independent IA. This provides the assurance services and consultations to the organization for effective and efficient utilization of organizational resources (Baharuddin *et al.* (2014). Thus, management set out the overall policy setting that enables IA to gain authority and independence in the organization and, at the same time, gain auditees' acceptability (Mihret, 2010).

However, a study conducted by Fareedmastan, *et al.* (2015) on the effectiveness of IA in improving organizational performance: case study of Wollo university, Ethiopia indicated an effective contribution of IA to the performance of the university. The study employed quantitative and qualitative methods to analyze the variables of IA competency, IA independence, audit committee, IA resourcing, and management support. This is attributed to a lack of audit committee, poor resourcing, and no independence of IA. The study suggests improving organizational performance through assurance of IA independence, sufficient resources, competent audit personnel, and establishment of audit committee. Top management support is a common problem among IA departments in developing countries. That is why their contributions towards organizational performance is generally ineffective. The need to conduct in-depth research in this area is quite important. Based on the above, the following hypothesis is developed:

H7b: Top management support moderates the relationship between IA independence and organizational performance.

3.5.9 Top Management Support and IA Size to Organizational Performance.

As the size of organizations differs in their vision and mission, equally the IA size varies too. Therefore, comparing the IA size with one and another in an organization in determining IAQ can be misleading (IIARF, 2004). In another perspective, top management considers a variety of factors in determining the size of the IA department in their organization. That is on whether the investment, for example resourcing the department, yields a positive result. There is no doubt IA function needs to be properly equipped with sufficient human and material resources to enable it to carry out the required responsibilities for organizational effectiveness (Alzeban & Gwilliams, 2014).

Previous studies suggests that IAQ is likely to be higher when there is enough number of IA staff (Brierley, 2001; Brierley, 2003; Ali *et al*, 2007; Arenne & Azzone, 2009; Mahigeta, 2008; Ahmad *et al*, 2009; Obeid, 2010). For instance, a study conducted by Ali *et al*. (2007) on IA in the State and Local Government of Malaysia indicated that the major problems hindering effective IA performance towards improving organizational performance is the severe shortage of IA staff. Ahmad *et al*. (2009) shows that a limited number of IA staff is among the reasons for ineffective performance in the Malaysian public sector. The study further found that, with the support from top management, both staffing and resource allocation would be improved. The two studies above could have improved on their findings by employing a variable of top management support.

Arena and Azzone (2009) stated that the primary condition for IAQ to enable it to fulfil its responsibilities towards organizational performance is to acquire enough and well-equipped professional audit staff. Alice and Rusjan (2011) supported the study by indicating that a sufficient number of IA employee participation is a stronger indicator of organizational objectives. Alzeban and Gwilliams (2014) stated that management support empowers IA department through the provision of sufficient resources to enable it to carry out its duties efficiently. With management support, IA department can secure available staff and have access to training and development (Cohen & Sayag, 2010; Alzeban & Sawan, 2013).

Alzeban and Gwilliams (2014) further indicated that top management support has significant influence on IA size, from the survey they conducted on 203 internal auditors in Saudi Arabia public sector organizations. IA is required to acquire the right number of qualified members of staff. This can only be achieved by support from top management (Cohen & Sayag, 2010). Al-Twaijry, (2003) indicated that management support to IA in terms of resourcing and budgetary allocation is very significant in determining IAQ. Management support for IA is so vital in ensuring that IA have resources needed to meet their responsibilities (Christopher, 2014). Ejom and Ejoh (2014) revealed that the activities and other operation in the colleges they analyzed were initiated by top management. However, they found that IA departments in the institutions are not sufficiently staffed and do not perform their duty independently. The overall finding revealed that IA in the institutions they analyzed have no significant contribution to the performance of the institutions. Under this situation, top management intervention is very critical.

In a recent study conducted by George *et al.* (2015) shows that top management that is associated with the IA size and IAQ is significantly related with organizational performance. The Institute of Internal Auditor Research Foundation (2004) stated that management attitude towards IA can have positive effects on the IA behavioral attitude towards their responsibilities. Mahzan and Hassan (2015) supported the views where they stated that senior management support and IA resourcing were viewed as a set of interdependent processes for achieving organizational performance.

In a study conducted by Modibo (2015), the result of the study showed that IA unit of tertiary institution in Adamawa state, Nigeria, is not effective because they lack independence and they are in short supply of adequate staff. This indicated that the management of public tertiary institution especially those in developing countries have to ensure appropriate support to IA departments to enable it to meet the organization objectives. Based on the above, the following hypothesis is developed:

H7c: Top management support moderates the relationship between IA size and organizational performance.

3.5.10 Top Management Support and IA Reporting Line to Organizational Performance.

The level of interaction that exists between the audit committee, top management, and internal auditors suggest a solid constructive relationship which allows the audit committee and top management to expect reasonable assurance over IAF in an organization (Abbott & Parker, 2010). Specifically, ISPPIA, (IIA, 2004) stated in section 1110:

“Appropriate reporting lines are critical towards achieving the independence, objectivity and overall organizational performance for internal audit to effectively discharge its obligation”.

The reporting line should take a form of functional reporting to audit committee of the Board or Council and administratively to the chief executive of the organization in order to secure appropriate support to accomplish IA routing activities. The support from top management to ensure IAQ should include positioning of IA function within the organizational structure that will facilitate effective reporting relationships between the parties involved. With this support, internal auditors can obtain sufficient resources and authority that will facilitate efficient reporting relationships within the organization (Cohen & Sayag, 2010; Alzeban & Sawan, 2013). For effective organizational performance, top management should commit and provide prompt response to audit recommendation (Saran & De Beelde, 2006).

A previous study conducted by Adams (2000) indicated that there are significant internal contextual variables such as reporting process and management attitude to reporting which are likely to have influence on the extensiveness, quality, quantity, and completeness of reporting. This, ultimately, results in efficient performance on organizational objectives. Similarly, a research study submitted to IIA by Chair (2003) suggested that audit committees should have more concern in IA reports and recommendations. It further suggests that top management pays more attention to some strategic issues that will improve the monitoring and compliance in the corporate governance. Specifically, the result of the study revealed that the IA scope should be extended to address strategic issues that would contribute to organizational effectiveness.

Rupsys' (2005) study on IA reporting relationship: the analysis of reporting lines shows that reporting lines of IA activity are generally not organized and often very conflicting. Mihret and Yesmew (2007) revealed that the distribution of audit reports in public institutions is only limited to the chief executive, as such the recommendations are not given appropriate attention and no mechanism provided to follow-up the recommendations. Therefore, the result of their study indicated a significant influence of management support to IA reports to achieve organizational objectives. The study further suggested that IA should have enough status in the organizational structure to allow it to have better access to top management in order to create an atmosphere of objective and unbiased reporting.

In another study, Boyle (2012) indicated that report types and reporting relationship has significant effects on internal auditors' judgement and risk assessment. The finding further shows significant and potential benefit to the organization. Therefore, IA should be appropriately structured and positioned to enable it to discharge its responsibility efficiently, given that IAQ plays a crucial role in the entire governance process (Gramling & Hermason, 2006; Abbott & Parker, 2010).

In a recent study conducted by Christopher (2014) on internal audit: Does it enhance governance in the Australian Public University sector, it was revealed that functional reporting line to the audit committee of the university existed and, with this, the reporting relationship IA secured independence. The study further revealed that management provides positive decisions that will enhance IA independence and integrity by positioning IA strategically in the organizational structure. Mahzan and Hassan (2015) supported this finding by emphasizing that IAQ is largely associated

with effective reporting relationships. Based on the above, the following hypothesis is developed:

H7d: Top management support moderates the relationship between IA reporting line and organizational performance.

3.5.11 Top Management support and Timeliness of IA Report to Organizational Performance.

The success of IAQ largely depends on top management support. Management attitude towards the activities of IA has significant influence on organizational performance (Alzeban & Gwilliams, 2014). The influence of management support on IAQ is consistent with private or public organizations' effectiveness in the exploratory studies conducted by Cohen and Sayag (2010). The study further stated that even those determinants of IAQ such as IA competency, IA independence, IA size, and quality of work performed by IA are derived from the support of top management. Further to this, independence of IA, career development, hiring qualified and experienced staff, allocating of sufficient resources, and even the reporting pattern of IA activities are associated with managerial decision. Therefore, timeliness of IA report is directly associated with organizational management support since internal auditors, on the other hand, assists top management in maintaining effective internal control in the organization. These dual responsibilities between the management and internal auditors assist greatly in realizing effective and timely reporting of IA findings and recommendations in the organization.

Timeliness of IA report is considered as one of the critical factors for management decision in conducting audit processes (Alzeban & Gwilliams, 2014). In a survey conducted by IIA, they measured the variables of IA function quality such as IA

competency, quality of field work, and IA independence contributions to financial statement in 292 private firms. The findings indicated that a delay in the expected time of audit reporting process (time lag) have potential consequences to organizational performance.

In a study conducted on examining the factors that are associated with IA report, Mahzan and Hassan (2015), after analyzing a total 300 reputable private firms in Malaysia, found that audit report lag is directly associated with audit type, audit opinion, and organizational members' support. Timeliness of audit reports permit effective decision making while the contrary results in uncertainty and loss of confidence among the end users (Mahzan & Hassan, 2015).

Prominent contributors to the literature of timeliness of IA report consists of Che Ahmad and Abidin (2008); Mbuti (2014) and Almosa and Alabbas (2008). Timeliness of IA report is a critical factor that influences organization performance. Top management can play a greater role in managing the periods of audit reports (Mbuti, 2014).

Some recent studies such as Mahzan and Hassan (2015); Mbuti (2014); Alzeban and Sawan (2013); Adeyemi *et al.* (2012); and Al-Matari (2013) found a significant relationship between the variable of timeliness of IA report and management support to the organizational performance. Enofe *et al.* (2013) and Ejoh (2014) indicated that timeliness of IA report has a significant association with top management in achieving organizational performance. Typically, top management has a significant association between internal auditor's timeliness in reporting audit findings and

recommendations. Mahzan and Hassan (2015) stated that internal auditors their reports made available to management promptly and any delay may cause the report to lose its substance and credibility. Top management, on the other hand, plays a greater role in achieving the desired objectives of an organization. Based on the above, the following hypothesis is developed:

H7e: Top management support moderates the relationship between timeliness IA report and organizational performance.

The research model below shows the relationship between the constructs of the study and the hypotheses developed.



RESEARCH MODEL AND HYPOTHESES DEVELOPED

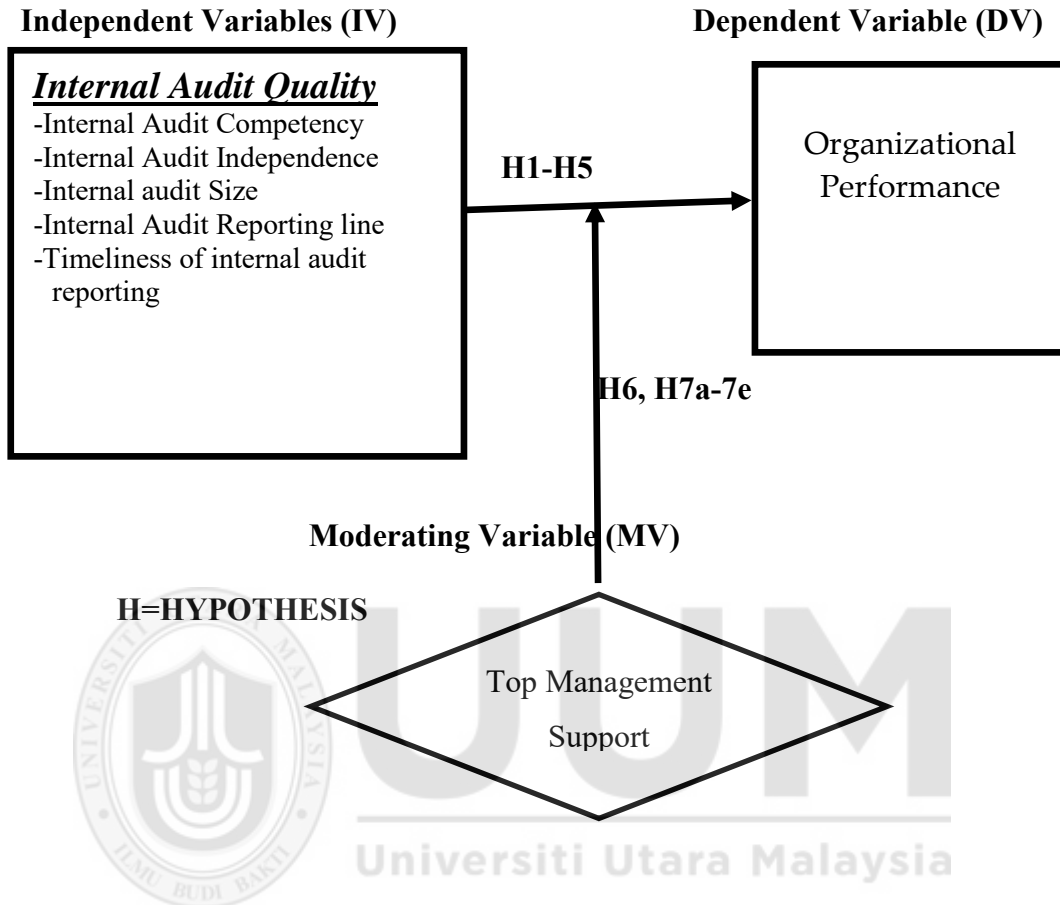


Figure 3.2

Research model showing the hypotheses developed in relationships between the independent variables and dependent variable and the role of top management in moderating the relationships.

Thus, seven hypotheses were developed for empirical testing and validation which are concerned with the relationship between the independent variables and dependent variable with a moderating variable of top management support. Below is the list of proposed hypotheses developed from the above research model:

- H₁** There is a significant relationship between IA competency and organizational performance.
- H₂** There is a significant relationship between IA independence and organizational performance.

- H₃** There is a significant relationship between IA sizes and organizational performance.
- H₄** There is a significant relationship between IA reporting line and organizational performance.
- H₅** There is a significant relationship between timeliness of IA report and organizational performance.
- H₆** There is a significant relationship between Top management support and organizational performance.
- H_{7a}** Top management support moderates the relationship between IA competency and organizational performance.
- H_{7b}** Top management support moderates the relationship between IA independence and organizational performance.
- H_{7c}** Top management support moderates the relationship between IA size and organizational performance.
- H_{7d}** Top management support moderates the relationship between IA reporting line and organizational performance.
- H_{7e}** Top management support moderates the relationship between timeliness of IA report and organizational performance.

3.6 Research Design

A research design is a guiding plan that describes the techniques and methods for gathering and analyzing the needed data (Zikmud, 2000). Research design is an action plan for going from a preliminary set of questions to be answered to a conclusion. Research design is classified into three main categories; Survey/non-experimental design, which comprises interviews and questionnaires. Experimental design is carried out in laboratories and historical design which explores the utilization of secondary data and observation respectively (Zikmud, 2000). Therefore, in this study, it will focus on describing the characteristics of the population that is the Nigerian federal universities.

The descriptive design is to be considered in order to describe the features of the designated variable in a given circumstance (Sekaran & Bongie, 2010). In this regard, the study will focus on the IAQ as the predicting variable and organizational performance as the criterion variable. This survey method will be more suitable to achieve the desired goal. Therefore, the research setting is going to be cross-sectional which involves collecting data at one time to be able to meet the requirement of the study's objectives (Cavana, Dalahaye & Sekaran, 2001). The benefits that may be derived from this design are cost savings and a reduction of time consumed. Hypotheses were formulated to further explain specific information, knowledge, and analysis of the nature of relationship among the variables of IAQ, with organizational performance and top management support as moderating variable. The hypotheses formulated are expected to provide explanation of their relationship as statistically significant or not. Therefore, this study uses a similar approach as it is the best in addressing the objectives of this research.

3.7 Population and Sample Size

3.7.1 Population of the Study

In the study conducted by Sekaran and Bougie (2010), it was described that a population of the study is the entire group of people or things that the researcher finds interesting to study. Nigerian federal universities are considered as the population for this study because of the uniqueness of their services and operations. They have common funding, constitution, and laws establishing the universities' policy, structure, and functions. The National Universities Commission (NUC), as the Nigerian universities regulatory and supervising agency, stated that there are forty (40) federal universities across Nigeria. (See appendix B).

The Nigerian federal universities are considered to constitute the population of the study on the grounds that Creswell (2003) described 'population' as a group of individuals or organizations who have the same characteristics and other common features that the researcher can identify and study. Therefore, the population of this study satisfies the requirement on the basis of NUC (2014) data which indicates that there are forty (40) Federal universities across the thirty-six (36) states and Abuja in Nigeria. All these universities have common funding, structure, and operations (see appendix B).

The study considered IA staff at senior level in each of the universities and served as respondents. The researcher specifically paid attention to individuals in the audit department of the respective universities that have direct bearing with audit functions. This is to avoid any discrepancy or similarity amongst the respondents. Auditing has clearly defined mandates and every staff in the audit department perform the assigned audit responsibility in line with mandate. Therefore, the researcher ensured that items of the questionnaire reflect the exert audit functions and service being provided in the universities to avoid personal opinion of the respondents. In addition, the researcher clearly explained to the respondents during the administration of the questionnaire that what is actually obtained should be reflected to enable generalization of the findings.

3.7.2 Sample Size

A sample is a set of participants derived from a group or individual of a whole population for the purpose of conducting a survey (Shehu, 2014). That is, it is a subset of the population for the research process. It represents part of the entire

population of interest to be studied (Shehu, 2014). It can further be referred to as a sub-collection that is picked from the population of interest. Therefore, sampling is the process through which a group of representative elements or individuals are selected from a given population (Shehu, 2014).

In this study, 600 internal auditors from forty (40) Nigerian federal universities were considered as the sample of the study in order to have a comprehensive and wide range of responses. The 600 internal auditors were drawn from universities nominal roll, referred to as the list of staff members from each university submitted to NUC. The list was extracted from the NUC databank for the purpose of the study. With this, the scope of the study can be appropriately managed in the data collection process using personal contact and electronic mediums. From the forty (40) federal universities that represent the whole population of the study, senior internal auditors with salary scale ranges from consolidated salary structure of 07-15 are selected from each of the federal university as respondents. In Nigerian federal universities, staff on salary grade level 07 – 15 are considered as senior staff. Therefore, in this study, all internal auditors within that range are the target respondents. For the purpose of this study, Krejcie and Morgan's (1970) table is used in determining sample size. Therefore, according to Krejcie and Morgan's (1970) sample determination, 234 internal auditors were selected to serve as the sample of the study. However, to minimize error in sampling and to take care of non-response rate issue, purposive sampling technique is employed. The sample size of 234 internal auditors indicated in the Krejcie and Morgan table was multiplied by two (Hair; Wolfinbarger & Ortinall 2008). Therefore, this lead to 468 total number of questionnaires administered.

3.8 Sampling Technique

Purposive sampling technique is employed in the study for the data collection process. This sampling technique is a non-probability sample that is selected based on characteristics of the population and the object of the study. It is normally referred to as subjective, judgmental, or selective sampling (Asheley, 2017). The purposive sampling technique, also called judgment sampling, is the deliberate choice for an informant due to the qualities the informant possesses. It is a non-random technique that does not need underlying theories or a set number of informants. Simply put, the researcher decides what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience. It is very useful in situations when you need to reach a targeted sample quickly and where sampling for proportionality is not the main concern but the participants have common characteristics. Purposive sampling is a non-probability technique that involves the conscious selection by the researcher of certain people to include in a study. Participants are selected because they have particular characteristics that are of interest to the researcher. For example, they have had the experience or there are certain aspects of their lives in which the researchers are interested. This technique was adopted for this study because the entire population has common characteristics. All the participants are from Nigerian federal universities with common characteristics. The audit personnel that occupy senior positions have satisfactory level of experience in audit functions in the 40 Nigerian federal universities and are the participants of the study.

3.9 Unit of Analysis

The unit of analysis represents the respondent being studied in a particular research. Like researches in social sciences, it has the following types of unit of analysis as individual, organization, and even group (Creswell, 2012; Shehu, 2014). The target working population of this research is the Nigerian federal universities which is consistent with the problem statement of the study, research questions, and research objectives. Therefore, the unit of analysis of this research is the individual internal auditor from Nigerian federal universities being the most appropriate respondents for this research. An internal auditor in the context of this study is the person or employee entrusted with providing independent and objective evaluations of the organizations' financial and operational business activities, including its corporate governance. Additionally, an internal auditor in this study is also a person who evaluates the operational efficiencies of an organization and usually reports to the highest levels of management on issues affecting the organization. Finally, an internal auditor in this study is also a person who has the necessary prerequisite to discharge audit functions effectively in terms of qualifications, adequate experience, knowledge and skills. They generally possess professional membership from recognized professional bodies.

3.10 Data Collection Procedure

There are several ways or techniques for collecting data. This research will collect data through the distribution of questionnaires to respondents (Directors, Chief Internal auditors, Assistant Chief Internal Auditors, Principal Internal Auditors, Senior Internal Auditors and Higher Executive Officers-Audit) from all the selected Nigerian federal universities. In order to have the completed questionnaires returned

within the shortest time possible, the hand delivery and electronic mail system would be used so as to suite the peculiarity of the Nigerian university system.

Hand delivery and use of electronic media are considered most appropriate in order to avoid long time consumption (Sekaran & Bougie, 2010). Research assistants are employed to assist in questionnaire distribution and follow-up through physical contacts. Telephone and e-mail are employed to hasten the collection process from the selected samples. One of the advantages of this method, other than the quick response, is that the researcher can give additional explanation on items that need clarification by the respondents.

To ensure the response is valid and represents the university, the data was drawn from the respondents attached to audit departments in the selected universities. This is done based on the contents of instrument which has been designed based on audit functions available, personal opinion may not apply. The response provided by respondents reflects what is actually obtained in their respective universities. Moreover, audit quality functions as constructs have been considered. Therefore, the mean value of each aggregate addresses the issue of variation in the response by the respondents.

Based on the results of the t-test, the researcher can infer the variance using descriptive statistics for early and late respondents.

3.11 Techniques of Data Analysis

Descriptive statistics is employed in this study as a method of data analysis using statistical package for social science (SPSS) which is an established and user-friendly

software. Summary and the observation being made are presented in summary form (Shehu, 2014). The study will now examine the operationalization and measurement of the variables of the study.

3.12 Operationalization and Measurement of Variable

Operational definition is a specification of how a researcher intends to define or use and measure all the variables in the research and these variables are only limited or peculiar to that study (Creswell, 2012). The variables of measurement are adapted from previous studies.

Organizational Performance

Basic understanding about the determination of organizational performance is an important goal, especially crucial in recognizing how management shapes performance. Specifically, this study considers organizational performance as operational effectiveness which positively influences efficiency in the organization through various performance metrics such as financial, customer, internal process, learning, and growth. In essence, determination of actual organizational performance is relevant for practice and research because it constitutes the final objective of economic activities (Hamann *et al.*, 2013).

Organizational performance has been described by many scholars as the degree to which the organization has the capacity to address the needs of its stakeholders and its own requirements for survival (Griffin & Mahon, 1997). Griffin (2000) further argued that it is not necessarily linked to overall revenue or a high market share,

despite the fact that these may be realized as a result of completely accomplishing the described performance.

More specifically, this study sees organizational performance as the extent to which an organization achieves its given objectives and a set of pre-determined targets that are common to its mission and vision, which is referred to as Organizational performance (Kaplan & Norton, 1992). The term is measured by the following indicators adapted from Kaplan & Norton, 1992; Mihret (2010).

Additionally, organizational performance in this is also operationalized in this study based on the four perspectives as follows; first, the financial perspective of the balanced scorecard is defined in terms of – IA contribution on financial and non-financial management, cost effectiveness, and performance audit. Secondly, it is defined in terms of stakeholder’s perspectives – valuing IA contributions in organizational processes. Thirdly, in terms of internal organizational processes perspectives – existence of defined purpose and authority to internal audit, audit guide and manuals, and utilization of auditor’s knowledge and technical competency. Fourthly, in terms of learning and growth perspectives it is seen as – consistency of operating procedures. IA ensures that laws, regulations, and policies establishing the University are appropriately complied with. This is because IA contributes to academic excellence through its objective assessment in performance audit.

IA findings and recommendations provide practical and cost-effective corrective measures for effective performance. IA ensure that operating procedures are consistent with learning and growth objectives of the University. Auditees regard IA

as value-adding in the university. Stakeholders regard IA as agents that influences positive change and continues improvement to the university's processes and accountability. The university accepts and utilizes the knowledge of IA to improve the organizational processes and strategic objectives.

This can be elaborated as the extent to which a university's operations create stakeholder value through the arrangement of effective and efficient organizational structures and processes which are centered towards innovation as well as developing a culture for continuous learning and organizational growth. Again, this takes into cognizance the perceived improvement in both financial and non-financial facets of performance because they are better indicators of future financial performance instead of purely accounting measures (Banker, 2005).

This study used BSC (Kaplan & Norton, 1992) on a 7-point Likert scale, because it captures both financial and non-financial dimensions of organizational performance which should both be included in organization performance investigation (Kaplan & Norton, 1992). This method of measuring organizational performance has also been recommended because the strategic goal of an organization deals with the future direction. A combination of financial and non-financial measures is a better indicator of future organizational performance than accounting measures which usually reflect past performance (Bentes *et al.*, 2012). Equally important is their significance in motivating and evaluating managerial performance (Banker, Potter, & Srinivasan, 2005).

Again, Ray, Barney and Muhanna (2004) concluded that, against the difficulties associated with testing the RBV using extensive measures of performance, researchers can utilize indicators specifically connected with the resources under examination. Although there are numerous measurements of organizational performance, the choice of the most appropriate should be made by the researcher and justify the motive behind such decisions (Richard, Devinney, Yip, & Johnson, 2009).

Finally, some modifications were made on the measurement scale to make it more suitable for respondents to understand. This modification was made by adding the word “My University” and “In this University” as the case may be because the original scale was developed with a more direct statement such as “Significant improvement in financial efficiency” and “Reduced amount of customer complaints significantly”. The “customer” was replaced by “stakeholder”. The modifications were made in line with an expert’s suggestions. The item is measured by the following indicators adapted from Kaplan & Norton(1992); Mihrat (2010) in terms of:

- i. Financial efficiency.
- ii. Significant return on asset.
- iii. Significant reduction in service costs.
- iv. Academic excellence.
- v. Established policy and procedure.
- vi. Practical and cost-effective corrective measures.
- vii. Operating procedures which are consistent with learning and growth objectives of the institution.

- viii. Reduction in terms of the amount of average mistakes in its procedures.
- ix. Significant increase in physical facilities.
- x. Supporting new service delivery.
- xi. Significant improvement in prompt response to stakeholder's requests.

IA Competency:

According to the 2010 IIA Global IA Survey, the definition for IA competency is skills that are required to perform a certain task. These skills are made up of educational qualification, experience, knowledge, and professional certification/proficiency of the internal auditor. The item is measured by the following indicators adapted from Alzeban and Gwilliams (2014); Mihrat (2010).

- i. Internal auditor's skills.
- ii. Internal auditor's working manuals.
- iii. Proficiency and professional knowledge of internal auditors.
- iv. Quality of IA work.
- v. Training.
- vi. Professional development programme.
- vii. Availability of experienced IA staff.

IA Independence:

IA independence is being free from interference from interest groups that can threaten the objectivity of IA findings and recommendations. The IIA (2002) practice advisory defined IA independence as the ability of internal auditors to execute their duties without interference from top management, avoiding conflict of interest, having direct access to chief executive and the council on decisions affecting the organization and, at the same time, having access to all required records

and documents during the auditing process. The item is measured by the following indicators adapted from Mihret (2010); Alzeban, & Gwilliams (2014).

- i. Clarity of IA function and authority.
- ii. Unrestricted access to document and records .
- iii. Level of independence in IA activities .
- iv. Reporting line with the top management and the audit committee of the council .
- v. Conflict of interest in IA reporting line.
- vi. Appointment, promotion and dismissal of Chief Audit Executive.
- vii. Level of interference by senior management in audit responsibilities .
- viii. Having direct access with Audit Committee, Chief Executive and Top Management.
- ix. Quality of internal auditor.
- x. Intimidation of IA staff.

IA Size:

IA size is the number of human resources that the IA staff needs to perform audit activities to achieve the organizational objectives. (Alzeban & Gwilliams, 2014).

The item is measured by the following indicators adapted from Mihret (2010):

- i. Number of staff.
- ii. Scope of IA activities.
- iii. Alternative source of IA staff (outsourcing).
- iv. Segregation of duties employed in the department.
- v. Budgetary provision to IA unit.
- vi. IA work plan.
- vii. Management consideration of audit staff.

- viii. Sufficient coordination of audit activities.
- ix. Budgetary provision to internal IA department is adequate regardless of its size.
- x. Budgetary provision to IA department is based only on the number of audit staff.
- xi. Management is not sufficiently aware of the need of IA as demonstrated by the small budget assigned to IA.
- xii. IA department is large enough to successfully carry out financial and non-financial activities of the university.

IA Reporting Line:

IA reporting line is a medium in which audit findings and recommendations or opinion, such as audit reports, are communicated to top management and the audit committee of the Board/council. (International Standards for the Professional of Internal Auditing-Standards (ISPPIA), 2012) Standard; 1320. The item is measured by the following indicators adapted from Mihret (2010):

- i. Reporting relationship with CEO and the Council.
- ii. Implementation status of audit findings and recommendations.
- iii. IA status in the main organizational structure or organogram.
- iv. IA interaction with the CEO/Council.
- v. IA reporting quality.
- vi. Organizational independence.
- vii. Response to audit reports and audit findings.
- viii. Involvement of auditees in reporting process.

Timeliness of IA Report.

Timeliness of IA report is the extent to which IA report meets the specific period to issue the audit reports to the organization's audit committee and the chief executive (Al-Matarneh, 2011). The study further stated that full scope of public audit in government institutions are generally complex and that may affect time and timeliness of those reports. Therefore, timeliness is to be considered from dual perspectives. It may be from IA or from the organization's decision makers.

The item is measured by the following indicators adapted from Mihret (2010) and Mahzan and Hassan (2015):

- i. Scope of the audit coverage.
- ii. Size of the organization.
- iii. Report content message (quality/adverse report).
- iv. Managerial competency to address audit findings.
- v. Audit environment .
- vi. Sense of accountability.
- vii. Managerial attitude towards audit reports.
- viii. Effective utilization of audit staff.
- ix. Clarity of audit reports.
- x. Documentations of audit findings.
- xi. Report content (favorable/unfavorable report) largely determines the timeliness of IA report response and implementation by the chief executive.

Top Management Support

Top management support is the process and willingness of the chief executive and other top management to provide the necessary resources and authority to IA department for effective organizational performance. It is the process of giving independence for internal auditors work, setting the right size and qualified staff, having access to top management and the board's audit committee, career development, involving chief audit executive in some strategic decisions, and allocating enough resources for IA activities (Cohen & Sayag, 2010). The item was measured by the following indicators adapted from Cohen and Sayag (2010); Alzeban and Gwilliams (2014).

- i. Resourcing IA department.
- ii. Involvement of IA in the strategic plan of the institution.
- iii. Response to IA findings and recommendations .
- iv. Level of staff development and training to IA staff.
- v. Accessibility and interaction with top management.
- vi. Accessibility to records and information.
- vii. Position of IA department in the institutions structure/organogram.
- viii. Allowing IA in the strategic committees meetings in the institution.
- ix. Value and respect of IA from management.
- x. The university accepts and utilizes the knowledge of IA to improve the organizational processes and strategic objectives.

Table 3.1

Summary of Measurement of Variables of the Study

S/N	Variables	No. of Items	Source/Adapted
1.	Organizational Performance (OP)	11	Kaplan, R. S., & Norton, D. P. (1992). Mihret D. G. (2010).
2.	Internal Audit Competency (IAC)	7	Alzeban and Gwilliams (2014); Mihret, D. G. (2010).
3.	Internal Audit Independence (IAI)	10	Mihret (2010); Alzeban, A., & Gwilliams, D. (2014).
4.	Internal Audit Size (IAS)	12	Mihret (2010)
5.	Internal Audit Reporting line (IARL)	8	Mihret (2010)
6.	Timeliness of Internal Audit Report (TIAR)	11	Mihret (2010) and Mahzan and Hassan (2015)
7.	Top Management Support (TMS)	9	Cohen and Sayag (2010); Alzeban, A., & Gwilliams, D. (2014).

3.13 Pilot Study

A pilot study was conducted to check the reliability as well as validity of the questionnaire instrument (Zikmund, 2000). It is considered as experimental where a small scale of the study is conducted before the final study. A pilot study was conducted to achieve several strategic objectives. Firstly, to test the validity and reliability of the study instrument. Secondly, to have a comprehension of the real condition of the final study which allows the researcher to anticipate and rectify the potential problems during the final study and many more. However, the major concerns of the pilot study is to test the reliability as well as the validity of the research instruments. The validity of the measuring instrument refers to the extent to which the instrument is measuring what it is supposed to measure while the reliability of a measure represents the extent to which a measuring instrument is free from error and is, thus, stable as well as consistent over period of time and across various items in the scale (Sekaran & Bougie, 2010).

Therefore, a pilot study is a process of conducting a mini research with a view to assess the items' structure, composition, and internal consistency. That is the instrument or questionnaire the researcher intends to administer. It is the process of testing the reliability as well as the validity of the research instruments intended to be used in the full scale of the research. Normally, after the pilot study, the researcher anticipates some comments and observations from the target respondents. The observations and comments made by the experts and experienced personnel led to the sentence restructuring and repositioning of some items in the questionnaire. The researcher uses such comments to review the items to be relevant and capable of helping the researcher achieve the objectives of the study. The researcher measures the internal consistency to make sure the items in the instrument are reliable. The results of the pilot study will give a direction for the full scale research. In this study, the pilot study was conducted with a view to assess items' structure, composition, and internal consistency. Below is the result of the study.

3.13.1 Pilot Study Result

3.13.2 Characteristics of the Population

The pilot study was carried out using a sample of 40 employees of IA unit from federal universities in Nigeria. The sample used comprised of 33 male and 7 female respondents with a mean age of 3.55 (SD = .677). The purpose of the study is to assess the psychometric properties of the questionnaire.

However, Table 1.1 depicts the demographic characteristics of the respondents and the findings reveal that males were the majority of the respondents with 82.5% response rate. In addition, respondents aged 50-59 were the majority and accounted for 57.5% participation rate, indicating that most of the respondents are relatively

old. Similarly, respondents with 20-29 years of service were the majority accounting for 55%, indicating that respondents have adequate years of experience and a majority of the respondents occupy positions of chief internal auditor accounting for 50%. In terms of qualification, a majority of the respondents (82.5%) hold master degrees and 72% are ANAN members.

Table 3.2
Demographic Characteristics of the Respondents

Variable	Frequency	Percentage
Gender		
Male	33	82.5
Female	7	17.5
Age Group		
30-39	3	7.5
40-49	13	32.5
50-59	23	57.5
60 and above	1	2.5
Number of years in service		
1-9	6	15.0
10-19	11	27.5
20-29	22	55.0
30 and above	1	2.5
Rank		
Chief Internal Auditor	20	50.0
Director Internal Audit	11	27.5
Principal Internal Auditor	9	22.5
Highest qualification		
NCE/Diploma	2	5.0
BA/BSc/HND	5	12.5
Masters	33	82.5
Membership of professional body		
ICAN	8	20.0
ANAN	29	72.5
CPA	3	7.5

3.13.3 Instrument for Pilot Study

The instrument employed in the study consists of 2 sections. Section 1 covers the demography that consists of gender, age, number of years in service, designation, qualification, and membership of professional bodies. Section 2 covers the variables with seven dimensions that consist of Organizational Performance (Org) 1-6, Internal audit Independence (IAI) 1-6, Internal audit Competency (IAC) 1- 6, Internal audit Reporting Line (IARL) 1- 7, Internal audit Size (IAS) 1- 6 and Top Management Support (TMS) 1- 7.

The instrument has a total of 47 items with 5 Likert scale that ranges from strongly disagree as 1 to strongly agree as 5 for the first four constructs. However, other constructs have a scale that ranges from always as 1 to never as 5.

3.13.4 Data collection for Pilot study

Hand delivery and the use of electronic media are considered as most appropriate in order to avoid long time consumption (Sekaran & Bougie, 2010). Research assistants are employed to assist in questionnaire distribution and follow-up through physical contacts. Telephone and e-mail are employed to hasten the collection processes from the selected sample. One of the advantages of this method, other than the quick response, is that the researcher can give additional explanation on items that need clarification by the respondents.

Data was collected from the target respondents during the national conference of Heads of IA department of Nigerian Universities in Lagos, Nigeria in the month of November, 2015, using a sample of convenience in which available respondents that attend the conference filled the questionnaires.

3.13.5 Results for Reliability and Validity of the Pilot Study

Reliability (Internal Consistency)

The data generated from the study was managed and processed using SPSS software version 20. At the beginning, reliability of the instrument was assessed using Cronbach's Alpha. The internal consistency of the instrument was found to be .912 indicating adequate internal consistency and satisfied the minimum value of .70 (Nunnally, 1978). Individual internal consistency of the respective constructs show that all items have satisfactory level of internal consistency.

Validity of the Construct in the Pilot Study

Construct validity was established through exploratory factor analysis (EFA). Items correlated on at least .3 with Kaiser-Meyer-Olkin measure of sampling adequacy .407, .698, .581, .332, .503, .393 and .503 for organizational performance, respectively, above the recommended value of .5 (Hair 2010). The Bartlett's test of sphericity were also significant. However, the communalities and anti-image diagonals correlation matrixes were all above .5. Further analysis confirmed that most of the items shared some common variance with other items. Based on the overall indicators, factor analysis was carried out with no items deleted.

Principle components analysis was used in the process with a primary purpose of identifying and computing composite involvement scores for the underlying factors. The initial Eigen values demonstrate that the seven factors explained 2.044%, 2.842%, 2.487%, 2.342%, 3.385%, 3.452, and 3.195%, respectively. In addition, varimax rotations were used in examining the factor solution of the factor loading

matrix and the factors explained 78.0%, 80.26%, 76.61%, 81.34%, 80.01%, 82.19%, and 75.08% of the variance in each of the constructs, respectively.

3.13.6 Mean Values of the Constructs and Relationships

The descriptive values of the underlying construct demonstrate that a majority of the constructs have a mean value below the average mean with Org (m =1.77; SD .412), IAI (m =2.57; SD =.689), IAC (m =2.59; SD =.728), IARL (m =2.48; SD =.495), IAS (m =3.06; SD =.680) and TMS (m =3.02; SD =.818)

Table 3.3
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Org. Per.	40	1.00	2.50	1.7708	.41291
IAI	40	1.00	4.40	2.5700	.68918
IAC	40	1.00	4.20	2.5950	.72817
IARL	40	1.57	3.29	2.4821	.49560
IAS	40	1.83	4.17	3.0625	.68009
TMS	40	1.14	4.57	3.0250	.81898

Relationships among the Constructs

Table 3.4
Correlations

	Org. Per.	IAI	IAC	IARL	IAS	TMS
Org. Per.	1					
IAI	-.040	1				
IAC	-.118	.703**	1			
IARL	-.165	.537**	.815**	1		
IAS	-.087	.732**	.639**	.504**	1	
TMS	-.203	.392*	.831**	.902**	.406**	1

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

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

3.13.7 Testing of relationships in the Pilot Study

The relationships between the variables in the study were tested using Pearson Moment Correlation. The results show that a strong positive correlation was found between IARL and TMS ($r = .902, p < .05$), indicating a significant relationship where the IARL influences family TMS. Similarly, a strong positive relationship was found between IAC and TMS ($r = .831, p < .05$), indicating a significant positive relationship where the IAC influences TMS. In addition, another strong correlation between IAI and IARL ($r = .815, p < .05$) indicates a significant correlation where the IAI influences IARL. Moreover, strong correlations were found between IAI and IAS ($r = .731, p < .05$) and IAI and IAC ($r = .703, p < .05$) indicating significant relationships where the IAI influences IAS and IAC respectively.

Besides that, moderate correlations were found between IAI and IARL ($r = .537, p < .05$), IAC and IAS ($r = .639, p < .05$), IARL and IAS ($r = .503, p < .05$) and IAS and TMS ($r = .406, p < .05$). However, a weak positive correlation was found between IAI and TMS ($r = .392, p < .05$), indicating a significant relationship where IAI influences TMS. It is important to note that the strong and moderate positive correlations were at .001% significance whereas the weak correlation is at .05% level of significance.

3.13.8 Discussions of the findings from the Pilot study

The relationships among the variables show positive correlations that range from .392 to .902, depicting that most of the relationships move from weak to strong correlations among the variables. Moreover, all the correlations' coefficients were at 0.01 percent level of significance.

The highest relationship was found between IARL and TMS, followed by IAC and TMS. Meanwhile, the moderate relationships were found in the relationship between IAI and IARL; IARL and IAS; IARL and IAS and TMS.

The findings indicate that the variables have satisfactory correlations among them signifying the presence of convergence validity.

The observations and comments made by the participants led to the sentence restructuring and repositioning of some items, thereby making the items relevant and capable of helping the researcher achieve the objectives of the study. The internal consistency indicated that the items on the instrument are reliable.

3.14 Content and Face Validity of Instrument

Content validity serves as a process of consulting a small sample of experts to justify the suitability of the items chosen to measure a construct (Sekaran & Bougie, 2010). Based on this, a draft of the instrument was given to experts for observations, comments, and corrections at Bayero University, Kano, Nigeria. The experts who were contacted are long serving Professors and some senior lecturers from the departments of accounting, management sciences, and sociology. The other expert is a senior visiting lecturer from the College of Business (COB), Universiti Utara, Malaysia. The draft instrument was also given to experienced internal auditors who are familiar with the context of the study to check the clarity and the peculiarity of the instrument to the environmental context. A sample of the instrument was equally given to several professional bodies such as ICAN and ANAN members, who made valuable suggestions on how to improve the instrument. They suggested that such an instrument should be simplified and be straight to the point for the understanding of the respondents. To this end, many questions were redefined and rephrased by the

experts for the variables to be measured appropriately as well as to be clear and understandable to the potential respondents.

After due consultations and taking into consideration the observations made by the supervisors and reviewers, a variable of timeliness of IA report (TIAR) was added to the construct of IAQ. Thereafter, the researcher developed an enriched and revised version of the instrument. The researcher distributed the questionnaires, and explained appropriately to the respondents during the annual conference of committee of heads of IA of Nigerian universities. Participants are with the view that the research is timely and expressed hope that, at the end of the research, IA will be recognized and more productive.

3.15 Reliability Test

In the pilot test, the sample size is usually small in number, starting from fifteen to thirty respondents, or it could be more depending on the nature of the study, like if the study involves several stages (Malhotra, 2008). However, in the full scale of the research, the sample size is usually larger. Therefore, in measuring the validity and reliability of the instrument, there could be a reduction of measurement error to some certain level. The most common test of inter-item consistency reliability is the Cronbach's alpha coefficient. Hence, the Cronbach's alpha coefficient was employed in this study to measure the internal consistency of the instrument. After running the data using SPSS version 20, it was found that all the measures possessed a high reliability standard ranging from 0.736 to 0.933 (See Table 3.2). This is in accordance with the standard that an instrument with a coefficient of 0.60 is considered to have an average reliability; whereas a coefficient of 0.70 and above

shows that the instrument has a high level of reliability. This indicates adequate internal consistency and satisfied the minimum value of .70 (Sekaran & Bougie, 2010).

Table 3.5
Summary of Total Number of Items for Each Instrument and Their Reliability Coefficient

Variables	Number of items	Cronbach's Alpha
IA competence	7	0.901
IA independence	10	0.902
IA size	12	0.881
IA reporting line	8	0.736
Timeliness of IAR	11	0.708
Top mgt. support	9	0.893
Organizational performance	11	0.933

The results indicated above shows a high and acceptable level for Cronbach's alpha value. All the variables under investigation are above 0.70, hence given all the yardstick, the variables were found to be reliable and their coefficient reached the satisfactory level of consistency.

3.16 Summary of the Chapter

The chapter discussed the research methodology, developed both a conceptual and theoretical research framework, and considered the operationalization and measurement of variables. The research framework is proposed as a mechanism to examine the relationship between the dimensions of IAQ consisting of IA independence, IA competency, IA size, IA reporting line, and timeliness of IA report with organizational performance. Also in the framework, the research employed top management support as the moderating variable. Hypotheses were developed. The study further produced the summary of variables measured. Other sections in this

chapter includes data collection procedure, techniques of data analysis, sampling techniques. The result of the pilot study was also presented.



CHAPTER 4: DATA ANALYSIS AND RESULTS

4.1 Introduction

This chapter presents data analysis and results of the study. The aim of this study was to examine the IAQ on organizational performance in the context of Nigerian Federal Universities with moderating effect of top management support.

The chapter is divided into sections with first section covering data collection process and survey response, non-response bias, data cleaning and descriptive analyses of the demographic characteristics of the respondents, The second section provides the preliminary analysis of the data consisting of Confirmatory Factor Analysis (CFA) and the psychometric properties of the measure used in the study; bivariate associations among variables. The third section presents the correlation test, regression analysis for hypothesis testing as well as hierarchical regression analysis for testing the moderating variable of the study. The section below provides data collection and survey response.

4.2 Data collection Process and Survey Response

According to the statistics obtained from the National Universities Commission (NUC), as at 2015, there are forty (40) Nigerian federal universities which constitute the population of the study. A sample size of 600 respondents was drawn from the population. That means, the senior internal auditors at senior cadre were selected from each of the 40 Nigerian federal universities to take care of non- response rate and to minimize error. The list of the respondents was extracted from NUC' general

staff list (Nigerian Universities Staff data bank) for workers in Nigerian universities. NUC is the apex federal universities regulatory agency in Nigeria.

For the purpose of this study, Krejcie and Morgan (1970) table was used in determining sample size. Therefore, according to Krejcie and Morgan (1970) sample determination, a total of 234 internal auditors were selected to serve as the sample of the study. However, to minimize error in sampling and to take care of non-response rate issue, purposive sampling technique was employed. The sample size of the 234 internal auditors at senior IA cadre extracted from NUC data bank was multiplied by two (Hair; Wolfinbarger & Ortinall 2008). Therefore, 468 was the total number of questionnaires administered.

A total of 468 questionnaires were distributed. The researcher was opportune to distribute the questionnaires during the annual general meeting and conference of committee of heads of IA of Nigerian universities held in Keffi, Nassarawa State, Nigeria in November, 2016. As a member of the committee, the researcher personally administered the questionnaires with the help of three assistants. It was administered to the respective heads of IA to each of the represented university and provided the remaining copies to each of them for onward distribution to their senior staff. All the respective respondents who were at the conference answer the questionnaire before the end of the conference. The questionnaires that were administered to other senior IA cadre who were not in the conference were made through their various heads of IA. Six research assistants were employed to follow up for the collection of the completed questionnaire because Nigerian federal universities cut-across six geographical zones in the country. This is in addition to

the extent phone calls, email messages for reminders and personal visitation to the respondents. This process took three months, which was between early November, 2016 to late January, 2017.

A total of 342 questionnaires were duly completed and returned, representing 73 percent response rate. However, a total of 313 questionnaires were finally retained for analysis, as depicted in table 4.1 indicating a total of 29 rejected questionnaire.

The data was drawn from the respondents attached to audit department in the selected universities. Based on the contents of instrument which has been designed for audit functions available, personal opinion may not apply. The response provided by respondents reflects what is actually obtained in their respective universities. Moreover, IAQ as construct has been considered. Therefore, mean value of each aggregates address the issue of variation in the response by the respondents.

Table 4.1
Questionnaire Distribution and Retention

Items	Frequency	Percentage (%)
Distributed Questionnaire	468	100.00
Returned Questionnaire	342	73.00
Rejected Questionnaire	29	8.50
Retained Questionnaire	313	66.90

A total of 313 representing 66.9% of the respondents constituted the sample for this research. According to (Sekaran, 2003), fifty to sixty percent of response rate is often considered an acceptable return rate for survey research. At least 50% of response rate is adequate for analysis and reporting, 60% of response rate is considered good, and a response rate of 70% is considered as very good (Sekaran, 2003).

The respondents cover the entire Nigerian federal universities. The response rate is considered adequate in accordance to Sekaran (2003) that 30% response rate is considered suitable for the survey. Hence, 313 usable responses rate of 66.9% satisfied the requirement for the sample size to conduct multiple regression analysis. This higher response rate was achieved due to the mutual understanding between the researcher and the respective respondents. The researcher is heading IA department in one of the federal universities and also a member of the committee of head of IA departments of Nigerian universities. The topic of the research and the expected findings of the research shows common interests which motivated the respondents to respond positively.

The high response rate was also attributed to the fact that the researcher is within the Nigerian federal university environment as HIA in one of the universities under study. The researcher was opportune to be attending the meeting and conference of all heads of internal departments/units holding annually to discuss issues affecting IA operations in Nigerian universities. It was during the conference that was held at Nasarawa state university, Nigeria, the researcher personally distributed the questionnaire, and arrange the distribution of other questionnaires to other participants through their various heads of department. The researcher explained to the participants that only officers at senior audit cadre are eligible to fill the questionnaire. That is, staff on consolidated salary structure for tertiary institutions at level 07-15.

On the spot responses were realized and after the conference, research assistants complements the collection process through personal contacts, emails and courier

delivery services. This matured relationship that exist between the researcher and the respondents, makes it possible for achieving high rate of response. Similarly, some studies conducted in Nigeria also identified high response rate, of which more than 60% response rate was achieved. Such studies consist among others of Enofe, *et al* (2013), Badara and Saidin (2014); Shehu (2014) and Gorondutse (2014).

The data was keyed into Statistical Package for Social Science (SPSS; *version 20*) for the analysis. SPSS is used in the study due to large sample size involved and data is reasonably normally distributed. Although, Partial least Square (PLS) is another software and commonly used by many researchers. Partial Least Square (PLS) is an emerging tool that offers benefit over covariance based SEM and/or OLS regression modelling. It is normally used when the sample is moderately small and not necessary normally distributed for goodness of fit index to be obtained. Therefore, using PLS in this study, the results may likely differs as PLS takes care of the data that is not normally distributed and small size is required. The regression analysis employed in this study used data that is normally distributed and large in size. Therefore, the researcher decided to use SPSS because of the large data involved in the study, free from influential outliers and also absence of multicollinearity. Having keyed in the data, preliminary analysis was carried out starting with the non-response bias and self-selection bias as provided below.

4.3 Non-Response Bias and Self-Selection Bias

Berg (2002) described a non-response bias as the most common mistake a researcher expects to make in estimating the characteristics of sample because some of the respondents are not adequately represented due to non-response. Further to this,

Singer (2006) argued that there is no clear cut off rate of response rate below which a survey estimate is necessary biased, and on the other hand, no response rate above which it is never biased. That is why it is emphasized that no matter how small a non-response is, it has to be investigated (Shehu, 2014).

In an event where there is non-response bias, that is a situation where respondent answer questions untruthfully or giving misleading answers to the survey, this has to be investigated. The best way to deal with non-response bias in this research is to run t-test that is running an independent sample t-test using statistical package like SPSS software in order to contrast the responses of those who responded to the questionnaire early and those who responded to the questionnaire late.

Where self-selection bias occurs, that is in a situation where individuals select themselves into a group, causing a biased sample with nonprobability sampling. Statistical package like SPSS software can be used to contrast the problem. Self-selection bias is commonly used to describe situations where the characteristics of the people which cause them to select themselves in the group create abnormal or undesirable conditions in the group. It is closely related to the non-response bias, describing when the group of people responding has different responses than the group of people not responding. *It is a bias* that is introduced into a research project when participants choose whether or not to participate in the project, and the group that chooses to participate is not equivalent (in terms of the research criteria) to the group that opts out. *Self-selection bias* is the problem that very often results when survey respondents are allowed to decide entirely for themselves whether or not they want to participate in a survey.

However, in this research, a non-response does not occur, neither self-selection bias. The time frame allocated for the administration of the questionnaire and collection of responses was virtually 3 months and all responses were collected within the time frame. This is attributed to the fact that the researcher is within the university system and has cordial relationship and support with the respondents. With this development, the data was subjected to data cleaning aimed at making sure quality and meaningful data was obtained. This is followed by discussion on the missing data and then finally on outliers.

4.4 Data Cleaning

In conducting multivariate analysis, data cleaning is very important. The quality and meaningfulness of the analysis depend on the editing as well as screening of the data (Pallant, 2011) as cited in Shehu (2014). Therefore, missing data and outliers were carefully and thoroughly treated.

4.4.1 Missing Data

Hair, *et al.* (2010), described missing data as the unavailability of appropriate value of one or more variables for data analysis. Due to negative consequences of missing data in the analysis, the researcher took effective measures from the period of administering to the final analysis. This is in an attempt to reduce or in an effort to ensure the data is free from any missing value. After receiving any completed and returned questionnaire, the researcher quickly and thoroughly checked to ensure that each and every aspect of the questionnaire is answered correctly, since the researcher was right close to the respondents. The six research assistants are trained and professional auditors and greatly helped in guiding the respondents in case of any

enquiries from the questions. Therefore, the questions were appropriately answered in an event the respondent's inability to answer any given question. During the data entry, the researcher made necessary follow up step by step with cushion so that no data is left without being entered. Whenever a missing data is noticed, the researcher refer to the respective questionnaire and traces it. This significantly ensured limit missing values. The researcher further conducted a preliminary descriptive statistics in order to find out the possibility of any missing value since the process cannot be 100% free from any missing value. The missing values detected are less than three (3) percent of the total response, hence, the researcher used series mean approach in filling the missing values as recommended by Hair (2010).

4.4.2 Outliers

Outliers are those cases whose scores differ substantially from the most of the data set (Byrne, 2010). Tabachinich and Fidell (2014) recommended the identification of univariate outlier through observation of *Z score*. The *Z score* for each and every item must be within the range of + or – 3.29 (0.001 sig. level). Under this investigation, any value exceeding + or – 3.29 were the results of some mistakes during the data entry. Further to this, Mahanalobis distance was examined to identify multivariate outliers. In present study both univariate and multivariate outliers were tested and detected. For univariate outlier, nine items were found to be above range of +3 -3 and are subsequently removed from the study. Moreover, multivariate outlier was tested (corresponding to the .001 alpha level) via Mahalanobis. Six items were found to be above the chi square of the degree of freedom (108.54) and are eliminated from the study.

4.4.3 Statistical Analysis used in the Study

In conducting the data analysis, various statistical tools were employed which includes the following:

1. Descriptive analysis using frequency and percentage was employed in obtaining demographic variables.
2. Exploratory Factor Analysis (EFA) was employed in order to determine the underlying factors.
3. Confirmatory Factor Analysis (CFA) was also used to confirm the underlying factors identified using EFA
4. Descriptive analysis using mean and standard deviation were used for each constructs.
5. Pearson Product Moment Correlation was employed in assessing the strength of the linear relationship between the independent variable and the dependent variable
6. Multiple regression analysis was used in testing the hypotheses both direct and moderating relationship in the study.

Having conducted preliminary analyses, descriptive analyses involving profile respondents is now presented.

4.5 Descriptive Analysis – Profile of Respondents

Table 4.2 below depicts the demographic characteristics of the respondents and the results showing age, gender, years of service, rank, academic qualification as well as professional qualification.

Table 4.2
Demographic Information of the Respondents

Demographic Variable	Frequency	Percentage (%)
Age		
20-29	8	2.6
30-39	54	17.3
40-49	120	38.3
50-59	131	41.9
Total	313	100
Gender		
Male	254	81.2
Female	59	18.8
Total	313	100
Years of Service		
1-9 years	36	11.5
10-19 years	115	36.7
20-29 years	162	51.8
Total	313	100
Rank		
Director Internal Audit	29	9.3
Chief Internal Audit	31	9.9
Assistant Chief Internal Auditor	64	20.4
Senior Internal Auditor	91	29.1
HEO Audit	98	31.3
Total	313	100
Qualification		
Diploma/NCE	4	1.3
HND/BA/BSC	237	75.7
Masters	69	22.0
PhD	3	1.0
Total	313	100

Table 4.2 Continue

Demographic Variable	Frequency	Percentage (%)
Professional Qualification		
ICAN	64	20.4
CMA	6	1.9
ANAN	163	52.1
CPA	7	2.2
ACCA	3	1.0
CIA	9	2.9
Others (ITAX, MGT, PAC)	61	19.5
Total	313	100

The table depicts that respondents aged 50-59 were the majority accounting for 131 respondents, representing 41.9%, followed by respondents aged 40-49 accounted for 120 respondents, representing 38.3%. Respondents aged 30-39 that accounted for 54 representing 17.3% while the least were respondents aged 20-29 that accounted for 8 representing 2.6%. The results indicates that majority of the respondents have been in service and are having the requirement.

The results for gender that participated in the study revealed that male respondents were the majority accounted 254 representing 81.2% while the least were female respondents that accounted for 59 representing 18.8%. The finding illustrates that male respondents have participated more than the female counterpart. This is due to Nigerian cultural background and religious belief were women are sometimes

restricted from taking public jobs. Therefore, the number of female participant is minimum.

Besides that, the findings involving years of service of the respondents portray that respondents with 20-29 years of service were the majority and accounted for 162 representing 51.8%. Respondents with 10-19 years of service which accounted for 115 representing 36.7% while the least were the respondents with 1-9 years of service that attracted 36 representing 11.5%.. The results show that respondents have adequate work experience in the audit department.

The results for rank of the respondents indicate that respondents with rank of Director of IA accounted for 29 representing 9.3%, respondents with rank of Chief Internal Auditor accounted for 31 representing 9.9%. Respondents with rank of Assistant Chief Internal Auditor accounted for 64 representing 20.4% while respondents with rank of Senior Internal Auditor accounted for 91 representing 29.1%. Respondents with the rank of HEO Audit were the majority of the respondents accounted for 98 representing 31.3%.

The findings regarding qualification of the respondents show that respondents that possess Bsc/BA/HND were the majority among the respondents accounting for 237 representing 75.7%. This is followed by the respondents with Master's degree accounting for 69 representing 22%, then respondents with Diploma/NCE which accounted for 4 representing 1.3%. The least were the respondents with PhD accounting for 3, representing 1%. The findings reveal that staff of the IA

department have satisfactory level requirement for effective discharge of the assigned mandate.

Finally, the results for professional qualification of the respondents show that respondents in possession of Association of National Accountant of Nigeria (ANAN) certificate were the majority accounting for 163 representing 52.1%. This is followed by respondents with Institute of Chartered Accountants of Nigeria (ICAN) accounting for 64 representing 20.4% The least were respondents with ACCA accounting for 3 representing 1%. The findings reveal that most of the respondents have professional qualification required for effective audit function.

4.5.1 Factor Analysis

Factor analysis is a data reduction device which is used in summarizing the variable structure in a given set of data. One of the conditions which have to be met in conducting factor analysis is that the sample size is required to have a minimum of 300 cases (Tabachnick & Fidell, 2014). Hair *et al.* (2010) asserted that the general rule of thumb for a factor analysis to be carried out is that there should be a minimum of 5% respondent per variable under study. Therefore with good data of 313 and seven variables of study has met the requirement to conduct the factor analysis. Exploratory Factor Analysis (EFA) was carried out in order to determine the underlying factors. Seven factors have been identified comprising of IA competence (IAC) with seven items comprising of IAC1, IAC2, IAC3, IAC4, IAC5, IAC6 and IAC7; IA Independence (IAI) with 5 items that comprises of IAI1, IAI2, IAI6, IAI9 and IAI10; I Size (IAS) with 12 items comprising of IAS1, IAS2, IAS3, IAS4, IAS5, IAS6, IAS7, IAS8, IAS9, IAS10, IAS11 and IAS12; Reporting Line of

Internal Audit (RLIA) with seven items including RLIA1, RLIA2, RLIA3, RLIA4, RLIA5, RLIA6 and RLIA7; Timeliness of Internal Audit Report (TIAR) with six items consisting of 1, 2, 3, 4, 8 and 11; Top Management Support (TMS) with 9 items comprising of TMS1, TMS2, TMS3, TMS4, TMS5, TMS6, TMS7, TMS8 and TMS9 and lastly Organizational Performance (OP) with eleven items consisting of OP1, OP2, P3, OP4, OP5, OP6, OP7, OP8, OP9, OP10 and OP11.

Items correlated on at least .3 with Kaiser-Meyer-Olkin measure of sampling adequacy.503 similar to the recommended value of .5 (Hair, 2010). The Bartlett's test of sphericity was also significant. However, the communalities and anti-image diagonals correlation matrixes were all over .5. This confirmed that most of the items shared some common variance with other items. Based on the overall indicators, factor analysis was carried out with some items deleted.

In carrying the EFA, principle components analysis was used in the process with a primary purpose of identifying and computes composite involvement scores for the underlying factors. The initial Eigen values demonstrates that the seven factors explained 2.044%, 2.842%, 2.487%, 2.342%, 3.385%, 3.452 and 3.195% respectively. In addition, varimax rotations were used in examining the factor solution of the factor loading matrix and the factors explained 78.0%, 80.26%, 76.61%, 81.34%, 80.01%, 82.19% and 75.08% of the variance in each of the items respectively. The table below shows the underlying factors.

The table is showing the underlying factors with the corresponding communalities, factor loadings and Cronbach Alpha values.

Table 4.3
Exploratory Factor Analysis

SN	Item Statement	Communalities	Factor Loadings	Cronbach Alpha
IAC1	Internal audit staff of the University possess appropriate knowledge, skills and professionalism in auditing profession to execute the task given to them	.736	.856	.784
IAC 2	Recruitment process into internal audit department allow for recruitment standard that set out intellectual qualities and personal attributes	.727	.833	
IAC 3	The University has standing policies for training and career development plan for internal audit staff.	.586	.727	
IAC 4	Internal auditors in the university are allowed to participate in the annual continuous professional development programme organized by relevant professional groups.	.627	.783	
IAC 5	Internal audit manual is readily available in your University to guide audit staff in executing their responsibilities	.630	.709	
IAC 6	All new internal audit staff receives induction training	.559	.634	
IAC 7	Internal audit is sufficiently resourced in terms of staff and budget and are deployed effectively to deliver the approved audit plan.	.727	.766	
IAI1	Internal auditing is free from interference in discharging its mandate.	.739	.849	
IAI2	Internal audit has direct access to top management.	.599	.684	
IAI6	Internal auditors conduct audit function according to the assigned responsibilities.	.725	.830	
IAI9	The University council or audit committee oversees employment or dismissal of chief Audit Executive.	.686	.677	
IAI10	Internal audit performs its duties with greater degree of autonomy and independence from management.	.471	.523	

Table 4.3 Continue

SN	Item Statement	Communalities	Factor Loadings	Cronbach Alpha
IAS1	The staff in the internal audit department of the university are adequate to carry out the routine and strategic audit functions.	.792	.817	.797
IAS2	All auditing functions that were approved in the audit plan are performed completely	.722	.814	
IAS3	There are indications of outsourcing the function of internal audit staff in the University.	.778	.815	
IAS4	The number of employees in internal audit is limited given the amount of auditing work planned and needing to be done in the near future.	.730	.706	
IAS5	The internal audit department services/functions covers what is expected of it.	.712	.786	
IAS6	Internal audit services in the university effectively coordinate and promotes cooperation with external auditors to accomplish task.	.633	.614	
IAS7	Internal audit personnel are routinely rotated on assignments.	.658	.575	
IAS8	Internal audit personnel do not have any conflicting operating responsibilities.	.851	.842	
IAS9	Budgetary provision to internal audit department is adequate regardless of its size.	.559	.643	
IAS10	Budgetary provision to internal audit department is based only on the number of audit staff.	.753	.828	
IAS11	Management is not sufficiently aware of the need of internal audit as demonstrated by the small budget assigned to internal audit.	.766	-.679	
IAS12	Internal audit department is large enough to successfully carry out financial and non-financial activities of the university.	.683	.821	
RLIA1	Reporting line of internal audit supports internal audit independence with functional Reporting to the audit committee of the university council and administratively to the Vice-Chancellor.	.827	.884	.710

Table 4.3 Continue

SN	Item Statement	Communalities	Factor Loadings	Cronbach Alpha
RLIA2	The reporting level varies with the importance of internal audit findings	.791	.866	
RLIA3	Internal audit reports and findings are adequately documented and are being considered for implementation by the chief executive.	.620	.731	
RLIA4	Internal audit follow up implementation of corrective measures relating to audit findings.	.614	.738	
RLIA5	The report and findings of internal audit influence management decision processes.	.441	.686	
RLIA6	Internal audit department/unit is properly structured and functionally positioned to allow effective auditing operations and reporting relationship.	.673	.686	
RLIA7	The council of the university is routinely updated with internal audit status and activity reports	.838	.889	
TIAR1	Internal audit reports are generally objective, clear, and timely to allow effective decision making.	.411	.632	.714
TIAR2	Audit findings and recommendations are appropriately classified to addresses major risk elements in the University and are issued promptly.	.831	.878	
TIAR3	Draft internal audit reports are issued for consideration by the auditee within reasonable time scale before release to management.	.790	.701	
TIAR4	Internal audit work is documented and maintained in a file of audit working papers.	.600	.654	
TIAR8	There is a procedure for follow up that ensure agreed recommendation and implementation within pre-agreed timescales.	.667	.768	

Table 4.3 Continue

SN	Item Statement	Communalities	Factor Loadings	Cronbach Alpha
TIAR 11	Report content message (quality/adverse report) largely determine the timeliness of internal audit report as it may contain an opinion of overall internal control adequacy and effectiveness of the organization,	.741	.817	
TMS1	Internal audit department/unit is adequately resourced in terms of staff and working materials to enable it perform effectively.	.546	.673	.721
TMS2	Internal audit services have the necessary records and have access to information to enable it achieve its objectives.	.744	.709	
TMS3	Management and audit committee of your university respond to audit findings and recommendations promptly.	.806	.723	
TMS4	Internal audit staff are allowed to participate in an annual mandatory professional training programme organized by professional bodies.	.898	.946	
TMS5	Internal audit is involved in University management committee meetings and other strategic committee meetings to remain update about the university's operations.	.375	-.604	
TMS6	Internal audit services have appropriate autonomy with defined responsibilities to discharge its functions effectively in the University.	.548	.516	
TMS7	Top level management trust and values the internal audit services.	.748	.817	
TMS8	Internal audit services are seen as a key strategic partner for achieving the objectives of the university	.710	.838	
TMS9	Internal audit staff are allowed to participate in regular training to update their skills and knowledge.	.690	.727	

Table 4.3 Continue

SN	Item Statement	Communalities	Factor Loadings	Cronbach Alpha
OP1	My University experience significant improvement in financial efficiency as a result of structure that allow for quality internal audit.	.575	.687	.854
OP2	My University experience significant return on asset as a result of existence of internal audit which promotes efficient utilization of its scarce resources.	.714	.813	
OP3	My University experience significant reduction in service costs as a result of its compliance with appropriate internal audit laws, regulations and policies.	.773	.764	
OP4	My University succeeds in improving the confidence of stakeholders as a result of quality Internal audit that contributes to academic excellence through its objective assessment in performance audit.	.630	.652	
OP5	My University succeeds in contributing the performance of the institution because it has an established policy and procedure inform of manual that guide internal audit in the discharge if its responsibilities.	.625	.506	
OP6	My University available services are supportive for its stakeholders as a result of Internal audit findings and recommendations that provide practical and cost-effective corrective measures for effective performance.	.615	.773	

Table 4.3 Continue

SN	Item Statement	Communalities	Factor Loadings	Cronbach Alpha
OP7	My University have reduced amount of stakeholders complaints as a result of quality internal audits that ensure operating procedures are consistent with learning and growth objectives of the institution.	.690	.782	
OP8	My University significantly reduces the amount of average mistakes in its procedures because of its regards for internal audit as value adding activity in the institution.	.579	.524	
OP9	My University experiences significant increase in facilities' improvement because it regards internal audit as agent that influences positive change and continues improvement to the university's processes and accountability.	.686	.736	
OP10	My University significantly involve in supporting new services because it accepts and utilizes the competence of internal audit to improve the organizational processes and strategic objectives.	.799	.878	
OP11	My University performance has significantly improves in prompt response to stakeholder's because it accepts and utilizes the knowledge of internal audit to improve the organizational processes and strategic objectives..	.654	.685	

4.5.2 Confirming the Underlying Factors

Having determined the underlying factors, Confirmatory Factor Analysis was also carried out using the empirical framework of the Structural Equation Modeling (SEM). The purpose was to ensure that the construct validity of the factors conformed to what is

expected on the basis of *apriori* assumption. The CFA model focuses solely on the link between factors (latent variables) and their manifest variables, and within the SEM. It represents what has been termed as measurement model (Byrne, 2010). After the confirmatory factor analysis the following items were retained.

Table 4.4
Results of Confirmatory Factor Analysis

S/N	Constructs	No of items Retained	Items Number
1	Internal Audit Competence	3	Item 1, 2 and 3
2	Internal Audit Independence	4	Item 1, 2, 6, 7 and 10
3	Internal Audit Size	4	Item 1, 2, 5 and 12
4	Reporting line of Internal Audit	4	Item 1, 2, 3 and 7
5	Timeliness of Internal Audit Reporting	3	Item 1, 2 and 4
6	Top Management Support	4	Item 6, 7, 8 and 9
7	Organizational Performance	8	Item 2, 3, 5, 6, 7, 8, 10 and 11

4.6 Psychometric Properties of the Measure

This section deals with psychometric properties of measure used in the study. Reliability of the instrument covering the subscales is provided in the section.

4.6.1 Reliability

The aim of this analysis is to establish the reliability and validity of the manifest variables or indicators of the exogenous constructs that would be utilized for further analyses. In order to verify the reliability of the observed measures of the exogenous variables, analyses of reliability were conducted. Similar procedures as in the pilot study were employed to examine whether the measures were reliable when examined using the collected data of this study. The results provided support that the scales employed were reliable as indicated in table 4.5 below.

Table 4.5
Reliability of the Constructs

SN	Construct	No of items	Alpha Value
1	Internal Audit Competence	3	.706
2	Internal Audit Independence	4	.700
3	Internal Audit Size	4	.814
4	IA Reporting Line	4	.740
5	Timeliness of IAR	3	.881
6	Top Management Support	4	.763
7	Organizational Performance	8	.841

4.7 Mean and Standard Deviation of the Variables/Constructs

The most common measure of central tendency is the mean, which is referred as the average value of the data set (Sekaran & Bougie, 2010). Both the mean and the standard deviation are fundamental descriptive statistics for interval and ratio scale. Five Point Likert scale to interpret the level of score was adapted. Some studies, recommended that scores of less than 2.33 are low level, 2.33 to 3.67 are moderate level, and 3.67 and above are regarded as high level.

Table 4.6 shows the mean values of the constructs comprising of IA competence (M = 3.63; SD = .773), IA independence (M = 3.64; SD = .664), IA size (M = 2.86; SD = .932), IA reporting line (M = 3.14; SD = .816), timeliness of IA report (M = 3.62; .849), top management support (M = 3.42; SD = .758) and organizational performance. The construct with highest mean is the organizational performance with 3.85 which is dependent variable the study. This is followed by IA independence with 3.64, IA competence 3.63, timeliness of IA report 3.62. Top management support has 3.42, IA reporting line 3.14, while, IA size 2.86.

Table 4.6
Means and Standard Deviation of the variables

S/N	Variable Name	Mean	SD
1	IA Competence	3.63	.773
2	IA Independence	3.64	.664
3	IA Size	2.86	.932
4	Reporting Line of IA	3.14	.816
5	Timeliness of IA Report	3.62	.849
6	Top Management Support	3.42	.758
7	Organizational Performance	3.85	.525

4.7.1 Mean and Standard Deviation of the IA Competence

Table 4.7 shows the mean values of independent variable of IA competence (IAC) with 3 items. Item one, IAC1 has the highest mean value (M = 4.10; SD= .861) followed by IAC2 (M = 3.52; SD = .103) and IAC3 (M =3.26; SD =1.03). The findings show that the mean values ranges from 3.26 to 4.10, indicating that the mean values are satisfactory.

Table 4.7
Internal Audit Competence

Serial number	Item(s)	Mean	SD
1	IAC1	4.10	.848
2	IAC2	3.52	1.03
3	IAC3	3.26	1.03

4.7.2 Mean and Standard Deviation of the IA Independence

Table 4.8 indicates the mean and standard deviation of the IA independence. The construct has five number of items with IAI7 with highest value (M = 4.07; SD =.813 followed by IAI6 (M =3.93; SD =.813), IAI2 (M =3.65; SD =1.07), IAI1 (M =3.37; SD =1.06) and the least is the IAI with (M =3.20; SD =1.10). The findings

demonstrate that the mean values ranges from 3.20 to 4.07, indicating satisfactory level of mean loadings.

Table 4.8
Internal Audit Independence

S/N	Item(s)	Mean	SD
1	IAI1	3.37	1.06
2	IAI2	3.65	1.07
3	IAI6	3.93	.813
4	IAI7	4.07	.861
5	IAI10	3.20	1.10

4.7.3 Mean and Standard Deviation of the IA Size

Table 4.9 presents the results for IA size consisting of four items with IAS5 having the highest value (M = 3.11; SD =1.15) followed by IAS2 (M =2.89; SD = 1.01) then IAS1 (M =2.71; SD =1.23) and the least is IAS12 (M =2.72; SD= 1.24). The findings indicate that the mean values ranges from 2.71 to 3.11 indicating that the mean values have satisfactory mean values.

Table 4.9
Internal Audit Size

S/N	Item(s)	Mean	SD
1	IAS1	2.71	1.23
2	IAS2	2.89	1.01
3	IAS5	3.11	1.15
4	IAS12	2.72	1.24

4.7.4 Mean and Standard Deviation of the IA Reporting Line

Table 4.10 indicates the mean values of IA reporting line with four items. RLIA is highest (M = 3.37; SD =1.11) followed by RLIA (M =3.17 and SD = 1.02) then (M =3.15; SD =1.03) while the least RLIA 1 (M = 2.83; SD = 1.18). The findings reveal

that the mean values ranges from 2.83 to 3.37, indicating satisfactory level of mean values.

Table 4.10
Internal Audit Reporting Line

SN	Item(s)	Mean	SD
1	RLIA1	2.83	1.18
2	RLIA2	3.17	1.02
3	RLIA3	3.15	1.03
4	RLIA7	3.37	1.11

4.7.5 Mean and Standard Deviation of the Timeliness of IA Report

Table 4.11 indicates the mean and standard deviation of timeliness of IA report. The construct has three items with item one TIAR4 with highest value (M =3.82; SD =.979) followed by TIAR2 (M =3.53; SD =.872) while TIAR1 being the construct with least mean value has (M =3.53; SD =.872). The results demonstrate that the mean values ranges from 3.49 to 3.82 indicating satisfactory level of mean values for the construct

Table 4.11
Timeliness of Internal Audit Reporting

SN	Item(s)	Mean	SD
1	TIAR1	3.49	.977
2	TIAR2	3.53	.872
3	TIAR4	3.82	.979

4.7.6 Mean and Standard Deviation of Top Management Support (Moderating Variable)

Table 4.12 presents the mean values for top management support with 4 items. The results reveal that TMS7 and TMS8 have the highest mean values (M =3.54 and SD =.790) and (M =3.54 and SD =.950) respectively followed by TMS9 (M =3.34;

SD =1.01) and lastly TMS6 (M =3.25; SD =1.03). The mean values ranges from 3.25 to 3.54 indicating that all the mean values have met satisfactory level.

Table 4.12
Top Management Support

SN	Item(s)	Mean	SD
1	TMS6	3.25	1.03
2	TMS7	3.54	.970
3	TMS8	3.54	.950
4	TMS9	3.34	1.01

4.7.7 Mean and Standard Deviation of Organizational Performance (Dependent variable)

Table 4.13 demonstrates the results for organizational performance. The results show that OP5 has the highest mean value (M = 4.20; SD = .634) followed by OP7 (M = 4.10; SD =.624) OP3 (M = 4.04, SD = .668), OP8 (M =3.98; SD =.571), OP6 (M =3.66; SD =.843), OP11 (M =3.62; SD =.932), OP10 (M =3.59; SD =.860) and lastly OP2 (M = 3.53; SD =.880). The findings demonstrate that the mean values ranges from 3.53 to 4.20, indicating that all the mean values have met satisfactory level of means.

Table 4.13
Organizational Performance

S/N	Item(s)	Mean	SD
1	OP2	3.53	.880
2	OP3	4.04	.668
3	OP5	4.20	.634
4	OP6	3.66	.843
5	OP7	4.10	.624
6	OP8	3.98	.571
7	OP10	3.59	.860
8	OP11	3.62	.932

4.8 Assumptions of Multiple Regressions

Following the suggestion made by Hair *et al.* (2010) and Pallant (2001), the variables were checked for normality, linearity, multicollinearity and homoscedasticity to satisfy the basic underlying assumptions of multiple regression analysis.

4.8.1 Normality

Normality assumption was tested through examination of the data distribution of the variables. Tabachnick and Fidell (2014) assumed that normality of the data is one of the fundamental assumption of multiple regression analysis. Usually, researchers uses statistical method, graphical method or a combination of both to evaluate the linearity of the variables under review. The most commonly used methods of checking the normality of data are skewness and kurtosis. When a distribution is normal, the value of both skewness and kurtosis should be close to zero. Table 4.14 below shows the results of distribution of data that revealed the Skewness and kurtosis for a most of the variables, fell within the acceptable range of normality assumption (i.e. within the range of -1.0 to +1.0). Therefore, the normality assumption was not violated (Afifi & Clark, 1998).

Table 4.14: *Result of Test of Skewness and Kurtosis*

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Competence	313	3.6294	.77374	-.859	.138	.454	.275
Independence	313	3.6460	.66462	-.698	.138	.993	.275
Size	313	2.8634	.93258	.144	.138	-.827	.275
Reporting	313	3.1382	.81691	-.371	.138	-.517	.275
Timeliness	313	3.6198	.84938	-1.209	.138	.618	.275
Mgt. Support	313	3.4217	.75841	-.484	.138	-.009	.275
Org_Performance	313	3.8458	.52559	-.591	.138	.919	.275
Valid N (listwise)	313						

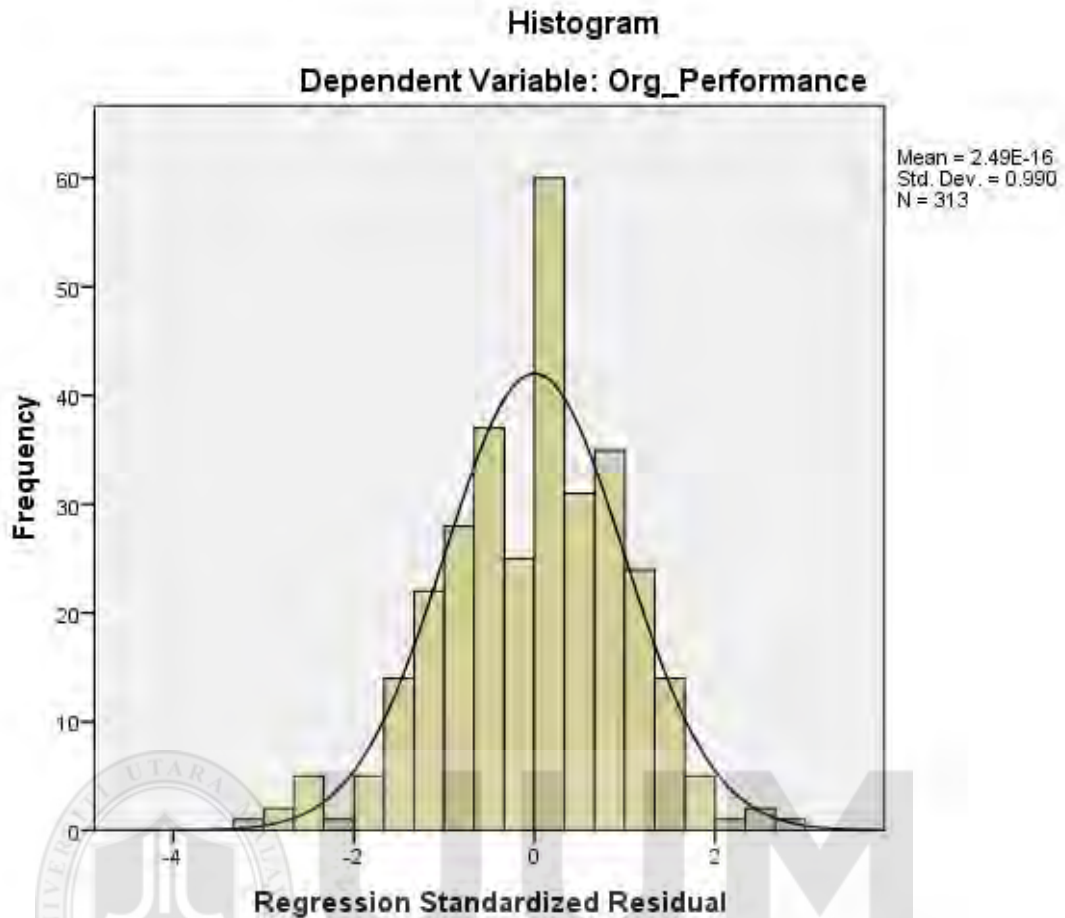


Figure 4.1 showing graphical method of testing linearity of the variables

The graphical method of checking the normality distribution of data collected was employed in this study. According to Field (2009) indicated that if the sample is large from 200 and above, it is more important to look at the distribution shape graphically instead of the value of the skewness and kurtosis statistics. Field (2009) asserted that a large sample decreases the standard errors, which can expand the value of the skewness and kurtosis statistics.

Normality is typically determined through histogram residual plots. That means a shape of data distribution to an individual continuous variable and its correspondent to normal distribution. If the assumption is achieved, the residuals should be

normally and independently distributed (Tabachnick & Fidell, 2007). The histogram and normality plots were examined and show that the collected data follow normal pattern because the entire bars in the histogram were close to a curve.

4.8.2 Linearity

In regression analysis, linearity is very important. This is because, it is one of the underlying assumptions of the technique. That is, there should be a linear relationship between independent and dependent variables. Hence, if substantial absence of linear relationship exists, they will not be considered in the analysis. That means it will underestimate the actual strength of the relationship (Tabachinich & Fidell, 2014). This study used residual scatter plot, the residual is expected to scatter around 0 and most of the scores should concentrate at 0 points (Ringim, 2012 & Shehu, 2014). The scatter plot between IAC, IAI, IAS, IARL, TIAR and organizational performance presented, do not violated the assumption as the plot shows that residual scores converged at the center along zero point. This evidenced that the linearity assumption was satisfied as shown below.

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Org_Performance

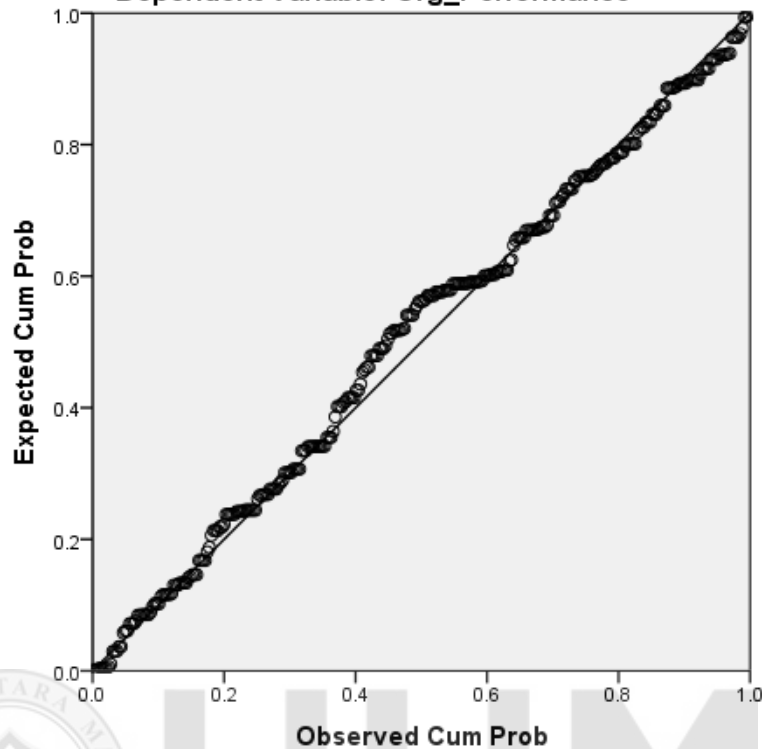


Figure 4.2

Showing Linear relationship between independent and dependent variables

4.8.3 Multicollinearity

Multicollinearity is a phenomenon where the relationship among two or more independent variables in a multiple regression model and are highly correlated (Sekaran & Bougie, 2010). The basic assumption in a multiple regression model is that no independent variable has a perfect linear relationship with one another (Tabachnich & Fidell, 2014). According to Sekaran & Bougie (2010), correlation matrix is the simple technique of detecting multicollinearity among the independent variables. Generally, many researchers considered correlation of 0.7 and above as high, while some considered the inter correlation of greater than 0.8 as high multicollinearity. Hair *et al*, (2010), considered the coefficient of independent variable as extremely associated among themselves at 0.9. Therefore,

multicollinearity deals with examination of the relationships that exist among the independent variables.

Table 4.15
Pearson Correlations

		Competence	Independence	Size	Reporting	Timeliness	Support
Competence	Pearson Correlation	1	.347**	.286**	.290**	.127*	.378**
	Sig. (1-tailed)		.000	.000	.000	.012	.000
	N	313	313	313	313	313	313
Independence	Pearson Correlation	.347**	1	.468**	.497**	.217**	.688**
	Sig. (1-tailed)	.000		.000	.000	.000	.000
	N	313	313	313	313	313	313
Size	Pearson Correlation	.286**	.468**	1	.396**	.074	.510**
	Sig. (1-tailed)	.000	.000		.000	.095	.000
	N	313	313	313	313	313	313
Reporting	Pearson Correlation	.290**	.497**	.396**	1	.475**	.565**
	Sig. (1-tailed)	.000	.000	.000		.000	.000
	N	313	313	313	313	313	313
Timeliness	Pearson Correlation	.127*	.217**	.074	.475**	1	.188**
	Sig. (1-tailed)	.012	.000	.095	.000		.000
	N	313	313	313	313	313	313
Support	Pearson Correlation	.378**	.688**	.510**	.565**	.188**	1
	Sig. (1-tailed)	.000	.000	.000	.000	.000	
	N	313	313	313	313	313	313

** . Correlation is significant at the 0.01 level (1-tailed).

* . Correlation is significant at the 0.05 level (1-tailed).

Table 4.15 above indicates that the independent variables in the study comprises of IA competence, IA independence, IA size, IA reporting line and timeliness of IA report were correlated. The correlation coefficients indicates that the items correlated moderately indicating absence of multicollinearity. The correlation coefficient ranges from .127 to .688. The highest correlation of .688 was found between IA independence and timeliness of IA report followed by .565 for the

relationships between IA reporting line and timeliness of IA report; .510 for the relationship between top management support and IA size; .497 for IA reporting line and IAI; .468 for IARL and IA independence ; .396 for IA size and IA reporting line; .378 IA competence and support; .290 IA size and IA competence report; .188 for top management support and timeliness of IA report. And lastly .127 for competence and timeliness of IA. The result indicates that data has met one of the fundamental requirements for Multiple Regression Analysis (MRA).

Another device for finding multicollinearity is to look at the variance inflated factor (VIF) and tolerance value.

Table 4.16
Multicollinearity Test based on Tolerance Values and VIF

Model	Collinearity Statistics		Condition Index	
	Tolerance	VIF		
(Constant)			1.000	
1	IA Competence	.831	1.204	19.554
	IA Independence	.489	2.045	12.319
	IA Size	.688	1.453	14.384
	IA Reporting Line	.514	1.946	16.430
	Timeliness of IAR	.752	1.329	21.175
	Top MGT. Support	.423	2.365	24.893

As presented in the above table, tolerance value, the variance inflated factor (VIF) and condition index were tested using regression result from SPSS to identify multicollinearity problem. Hair, Anderson and Tatham (2010) recommended that, multicollinearity become a concern if the tolerance value is less than .20, VIF value is greater than 5 and condition index is not greater than 30. Table 4.16 shows tolerance values, the VIF values and condition index for the exogenous latent constructs. The result indicates that no variables are extremely correlated with any

other variables. Therefore, the researcher concludes that there is no problem of multicollinearity between the variables under study.

4.8.4 Homoscedascity

The basic assumption of homoscedascity is that the variance of the dependent variable is approximately the same at different level of the independent or exploratory variables (Hair, *et al*, 2010). Homoscedascity is usually assessed through inspection of the scatter plot of the regression residual. It appears to be shown when the width of the band of the residuals is approximately the similar at unpattern levels of the dependent variable and scatter plot as shown in figure 4.3. The pattern of residuals normally disseminated around the mean (Berry & Fieldman, 1985). In this study, the assumption of homoscedascity was assessed using regression in SPSS *Version 20* method. The distribution of dots in the scatter diagram without specific pattern indicates that the data had met another important condition for Multiple Regression Analysis (MRA). The dot has spread all over the center without specific pattern of the distribution as shown below.

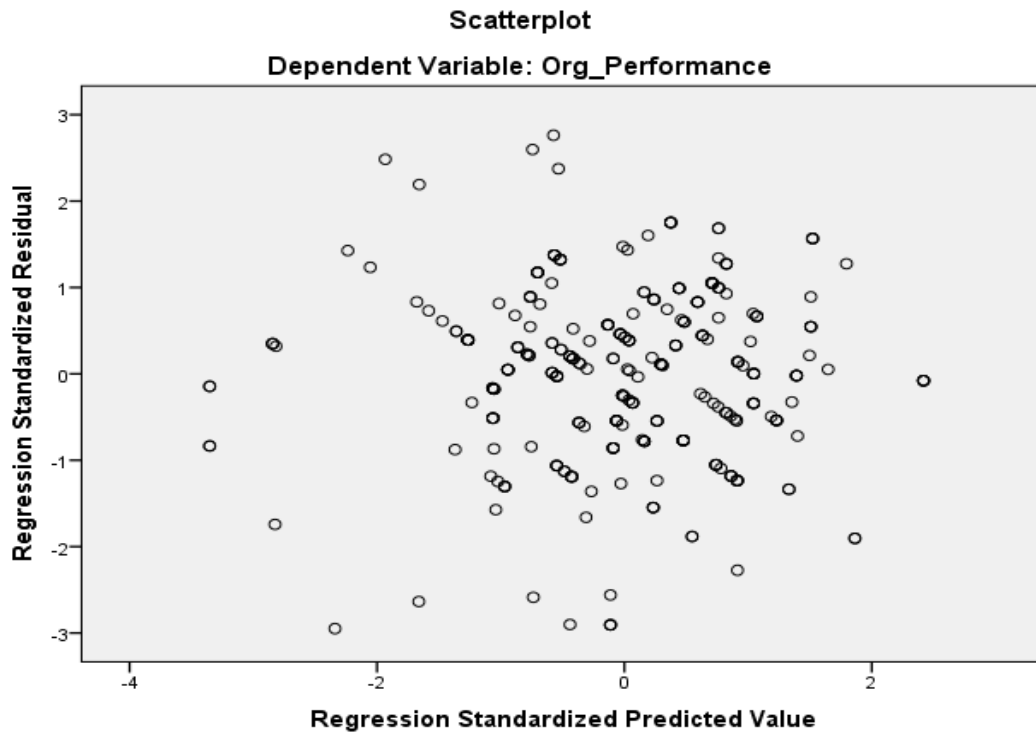


Figure 4.3
Showing the result of Homoscedascity of the variables

4.9 Correlations

Table 4.17 indicates the correlations coefficients of the seven constructs. The results show that positive correlations were found among the variables. The findings for the relationship between IA competence and organizational performance indicates ($r = .362, p < .05$). IA independence and organizational performance ($r = .533, p < .05$). IA size and organizational performance ($r = .477, p < .05$). IA reporting line and organizational performance ($r = .462, p < .05$). Timeliness of IA report and organizational performance ($r = .262, p < .05$). Top management support and organizational performance ($r = .662, p < .05$). The results indicates significant relationships with IA competence, IA independence, IA size, IA reporting line, timeliness of IA report and top management support and influences organizational performance. All the correlation coefficients are at 1% level of significance.

Table 4.17
Correlations coefficient of construct of the study

	1	2	3	4	5	6	7
IA Competence	1						
IA Independence	.347**	1					
IA Size	.286**	.468**	1				
IA Reporting line	.290**	.497**	.396**	1			
Timeliness of IAR	.127*	.217**	.074	.475**	1		
Top Mgt. Support	.378**	.688**	.510**	.565**	.188**	1	
Org_ Performance	.362**	.533**	.477**	.462**	.262**	.662**	1

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

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

4.10 Multiple Regression and Hypotheses Testing

The avenue that neutrally assesses the degree and character of the relationship between independent variables and the dependent variable is the multiple regression analysis (Sekaran & Bougie, 2010). The regression coefficient uses to show the relative significance of each of the independent variable in explaining the variability of the dependent variable. Sekaran and Bougie (2010) and Zikmund, *et al.* (2010), asserted that when independent variables are jointly regressed in an attempt to explain the variance in the dependent variable, the size of each (individual) regression coefficient will show how much an increase in one unit in the individual independent variable affects the dependent variable. This is by taking into consideration of all the other individual variables and dependent variable cave in to multiple correlation coefficient.

This study used the regression analysis to test the research hypotheses. The analysis intends to examine the relationship between the predicting variables and the criterion variable. Hair *et al.* (2010), asserted that for the conduct of regression analysis, large number of sample is required and considered appropriate, and that the underlying

assumptions of multiple regression analysis were fulfilled. The assumption includes among others, normality, linearity, multicollinearity, homoscedasticity which are normally investigated through the scatter plots and the normality probability plot in the regression standardized residuals.

The assumption above was thoroughly examined and the result indicated that none of the assumption was violated in the study, therefore, making the conduct of multiple regression analysis possible.

4.10.1 Direct and Indirect Relationship between IAQ Dimensions, Top management Support and Organizational Performance: Multiple Regression Analysis and Hypotheses Development.

Table 4.18 shows multiple regression analysis was computed to test the influence of the independent variables of IA competence, IA independence, IA size, IA reporting line, top management support and timeliness of IA report on the dependent variable - organizational performance. The results show that a regression model was found at (F-Stat = 50.29, Prob = .000), The results also as indicated in table 4.16 with predictors that were significant, $R^2 = 0.496$ and Adjusted $R^2 = 0.487$, indicating that IA competence, timeliness of IA report and the relationship of top management support have significant impact on organizational performance. The result of IA independence, IA size and reporting line of IA is not significant. The result of the model demonstrated that these independent variable have positive effect on organizational performance in such a way that the regression equation predicted almost (38%) contribution of IA competence, timeliness of IA report and management support to organizational performance. (see appendix D)

However, no significant relationship was found between IA independence, IA size and reporting line of IA and organizational performance for direct relationship.

Model One: Showing Regression result for Direct Relationship

Table 4.18
Regression Results for Direct Relationship

	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t-stat	p-value	
Constant	1.729	0.150		11.549	0.00	
IA Competenc.	0.065	0.030	0.096	2.159	0.03*	Supported
IA Independ	0.055	0.046	0.070	1.203	0.23	Not Supported
IA Size	0.075	0.052	0.089	1.047	0.19	Not Supported
Reporting Line	0.007	0.036	0.011	0.187	0.85	Not Supported
Timeliness IA	0.081	0.029	0.131	2.792	0.01*	Supported
Top Mgt Support	0.319	0.043	0.461	7.388	0.00**	Supported
R ²	0.496	Adj. R ²	.487			
Prob.	0.000					
F-Stats	50.29					
Obs	313					

** indicates statistical significance at 1%

* indicates statistical significance at 5%

Dependent Variable: Organizational Performance.

Direct relationship between IA competency and organizational performance

The result for individual regression analysis indicates IA competence has positively and significantly impact on organizational performance ($\beta = 0.096$, $p = 0.03$).

Direct relationship between IA independence and organizational performance

The result for individual regression analysis indicates IA independence does not positively and significantly related to organizational performance ($\beta = 0.070$, $p = 0.23$).

Direct relationship between IA size and organizational performance

The result for individual regression analysis indicates IA size is not positively and significantly related to organizational performance ($\beta = 0.089$, $p = 0.19$).

Direct relationship between IA reporting line and organizational performance

The result for individual regression analysis indicates that IA reporting line is not positively and significantly related to organizational performance ($\beta = 0.011$, $p = 0.85$).

Direct relationship between timeliness of IA report and organizational performance

The result for individual regression analysis indicates that timeliness of IA report is positively and significantly related to organizational performance ($\beta = 0.131$, $p = 0.01$).

Direct relationship between top management support and organizational performance

The result for individual regression analysis indicates that top management support is positively and significantly related to organizational performance ($\beta = 0.461$, $p = 0.00$).

4.10.2 Moderating Effects: Top Management Support and IAQ Dimensions and Organizational Performance

Top management support is considered in this study to moderate the relationship between IA competency, IA independence, IA size, IA reporting line and timeliness of IA report and the organizational performance. The moderating variable is expected to strengthen the relationship between the predicting variables and the criterion variable for maximum effectiveness (Baron & Kenny, 1986).

Table 4.19 below shows multiple regression analysis was computed for the relationship of the independent variables of IA competence and top management support, IA independence and top management support, IA size and top management support, IA reporting line and top management support and timeliness of IA report and top management support on the dependent variable to organizational performance. The results shows a significant regression was found ($F= 33.73$, $p = .000$). The results also as indicated in table 4.19 with predictors that were significant, $R^2 = 0.55$ and Adjusted $R^2 = 0.54$. This indicates that IA competence and top management support, IA independence and top management support and IA size and top management support have significant impact on organizational performance. The result of the model demonstrated that the interaction of the variables with top management support have positive relationship on organizational performance in such a way that the regression equation predicted almost (36 %) contribution of IA competence and top management support, IA independence and top management support, IA size and top management support to organizational performance. (see appendix D, page 248).

However, no significant relationship was found in the interaction between reporting line of IA and top management support and timeliness of IA report and top management support to organizational performance.

Model Two: Showing the Regression Result for Moderating Relationship

Table 4.19
Regression Results for the Moderating Relationship

	Unstandardized Coefficients		Standardized	t-stat	p-value	
	Coefficient	Std. Error	Beta			
Constant	1.077	0.524		2.056	0.04	
IA Compet.	0.538	0.158	0.792	3.397	0.00**	Supported
IA Independ.	0.420	0.141	0.531	2.972	0.02*	Supported
IA Size	-0.091	0.149	-0.161	-0.609	0.54	Not Supported
Reporting Line	0.096	0.162	0.149	0.590	0.55	Not Supported
Timeliness IA	0.319	0.138	0.515	2.319	0.02*	Supported
T,Mgt Support	0.512	0.172	0.739	2.971	0.00**	Supported
IAC*TMS	0.152	0.047	1.246	3.231	0.00**	Supported
IAI*TMS	0.156	0.042	1.310	3.670	0.00**	Supported
IAS*TMS	0.552	0.401	0.554	2.296	0.023*	Supported
RLIA*TMS	-0.018	0.048	-0.154	-0.381	0.70	Not Supported
TIAR*TMS	-0.080	0.042	-0.675	-1.915	0.06	Not Supported
R ²	0.55	Adj. R ² .54				
Prob.	0.000					
F-Stats	33.73					
Obs.	313					

* *indicates statistical significance at 1%

* indicates statistical significance at 5%

Dependent Variable: Organizational Performance.

H1: *There is significant relationship between IA competency and organizational performance.*

In model two, the result for the relationship between IAC and organizational performance is significant at ($\beta = 0.792$, $t = 3.397$, $p = 0.00$), hence the hypothesis which states that there is significant relationship between IA competence and organizational performance is **supported**.

H2: *There is significant relationship between IA independence and organizational performance.*

In model two, the result for the relationship between IA independence and organizational performance is significant at ($\beta = 0.531$, $t = 2.972$, $p = 0.00$), hence the

hypothesis which states that there is significant relationship between IA independence and organizational performance is **supported**.

H3: There is significant relationship between IA size and organizational performance.

In model two, the result for the relationship between IA size and organizational performance is not significant at ($\beta = -0.161$, $t = -0.609$, $p = 0.54$), hence the hypothesis which states that there is significant relationship between IA size and organizational performance is **not supported**.

H4: There is significant relationship between IA reporting line and organizational performance.

In model two, the result for the relationship between IA reporting line and organizational performance is not significant at ($\beta = 0.149$, $t = 0.590$, $p = 0.55$), hence the hypothesis which states that there is significant relationship between IA reporting line and organizational performance is **not supported**.

H5: There is significant relationship between timeliness of IA report and organizational performance.

In model two, the result for the relationship between timeliness of IA report and organizational performance is significant at ($\beta = 0.515$, $t = 2.319$, $p = 0.02$), hence the hypothesis which states that there is significant relationship between timeliness of IA report and organizational performance is **supported**.

H6: There is significant relationship between top management support and organizational performance.

In model two, the result for the relationship between top management support and organizational performance is significant at ($\beta = 0.739$, $t = 2.971$, $p = 0.00$), hence the hypothesis which states that there is significant relationship between top management support and organizational performance is **supported**.

H7a: Top management support moderates the relationship between IA competence and organizational performance

The result for the regression analysis indicates that interaction of IA competence and top management support has significantly makes impact on organizational performance ($\beta = 1.246$, $t = 3.231$, $p = 0.00$), hence the hypothesis which states that there is significant relationship between interaction of IA competence and top management support and organizational performance is **supported**.

H7b: Top management support moderates the relationship between IA independence and organizational performance

The result for the regression analysis indicates that interaction of IA independence and top management support is positively and significantly makes impact on organizational performance ($\beta = 1.310$, $t = 3.670$, $p = .000$), hence the hypothesis which states that there is significant relationship between interaction of top management support and IA independence and organizational performance is **supported**.

H7c: Top management support moderates the relationship between IA size and organizational performance

The result for the regression analysis indicates that interaction of IA size and top management support is positively and significantly makes impact on organizational performance ($\beta = 0.554$, $t = 2.296$, $p = 0.023$), hence the hypothesis which states that

there is significant relationship between interaction of IA size and top management support and organizational performance is **supported**.

***H7d:** Top management support moderates the relationship between IA reporting line and organizational performance*

The result for the regression analysis indicates that interaction of IA reporting line and top management support does not positively and significantly makes impact on organizational performance ($\beta = -0.154$, $t = -0.381$, $p = 0.70$), hence the hypothesis which states that there is significant relationship between interaction of IA reporting line and top management support and organizational performance is **not supported**.

***H7e:** Top management support moderates the relationship between timeliness of IA and organizational performance*

The result for the regression analysis indicates that interaction of timeliness of IA report and top management support does not positively and significantly makes impact on organizational performance ($\beta = -0.675$, $t = -1.913$, $p = 0.06$), hence the hypothesis which states that there is significant relationship between interaction of timeliness of IA and top management support and organizational performance is **not supported**.

Table 4.20
Summary of the Hypotheses

S/N	Hypothesis	Result
H1	There is significant relationship between Internal Audit competency and organizational performance	Supported
H2	There is significant relationship between Internal Audit independence and organizational performance	Supported
H3	There is significant relationship between internal audit size and organizational performance	Not Supported
H4	There is significant relationship between internal audit reporting line and organizational performance	Not Supported
H5	There is significant relationship between timeliness of internal report and organizational performance	Supported
H6	There is significant relationship between top management support and organizational performance	Supported
H7a	Top management support moderates the relationship between internal audit competence and organizational performance	Supported
H7b	Top management support moderates the relationship between internal audit independence and organizational performance	Supported
H7c	Top management support moderates the relationship between internal audit size and organizational performance	Supported
H7d	Top management support moderates the relationship between reporting line and organizational performance	Not Supported
H7e	Top management support moderates the relationship between timeliness of internal audit and organizational performance	Not supported

4.11 Summary

The chapter is all about the findings and interpretation of the empirical outcome of the study. The chapter began with the data collection process and survey response, non-response bias/self-selection bias, data cleaning and descriptive analysis of the respondents, It is also followed by giving the preliminary factor analysis to determine the communalities, factor loadings and Cronbach's Alpha of the underlined factors. Psychometric properties of the measure were assessed to determine the reliability and construct validity. Descriptive statistical mean and standard deviation were used to describe each of the constructs. Assumptions of

multiple regressions were provided to determine the level of normality, linearity, multicollinearity and homoscedascity. Correlations test was conducted, and multiple regression and hypotheses testing were also conducted to determine the direct influence of the constructs and indirect influence with the moderating variable to the dependent variable. The overall result of the findings reveals that 3 out of the 6 hypotheses tested on direct relationship are significantly positive. The result also indicates that 3 out of the 5 hypotheses tested on the indirect relationship, that is with the interaction of a moderating variable of top management support are significantly positive.



CHAPTER 5:

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter contains discussions, conclusions, and recommendations from the study. The components of the chapter are derived based on the findings of the study. Discussions have been made in line with relevant studies involving the variables under consideration. Similarly, it explains the theoretical and practical implications of the study and its limitations. The concluding section was drawn based on the findings and recommendations from the study. Recommendations for further studies have been made in line with research findings.

5.2 Recap of the Study

The present study was conducted to examine the relationship between IAQ dimensions, consisting of IA competency, IA independence, IA size, IA reporting line, and timeliness of IA report with organizational performance in the context of Nigerian federal universities. The study was also conducted to determine the moderating effect of top management support on the relationship of those variables to organizational performance.

A quantitative method of data collection was employed, which involved the use of a structured questionnaire adapted from previous studies. Self-administration of questionnaires was employed which allows the researcher to have direct contact with the respondents. A total of 468 sets of questionnaires were distributed to internal

auditors at senior level in Nigerian federal universities, out of which 342 sets of questionnaire were returned duly completed. A total of 313 were retained for further analysis, leaving 29 sets of questionnaires that were rejected. The data was keyed into SPSS *version 20*. Both missing values and outliers were checked and the results indicated that no missing values were detected. Principal component analysis was equally conducted to enable the assessment of the factor validity of the instruments.

In a similar development, reliability test was conducted for the purpose of assessing the internal consistency of the measures through Cronbach's Alpha. The hypotheses on direct relationship were tested using multiple linear regression. The hypotheses on indirect relationship (moderation) were tested using hierarchical regression analysis. The result of the hypotheses testing for the direct relationship through the use of multiple regression analysis shows that four hypotheses; H1, H2, H5, and H6 are supported, indicating a significant relationship with organizational performance. At the same time, hypotheses H3 and H4 are not supported, indicating that there is no direct and significant relationship with organizational performance. (See Table 4.19).

However, the multiple regression showed that top management support moderates the relationship between IA competency, IA independence, and IA size with organizational performance. Therefore, hypotheses H7, H8, and H9 are supported while the result of the hierarchical regression for H10, and H11 were not supported. This indicates that top management support does not moderate the relationship between IA reporting line, timeliness of IA report with organizational performance (see Table 4.19).

5.3 Discussions

This section covers the discussions of the findings involving relationships between IA competence, IA size, IA independence, IA reporting line, and timeliness of IA reporting with organizational performance. Furthermore, discussions are also provided regarding the moderating effect of top management support in the relationships between IA competence, IA size, IA independence, IA reporting line, and timeliness of IA reporting with organizational performance.

Similarly, the discussion on the study has focused on the research questions stated in Chapter One. Research questions are answered appropriately. The research questions consist of the following:

1. Is there any significant relationship between IA competency and organizational performance in Nigerian federal universities?
2. Is there any significant relationship between IA independence and organizational performance in Nigerian federal universities?
3. Is there any significant relationship between IA size and organizational performance in Nigerian federal universities?
4. Is there any significant relationship between IA reporting line and organizational performance in Nigerian federal universities?
5. Is there any significant relationship between timeliness of IA report and organizational performance in Nigerian federal universities?
6. Is there any significant relationship between top management support and organizational performance in Nigerian federal universities?

7. Does top management support moderates the relationship between IA competency, IA independence, IA size, IA reporting line and timeliness of IA report and performance of Nigerian federal universities?

5.3.1 Direct Relationships

5.3.1.1 Relationship between IA competency and organizational performance

The first research question of the study is stated as; is there any significant relationship between IA competency and organizational performance in Nigerian federal universities? The aim of the question is to assess whether IA competence can be a good predictor towards the performance of Nigerian federal universities. This also represents the first research hypothesis that *there is a significant relationship between IA competency and organizational performance*. The result for individual regression analysis indicates IA competence is positively and significantly related to organizational performance ($\beta = 0.96$, $t = 2.159$, $p = 0.03$), therefore, the hypothesis which states that there is a significant relationship between IA competence and organizational performance is **supported**.

The findings of the study involving relationship between IA competency and organizational performance show a significant impact of the IA competence on organizational performance, indicating that, with a knowledgeable, experienced, and skillful audit staff, the performance of the Nigerian federal universities will improve. The findings demonstrate that the competence of IA staff will certainly help organizations meet their financial objectives.

The finding is consistent with Milgrom and Roberts (1992) under the resource dependency theory which indicates that human capital of audit firms is embodied in the expertise and experience of auditors, and is a critical input in determining their audit quality that greatly impacts organizational performance.

The study is also consistent with previous studies (Unegbu & Kida, 2011; Omar & Abubakar, 2012; Alzeban & Gwillian, 2014; Vijayakumar & Nagaraja, 2012; Radu, 2012; Badara & Saidin, 2013) that indicated a significant positive relationship on the relationship of IA competency and organizational performance and its contribution to public sector organizations. The IIA practice advisory 1210 – 1 states that IA should possess required knowledge, qualification, experience, and other competencies for them to perform effectively. There is certainly a need to have and apply new ideas, approaches, and techniques in order to improve and add value to the organization (Buregeya, 2007). Badara and Saidin (2014), Al-Matari, A-Swidi and Fadzil (2014), Lenz and Hahn (2015) and Lawrence, *et al.* (2016) established a positive and significant relationship between IA competency and organizational performance.

The study is in line with the resource dependency theory that believes competency is important for coping with and solving critical problems of the organization that arise from its environment. Hence, organizations have to employ competent persons capable of handling these important activities. Organizations are assumed to comprise internal and external alliances which emerge from social exchanges that are formed to influence and control behavior to achieve effective organizational performance (Ulrich & Barney, 1984).

Therefore, the present study recognizes that the professional competence of employees in the IA department impacts the performance of the Nigerian universities. The professional competence can enhance the capacity and efficiency of IA staff. The competence will enable them to detect fraud and fraudulent activities. The competence correlates with task performance justifying that IA staff with adequate competence in the universities are capable of undertaking audit function confidently.

5.3.1.2 Relationship between IA independence and organizational performance

The second research question of the study is presented as; is there any significant relationship between IA independence and organizational performance in Nigerian federal universities? The aim of the question is to assess whether IA independence can be a good predictor towards the effective performances of Nigerian federal universities. This also represents the second research hypothesis that *there is a significant relationship between IA independence and organizational performance*. The result for the direct individual regression analysis indicates IA independence is not positively and significantly related to organizational performance at ($\beta = 0.070$, $t = 1.203$, $p = 0.23$), therefore the hypothesis which states that there is a significant relationship between IA independence and organizational performance is **not supported**.

IA independence is one of the most critical elements for achieving IAQ which stimulates the efficiency and effectiveness of organizational performance. It is seen as a key driver of the IA function (Alzeban &Gwilliams, 2014). IA independence,

IIA practice advisory board is an instrument that allows the IA department to function and conduct its responsibilities without interference.

The findings of this study on the direct relationship between IA independence and organizational performance is not in line with previous studies by Vanasco (1996); Ebrahim (2001); Buregeya (2007); Christopher (2009); Hutchinson, *et al.* (2010); Suwaidan and Qasim (2010); Nam, 2011; Bliss *et al* (2011); Mohammed (2012); Yasin and Nelson (2012); and Christopher (2014) that indicated positive and significant relationships of the constructs. Also, in other studies conducted (Haile and Mariam, 2014; Alwala and Biroari, 2015; George, *et al.*, 2015; Roussy and Brivot, 2016; Roussy and Brivot, 2016), positive correlations between IA independence and share performance were found. These studies were conducted in advanced countries where IA receives considerable attention from chief executives.

Studies that were conducted in developing countries (Kaibel, 2012; Enofe, *et al*, 2013; Adeyemi *et al*, 2012; Fagbemi *et al*, 2013; Ojong and Ekponta, 2014) did not find significant relationships between IA independence and organizational performance which means that IA receives less attention in developing countries. Management of Nigerian federal universities is yet to value the concept of internal auditing. Independence of internal auditors in Nigerian federal universities is partial or not sufficient to enable it to perform effectively for the realization of efficient organizational performance.

The study is not in line with the stewardship theory that argues that people are collectively minded and pro-organization rather than individualistic and, therefore,

work towards the attainment of organizational, group, or social goals. These attributes give them high level of satisfaction due to managerial attitude towards IA. People in an organization should be allowed to participate independently. Although, the theory is still relevant because of its view that members of the organization are being integrated in decision-making processes pertaining the activities of the organization for effective governance structure (Mulili & Wong, 2011).

5.3.1.3 Relationship between IA size and organizational performance

The third research question of the study is stated as; is there any significant relationship between IA size and organizational performance in Nigerian federal universities? The aim of this question is to assess whether IA size can be a good predictor towards the effective performance of Nigerian federal universities. This also presents the third hypothesis which indicates *that there is a significant relationship between IA size and organizational performance*. The result for individual and direct regression analysis indicates IA size is not positively and significantly related to organizational performance ($\beta = 0.089$, $t = 1.047$, $p = 0.19$), hence the hypothesis which states that there is a significant relationship between IA size and organizational performance is **not supported**. This means there is no direct and significant relationship between IA size and organizational performance.

The number of resources in auditing is very crucial. Mihret and Yismaw (2007) stated that organizations including universities should plan, manage, and allocate their resources such as adequate number of auditors, time, finances as well as employees' commitment before performing the audit. The result of the study is in line with findings by Modibo (2015) who found that IA department of tertiary

institution in Adamawa state, Nigeria, is not significant. This is because they lack independence, top management support, and are in short supply of adequate staff. This indicated that the management of public tertiary institutions, especially those in developing countries, have to ensure appropriate support to IA departments to enable it to meet the organization objectives. Also, some studies (Kaibel, 2012; Enofe, *et al*, 2013; Adeyemi *et al*, 2012; Fagbemi *et al*, 2013; Ojong and Ekponta, 2014) did not find a significant relationship between IA size and organizational performance on the grounds of so many managerial factors. Involvement of top management in organizational operations is very vital for achieving effective performance.

5.3.1.4 Relationship between IA reporting line and organizational performance

The fourth research question of the study is stated as; is there any significant relationship between IA reporting line and organizational performance in Nigerian federal universities? The aim of this research question is to assess whether the reporting line of IA can be a good predictor towards effective performance of Nigerian federal universities. This also represents the fourth research hypothesis that *there is a significant relationship between IA reporting line and organizational performance*. The result for the individual regression analysis indicates that the IA reporting line is not significantly related to organizational performance ($\beta = 0.011$, $t = 0.187$, $p = 0.85$), hence the hypothesis which states that there is a significant relationship between IA reporting line and organizational performance is **not supported**.

The insignificant relationship found in this study is a clear indication that determinants of IA department reporting line is an established organizational

procedure and is more on policy making issues in the Nigerian federal universities. Nigerian federal universities' organogram defined reporting relationship for each functional department which means that the IA department reports only to the chief executive (Vice-Chancellor). All Nigerian federal universities do not have an audit committee in their council. The reporting line is already determined, whereby IA reports only to the chief executive.

5.3.1.5 Relationship between timeliness of IA report and organizational performance

The fifth research question of the study is stated as; is there any significant relationship between timeliness of IA report and organizational performance in Nigerian federal universities? The aim of this research question is to assess whether the timeliness of IA report has any significant influence on the performance of Nigerian federal universities. This represents the fifth research hypothesis where it is stated that *there is a significant relationship between timeliness of IA report and organizational performance*. The result for individual regression analysis indicates that the timeliness of IA report is positively and significantly related to organizational performance ($\beta = 0.131$, $t = 2.792$, $p = 0.01$), hence the hypothesis which states that there is a significant relationship between timeliness of IA report and organizational performance is **supported**.

Timeliness of IA report is considered one of the critical factor that affects the usefulness of information intended to make decision available to the end users to the period it takes in conducting the audit process (Sekaran & Bougie, 2010). It is an important element that justifies IAQ. Organizations, on the other hand, are interested in having complete, transparent, and very reliable information about their activities

(Al-Mahateh, 2011). Timeliness of IA report is directly associated with the effectiveness of IA function. Therefore, to ensure efficient IAQ, timely reporting to end users and management response is considered an important element and it requires in-depth research. One of the overall measure of IAQ is timeliness of IA report (Al-shetwi *et al*, 2011). Timelines of IA report is the period at which specific report is issued to the organization when it is due. It is as vital as the timely deliverance of information to executive management in risk management control.

The result of the regression analysis for the direct relationship of timeliness of IA report and organizational performance is in line with previous studies (Al-Mahateh, 2011; Al-Shetwi *et al*, 2011; Kiabel, 2012; Al-Matari, 2013; Mbuti, 2014; Mahzan and Hassan, 2015 and Modibo, 2015) which shows a significant relationship between timeliness of IA report and the performance of organizations. This study reveals that time taken to provide financial report on the financial dealings has a significant effect on the performance of Nigerian federal universities.

The study is also in tandem with the stewardship theory which recognizes a range of non-profit motives for organizational leader's behaviors which include, among others, achievements and recognition, satisfaction out of successful performance, respect for the authority, and work ethics in dealing with sensitive information and reports.

5.3.1.6 Relationship between top management support and organizational performance.

The sixth research question of the study is presented as; is there any significant relationship between top management support and organizational performance in

Nigerian federal universities? The aim of the question is to assess whether top management support can be a good predictor towards the effective performance of Nigerian federal universities. This also represents the sixth research hypothesis that *there is a significant relationship between top management support and organizational performance*. The result for the direct individual regression analysis indicates top management support is positively and significantly related to organizational performance at ($\beta = 0.461$, $t = 7.388$, $p = 0.00$), therefore the hypothesis which states that there is a significant relationship between top management support and organizational performance is **supported**.

The study is consistent with several studies (Cohen & Sayag, 2010; Alzeban & Sawan, 2013; Mihret & Yismaw, 2007; Mahzan & Hassan, 2015) that indicated management support is linked to provision of efficient resources to IA in the area of staff training, recruitment, and professional development to improve their competency as well as having an independent IA department. Cohen and Sayag (2010) stated that the effect of management support is consistent with private or public organizations' effectiveness in their exploratory studies. The study further stated that even the determinants of IAQ such as competency, independence, IA size, and quality of work performed by IA are derived from the support of top management. Independence of IA, career development, hiring qualified and experienced staff, and allocating sufficient resources to IA department are all the results of decision made by top management. Alzeban and Gwilliams (2014) further showed that top management support has a significant influence on IA size. Baharud-din *et al.* (2014) stated that top management contributes to the variation of IAQ and is obviously very significant in influencing organizational performance.

Alzeban and Gwilliams (2014) further stated that top management support has a significant influence on IA size based on findings from the survey they conducted on 203 internal auditors in Saudi Arabia public sector organizations. IA required to have the right number of qualified members of staff. This can only be achieved by support from top management (Cohen & Sayag, 2010). Al-Twaijry (2003) indicated that management support to IA in terms of resourcing and budgetary allocation is so significant in determining IAQ. Management support for IA is so vital for ensuring that IA have the resources needed to meet their responsibilities (Christopher, 2014). Top management support has, for quite a long time, been considered a determinant factor for successful IAQ. Management attitude towards the activities of IA has significant influence on organizational performance (Alzeban & Gwilliams, 2014).

The result of the study is in line with the stewardship theory which postulates that managers are not motivated by their individual needs but, rather, are stewards whose motives are aligned with the objectives of the organization. It holds that organizations are social entities that are concerned with the welfare of stakeholders and members of the organization having a relationship with that organization and are affected by the achievement or performance of that organization. Stewardship theory is of the view that organizational leaders consider the right of stakeholders and members of the organization when taking decisions (Rothman & Friedman, 2001). The participation of stakeholders and senior management in organizational decision-making enhances organizational efficiency and reduces misunderstandings and conflicts of interest (Rothman & Friedman, 2001).

5.3.2 Moderating effect of top management support in the relationship between IAQ dimensions and organizational performance

The significance of top management support intervention in this study indicates the extent to which top management support remains a crucial factor in the attainment of IA objectives and performance of federal universities in Nigeria. The findings indicate that the influence of top management support is strong and consistent with relevant theories underpinning this study and other relevant literature. Cohen & Sayag (2010) indicated that top management support appears to be an important moderator in the relationship between IAQ dimensions comprising of IA competence, IA size, IA independence, IA reporting line, and timeliness of IA report with organizational performance in the federally-owned universities in Nigeria.

Research questions 7, as mentioned earlier, are aimed at finding out whether top management support can strengthen the relationship of IA competence, IA independence, IA size, IA reporting line, and timeliness of IA report with organizational performance. These represent subsequent research hypotheses that *top management support moderates the relationship between IA competence, IA independence, IA size, IA reporting line, timeliness of IA report and organizational performance*. Multiple regressions were conducted to test these hypotheses as discussed below.

5.3.2.1 Moderation Result between IA competence, Top Management Support and Organizational Performance.

The result of the moderation test of top management support on the relationship between IA competency and organizational performance (H7a) indicated that the interaction of IA competence and top management support positively and

significantly impacts organizational performance with values ($\beta = 1.246$, $t = 3.231$, $p = 0.00$), hence the hypothesis (H7a) top management support moderates the relationship between IA competence and organizational performance is **supported**.

Top management support represents a key factor for the success of almost all programmes and processes within organizations including IA. Management acceptance of and support for IA is considered a critical success factor to IAQ (Cohen & Sayag, 2010). Members of IA with high qualification, skills, and experience are capable of dealing with issues in the entire organization. The findings of the study is also similar to that of Hutchinson and Zain (2009) who explored the association between IA experience, accounting qualification, and firm performance (ROA) with growth opportunities and audit committee independence in Malaysia. Similarly, research findings of Prawitt, Smith and Wood (2009) are also very similar with regards to the association between IAQ (experience and qualification) and earning management. Besides that, qualification and skill are also part of the IA competence on the side of employees.

The result of the study is consistent with previous studies (Alzeban & Gwilliams, 2014; Cohen & Sayag, 2010; Alzeban & Sawan, 2013; Mihret & Yismaw, 2007; Mahzan & Hassan, 2015) which indicate that management support is linked to the provision of efficient resources to IA in the area of staff training, recruitment and professional development to improve on their competency and having an independent IA department. Also Mat Zain, Subramaniam and Stewart (2006) maintained that skilled auditors are more able to provide advice in order to complete audits, to find consistent solutions based on previous experiences, and to deal with

complex and conflicting situations. In an empirical examination of determinant of IA effectiveness; IA qualification, experience, and professional proficiency, Cohen and Sayag (2010) conducted a study in Israeli organizations to examine data collected from 108 Israel organizations. The result of the study using correlation and regression analysis indicated a significant relationship of IA competency with organizational performance which is in line with the present study.

The study is in line with the resource dependency theory which believes that competency is a must for coping with and solving the critical problems of the organization that arise from its environment. Resource dependency theory postulates that organizations can manage resources by engaging a competent source of its limitation, thus challenging the sovereignty for support. It also provides that power is based on the control of competent human resources that are considered strategic within the organization (Pfeffer & Salancik, 1978).

5.3.2.2 Moderation Result between IA Independence, Top management Support and Organizational Performance.

The result of multiple regression analysis for IA independence indicates that IA independence and interaction of top management support (H7b) positively and significantly impacts organizational performance with values ($\beta = 1.310$, $t = 3.670$, $p = 0.00$), hence the hypothesis (H7b) top management support moderates the relationship between IA independence and organizational performance is **supported**. This shows that the interaction of moderating variable of top management support impacted the relationships positively.

The findings of the study demonstrates that top management of Nigerian federal universities have a significant impact on IA independence as a fundamental issue of importance in realizing effective and efficient performance in their organizations. The independence remains crucial in providing a better result to the organizations. This study established that independence of IA department affects the performance of Nigerian universities to a certain extent. The finding indicates that an IA department must be fully independent in terms of personnel and operational activities of an organization. The present study found that independence of IA department enables the department to function in line with formalized principles of IA by exercising its powers within the university system. In conducting audit function in the university, the independence of internal auditors remains the core principle and integrity of the department, its opinions, conclusions, and recommendations will stronger and more effective in the universities.

The findings of the study is consistent with previous studies which examined this relationship (Mihret & Yismaw, 2007; Ahmad *et al*, 2009; Cohen & Sayag, 2010; Alzeban & Gwilliams, 2014; Alzeban & Sawan, 2013; Badara & Saidin, 2013; and Baharuddin *et al*, 2014; Alzeban & Gwilliams, 2014) which indicated that top management support is a very vital determinant of IAQ and has a great and positive impact on IA independence's relationship with organizational performance.

The initial result for the regression analysis for testing the direct relationship between IA independence and organizational performance indicated an insignificant relationship with organizational performance. (See Table 4.18). However, with the interaction of the moderating variable of top management support, the result

indicated a significant and positive relationship with organizational performance. (See Table 4.19). This shows the effect of top management support in improving the effectiveness and efficiency of an organization. Therefore, top management support remains a precondition for the attainment of IA mandate that contributes to the effectiveness of Nigerian federal universities.

Stewardship theory underpinned this finding due to the fact that stakeholders and members of the organization are being integrated in decision-making processes pertaining the activities of the organization for effective governance (Mulili & Wong, 2011). It argues that people are collectively minded and pro-organization rather than individualistic and, therefore, work towards the attainment of organizational goals.

5.3.2.3 Moderation Result between IA Size, Top Management Support and Organizational Performance.

The result for the multiple regression analysis on IA size indicates that IA size and interaction of top management support (H7c) positively and significantly impacts the organizational performance with values ($\beta = 0.554$, $t = 2.296$, $p = 0.023$). Therefore, the hypothesis which states that top management support moderates the relationship between IA size and organizational performance is **supported**. Although, when tested on the direct relationship, no significant relationship was found. This shows that the interaction of the moderating variable of top management support has significant impact on the relationships between IA size and organizational performance.

In line with the Resource Dependence Theory (RDT), a large size of IA staff provides superior performance due to the various skills, knowledge, and expertise contributed through discussions. Moreover, a large size of staff could provide diverse ideas that could help organisations to acquire essential resources and reduces environmental risks. The positive correlation of IA size and organizational performance suggests that size of IA staff in the university is a prerequisite for achieving the mandate of the department and performance as well. The size of IA staff determines effective division of labour and allocation of functions properly. The size of staff enables IA departments to comply with auditing regulations, thereby achieving the expectations and subsequently achieving high performance in the university, collectively.

This study is conducted in Nigerian federal universities and the result in the relationship indicated a positive and significant relationship with involvement of top management of the institution. Therefore, the study conforms to the recommendations by Kiabel (2012), Faruk and Hassan (2014) and Christopher (2014). Also, a recent study conducted by George *et al.* (2015) shows that top management is positively associated with the IA size and IAQ and has significant impact on organizational performance. The Institute of Internal Auditor Research Foundation (2004) further stated that management attitude towards IA can have positive effects on the IA behavioral attitude towards their responsibilities. Mahzan and Hassan (2015) supported the findings of this study where they stated that senior management support and IA resourcing were viewed as a set of interdependent processes for achieving organizational performance.

The result for regression analysis for testing the direct relationship between IA size and organizational performance indicated an insignificant relationship with organizational performance. (See Table 4.18). However, with the interaction of moderating variable of top management support, the result indicated a significant and positive relationship with organizational performance. (See Table 4.19). This shows the effect of top management support in improving the effectiveness and efficiency of an organization. Therefore, top management support remains a precondition for the attainment of mandate and effectiveness of Nigerian federal universities.

The study is consistent with the resource dependency theory which considers human or material resources as key ingredients for any successful organization (Hillman, Withers and Collins, 2009). Resources are key to organizational success and that access and control over resources is the basis of power. Resources are often controlled by organizations not in control of the organization needing the resources (Ma'ayam & Cameli, 2016).

The significance of top management support intervention in the study indicates the extent to which top management support remains a crucial factor in the attainment of IA objectives and performance of federal universities in Nigeria.

5.3.2.4 Moderation Result between IA Reporting Line, Top Management Support and Organizational Performance.

The result for multiple regression analysis on IA reporting line indicates that IA reporting line and interaction of top management support (H7d) does not significantly impact organizational performance with values ($\beta = -0.154$, $t = -0.381$,

p =0.70). The hypothesis which states that there is a significant relationship between IA reporting line and interaction of top management support and organizational performance is **not supported**. The study, therefore, reveals that reporting pattern of public organizations, particularly federal universities in Nigeria, were determined in the statute establishing those universities. Top management has no influence over the reporting line. It is a policy issue, not a managerial issue.

The study is in line with a previous research by Rupsys (2005) who found that reporting lines of IA activity are generally not organized and often very conflicting. Like in Nigerian federal universities, the reporting line of IA is pre-determined from the statute establishing the institutions. Mihret and Yesmew (2007) revealed that the distribution of audit reports in public institutions is only limited to the chief executive.

The finding of this study is not consistent with the findings of (Cohen & Sayag, 2010; Alzeban & Sawan, 2013) and Christopher (2014) who found that functional a reporting line to the audit committee of the university existed and, with this reporting relationship, IA secured independence. Christopher (2014) further revealed that management provides positive decisions that will enhance IA independence and integrity by positioning IA strategically in the organizational structure. However, management intervention alone cannot influence change in the organizational statute due to national policy issues. NUC, being the apex regulatory agency to Nigeria universities, has the mandate to affect changes to the existing structure after receiving inputs from the university Council.

5.3.2.5 Moderation Result between Timeliness of IA Report, Top Management Support and Organizational Performance.

The result of multiple regression analysis for timeliness of IA report (H7e) indicates that interaction of top management support in the relationship of timeliness of IA report and organizational performance do not have a significant relationship ($\beta = -0.675$, $t = -1.916$, $p = 0.06$), Therefore, the hypothesis which states that top management moderates the relationship between timeliness of IA report and organizational performance is **not supported**.

This may be due to social, political and managerial interference in audit reports in Nigeria federal universities which normally leads to a lot of negative impact in timeliness of IA report coupled with several internal managerial issues. In any case of adverse reports from IA department, top management may normally delay the outcome of such reports, especially when the reports affect the top management directly. Top management do not value IA reports. Therefore, the time taken to issue the reports and the respective response from management is not of any concern to top management. IA is often frustrated when it comes to conducting and issuing IA reports. Managerial attitude towards timeliness of IA report have substantial negative impact to the organizational performance because, in most cases, the report affects the top management.

Although, studies conducted by Sparks (2011); Soh and Matinov-Bennie (2011); Al-Matarneh(2011);Shukeri & Nelson (2014);Mahzan and Hassan (2015) indicated a significant relationship between the constructs. However, such studies were conducted in developed countries where IA reporting lag is considered as effective

measures toward organizational performance and IA reports are appreciated. However, in a study conducted by Shehu (2014) where direct relationship between knowledge management and firm performance was investigated, the result of the direct relationship was found to be supported. In the same study, after applying the moderating variable of business environment, the result was not supported. This was also applied to other variables of entrepreneurship in the same study.

Timeliness of IA report remains one of the critical factors for management decision in conducting audit process (Alzeban & Gwilliams, 2014). In Nigerian federal universities, social, political, and managerial issues have great impact on reporting time lag.

5.4 Implications of the Study

The study has its own implication to practice. The findings of the study implies that Nigerian federal universities are capable of achieving high performance financially, administratively, and in academic output with competent and independent audit as well as a sizeable number of staff. These audit qualities help the personnel in the audit department to carry out diligent and purposeful audit functions to ensure prudent and transparent financial transactions so that the resources for the universities are judiciously utilised.

Similarly, the study further demonstrates that top management support remains a key input for effective performance of the federal universities in Nigeria. The implication is that IA department may function and achieve its objectives to some extent with a competent, independent, and sizeable audit. However, a pronounce achievement and

attainment of effective and efficient performance of the Nigerian federal universities is only possible when there is maximum support from the top management.

5.4.1 Theoretical Implications

The theoretical implication of the study is that the study has succeeded in proving the theoretical underpinning of Steward Theory which argues that people are naturally motivated to work for others or for an organization to accomplish the task and responsibilities which they have been entrusted with (Donaldson & Davis, 1991; Contrafatton, 2014).

The intrinsic rewards comprise of reciprocity, reputational enhancement, job satisfaction, discretion, trust and anatomy, level of responsibility, stability and tenure, and mission alignment (Donaldson *et al*, 1991). The study implied that the theoretical proposition have been proven by the findings of the study that with competence, independence of IA, and an effective reporting line, audit staff in the university are allowed to practice and exercise their responsibilities according to the requirements of their training, thereby developing intrinsic motivation.

The study involving audit size, audit independence, and reporting activities and, more importantly, the top management support are consistent with the theoretical underpinning of Stewardship theory. The theory suggests that senior organizational members or the Board acting as stewards are more inclined to behave in the best interest of the organization rather than their own selfish interest. This is because, over time, both the staff and top management including the Board members tend to view the organization as an extension of themselves (Tosi, *et al*, 2003). The theory is

in the view that collectively minded and pro-organization support rather than individualistic members of staff work towards the attainment of organizational and departmental goals. This yields a high level of satisfaction (Ulrich, 2008). This is consistent with the findings of the study which show that the theoretical postulation allows the theory to have universal application, not only to private organizations, but also public organizations like the Nigerian federal universities.

The supportive underpinning theory of resource dependency theory equally succeeded in stating that control of resources is considered strategic within the organization (Pfeffer & Salancik, 1978). The theory believes that competency is a must for coping with and solving critical problems of the organization. Resource dependency theory was underpinned by the idea that resources, both human and material, are key to organizational success and that access and control over resources is the basis of organizational performance (Pfeffer & Salancik, 1978).

Previous studies have shown how IAQ dimensions consisting of IA competency, IA independence, IA size, IA reporting line, and timeliness of IA reports relate to organizational performance (Mihret, James & Mula, 2011, Alzeban & Gwilliams, 2014, Al-Matari *et al*, 2014, Faruk & Hassan, 2014 and Mahzan & Hassan, 2015). However, such studies do not consider their applicability in developing countries like Nigeria and, particularly, in the public sector organizations as the case of this study which examines their relationship with the performance of Nigerian federal universities. Most of those other studies were conducted in establishing financial performances in private organizations and mostly in developed countries.

The inconsistencies discovered in the previous research findings from some studies (Kaibel, 2012; Enofe, *et al*, 2013; Adeyemi *et al*, 2012; Fagbemi *et al*, 2013; Ojong and Ekponta, 2014) resulted in the employment of a moderating variable of top management support. This signified the contribution of this study in accordance to Baron & Kenny (1986) which stated that a moderator strengthens the relationship between the predicting variable and criterion variable for maximum effectiveness. Therefore, the model of this study contributed to the existing literature and bridged the gap of previous studies with a moderator which other studies, to the best knowledge of the researcher, failed to consider. The study added to the existing literature on internal auditing by measuring the relationship of IAQ with dimension of IA competency, IA independence, IA size, IA reporting line, and timeliness of IA report with organizational performance in Nigerian federal universities which has not been done, to the best knowledge of the researcher. Study on this model contributed to the existing literature by conducting it in Nigeria, which has not been done and, even if it exists, it is not documented.

5.4.2 Managerial and Policy Implications

The findings of the study provide clear evidence of the importance of IAQ dimensions in determining the performance of Nigerian federal universities. The findings also provide grounds for new policy initiatives by the regulatory agencies of Nigerian federal universities especially the issue of IA independence, reporting line of IA, staff development, and sizeable number of IA staff. The study identified areas that can strengthen the IA effectiveness among IA departments in Nigerian federal universities for better performance. The regulatory agencies such as the NUC, the Federal Ministry of Education and Office of Accountant General of the Federation,

Abuja, Nigeria have a lot of role to play in ensuring appropriate policy that can stimulate and improve the performance of Nigerian federal universities by empowering IA departments. This can be achieved through the Nigerian legislative arm of the government where applicable. The findings of the study demonstrate that the IAQ dimensions are instrumental to progress and the development of accountability, transparency, and financial prudence in Nigerian federal universities. This can be achieved with support from top management of the Nigerian federal universities through a judicious use of scarce resources. Therefore, the findings provide grounds for more synergy between IA department and university management in order to foster audit function for effective service delivery, efficiency, and performance of Nigerian universities. The findings are also relevant to various professional groups such as Institute of Chartered Accountants of Nigeria (ICAN) and Association of National Accountants of Nigeria (ANAN) in their policy formulation and practices.

These implications are in line with the findings of the study that empirically prove the significant and positive relationship between the IAQ dimensions of IA competence, IA independence, and IA size with the performance of Nigerian federal universities. The findings further empirically prove that top management support as a moderating variable of the study has a strong and positive significant relationship between the IAQ dimensions and effective performance of Nigeria federal universities. The findings serve as a way forward to the policy initiatives, professional inclusiveness, and also serve as a frame work for future reference to academia, students, and other stake holders.

5.5 Contribution of the Study

The study is important as it adds to the existing literature by studying the relationship of IAQ comprising of IA competence, IA independence, IA size, IA reporting line timeliness of IA report and organisational performance in federal universities in Nigeria. Most of the previous studies were carried out in private sector organisations. However, this study specifically paid attention to public sector organizations, with particular emphasis to federal universities in Nigeria. Similarly, the study pointed out clearly the impact of IAQ dimensions in predicting organisational performance. Moreover, the study revealed the magnitude of the capability of top management support in promoting organisational performance.

5.5.1 Practical Contribution

The study was conducted empirically and, therefore, identified the most important IAQ dimensions that could bring a positive improvement in performance of Nigerian federal universities. The study provides practical contribution as it has successfully identified the IA dimensions such as IA competence, IA independence, and IA size that relates to organisational performance and the magnitude of contribution for each.

The study addresses important issues in the literature related to the relationship between IAQ and organizational performance in the context of Nigerian universities. The study is useful in policy formulation and reviewing the existing rules and regulations by relevant regulatory ministries, agencies, and commissions. The study improves on the institutional, legal, and ethical framework of IA, especially the reporting time lag that has become prevalent in the Nigerian federal universities. The

study also contributed in ensuring that appropriate internal control is in place in Nigerian federal universities. The study creates awareness among the internal auditors in Nigerian public institutions and improves on their productivity, capability, and competence requirements in the management of Nigerian federal universities. And certainly would lead to a sustainable, stable, and well-structured IA department. The study is also useful to relevant professional bodies such as the Institute of Chartered Accountants of Nigeria (ICAN) and Association of National Accountants of Nigeria (ANAN).

5.5.2 Theoretical Contribution

Theoretically, the study has succeeded in justifying the employment of a moderating variable that signified its contribution in this study and to the body of knowledge which other studies, to the best of the researcher's knowledge, failed to do. This can be attested through the interaction of top management support as a moderator where IA independence and IA size shifts from an insignificant relationship to a positive and significant relationship with organizational performance.(see Table 4.19)

The study also succeeded in making the theories of stewardship theory and resource dependency theory as universal and relevant to all organisations irrespective of ownership, structure, and nature. Equally, the study has contributed to the literature by justifying the relationship between IAQ dimensions and organisational performance to the existing body of knowledge.

The study added to the existing literature on internal auditing by measuring the relationship of IAQ with dimension of IA competency, IA independence, IA size, IA

reporting line, and timeliness of IA report with organizational performance, particularly in Nigerian federal universities which has not been done before to the best knowledge of the researcher. Study on this model contributed to the existing literature by conducting it in Nigeria which has also not been done before to the best knowledge of the researcher.

5.5.3 Methodological Contributions

The present study employed an empirical approach in conducting the study and appropriate methodology that makes the work successful. The study further contributed to the methodology in the area of questionnaire administration. Specific items were adapted from previous studies conducted in other parts of the world such as studies conducted by Cohen and Sayag (2010) in Israel organization, Mihret (2010) in Ethiopia, Alzeban and Gwilliams (2014) in Saudi Arabia and many others. The study considers respondents with a satisfactory level of experience and adequate educational and professional qualifications in the audit department occupying senior position and data was collected using adapted instruments with satisfactory levels of internal consistency index. The data was collected from various federal universities in Nigeria through personal administration with the help of trained research assistants. The data collected was subjected to statistical tools consisting of descriptive and inferential statistics covering mean, standard deviation and regression analysis, respectively. Methodologically, the study considered top management support, not only as a variable, but as a moderating variable. It also adhered to ideal research procedures and all the ethical issues have been considered. The reporting and presentation of the findings have also been done appropriately,

allowing the study to meet the empirical requirement thereby making it genuine and credible.

5.6 Limitations of the Study

Despite the fact that the study provides substantial contribution to theory and practice in the area of internal auditing, yet, it has its own limitations. Firstly, the study considered 468 senior IA staff in Nigerian federal universities only with no consideration of states and private universities. That means the data were collected only from Nigerian federal universities because states and private universities in Nigeria have different funding entities and, therefore, generalisation of the findings could not be applicable to all Nigerian universities.

Moreover, the study found that top management support is a strong moderating variable that virtually improved the relationship between IAQ dimensions and organisational performance. However, the study did not clearly specify which of the top management officers influences the relationship the most. Moreover, in the study, the IA report to the chief executive and the university's audit committee of council indicated effective IA functions and IA independence. However, the study is short in providing which reporting line best for IA practice in securing IA independence.

Another limitation of the study is that, even though there are several controlled variables under this model that can measure the organizational performance, this study only measures the dimensions of IA competency, IA independence, IA size, IA reporting line, and timeliness of IA report. Other control variables were not measured such as IA objectivity, communication, motivation, audit committee,

quality of work performed by internal auditors, and many others. This is due to the fact that bringing all of the variables under the model of the study would be cumbersome. Some of them were discussed by other researches. Moreover, results from a few variables is often more realistic and can easily be analysed and interpreted.

Despite these limitations, this study demonstrates the ability to examine the relationship between the IAQ dimensions as stated earlier and organizational performance of Nigerian federal universities with a moderating variable of top management support.

5.7 Recommendations

5.7.1 Recommendations to Relevant Authorities

Based on the findings of the study, it is recommended that those variables found to be positive and significant (IA competence, IA independence, top management support and IA size) in the study be given more attention and mechanisms through which these qualities can be sustained and employed for more IA service delivery for the effective performance of Nigerian federal universities. The top management of the universities should always encourage IA competence by promoting knowledge and skills of the IA personnel through in-house training, workshops, seminars and even long-term training (study fellowships). It is recommended that top university management should always maintain competent, experience and adequate sizeable number of IA staff for effective and efficient performance.

Top management support is identified as a strong moderating variable in the relationship between IAQ and performance of Nigerian federal universities. It is, therefore, recommended that university top management encourages IA independence and always comply with and implement IA report as when due for better audit service as well as financial management efficiency. Since IA independence is found to be very significant and an important element in achieving university performance, it is therefore recommended for regulatory agencies to ensure such independence is in place in all Nigerian universities. This can certainly allow the IA departments to discharge their functions without interference.

It is empirically evident that IA competence, IA independence and IA size are important IA variables in determining effective performance of Nigerian federal universities in this study. Therefore, the university top management should take into consideration these dimensions concurrently by providing all the necessary support in all perspectives to the audit department. The study provides insight into the contribution of top management support being a key to the effectiveness of IA functions. It is recommended that top management of federal universities in Nigeria to collaborate with IA departments for them to function effectively and, in turn, to have better performance and financial prudence. The study pointed out the significant role of top management support in achieving IA effectiveness, therefore the top management of the Nigerian federal universities should ensure periodic review of IA reports and implementation of such review in order to keep up the trend of performance of their universities. This periodic review of IA performance will enable the universities to maximize output and ensure continuous compliance with appropriate audit standards and guidelines.

The regulatory agencies of Nigerian federal universities, such as National Universities Commission, Federal Ministry of Education, Office of the accountant general of the federation, Office of the Auditor General for the Federation and even the legislative arm of the government, should consider reviewing IA reporting line and other policy issues regarding IA independence. This will ensure efficiency and productivity in Nigerian federal universities. Professional groups, such as the Institute of Chartered Accountants of Nigeria and Association of National Accountants of Nigeria should collaborate with regulatory agencies and university management in ensuring competency and professionalism exist in IA departments of Nigerian federal universities. This can improve the performances of Nigerian federal universities.

5.7.2 Recommendation for Further Study

To mitigate those limitations, future researches should be extended to state-owned universities and privately-owned universities in the country. This can assist in ascertaining whether the result of the findings of the study can be applicable irrespective of their status, structure, and funding. More importantly, future studies should compare state-owned universities and federal universities performances by empirically testing those internal IAQ dimensions. It is also recommended that subsequent research should take into consideration other control variables such as communication, IA objectivity, motivation and quality of work perform by internal auditors as important variables that correlate with organizational performance. This study provides empirical evidence on the relationship of IAQ dimensions and organization performance, thereby adding more literature on the existing one.

Similar researches can add value to the existing research because studies of this kind in developing countries and in public sectors appear to be very scant.

In this study, quantitative research design was employed. Future research can employ a qualitative or mixed design. For instance, a qualitative interview should be carried out, where the respondents may provide a better understanding or response on the relationship between the constructs of the study. In this study, Statistical Package For Social Science (SPSS) *version 20* was employed in the data analysis, future research can use other models such as partial least square (PLS).

5.8 Conclusion

The study provides examination of the relationship between IA competence, IA size, IA independence, IA reporting line, and timeliness of IA report with organizational performance in the Nigerian federal universities.

The IA department is a vital organ to the administration of a university and it is considered a key element in the application of accounting systems which, in turn, helps in evaluating the work of other departments as well as the university as a whole. IA remains fundamental in organizational management and financial accounting systems as it ensures financial regularity and other internal control mechanisms in the university structure. The efficiency and effectiveness of IAQ dimensions help to develop and improve on the performance of an organization because the quality of financial transactions reflects quality of the IA department, thereby indicating effective performance of the Nigerian federal universities. IA department is an important part of the structure in the university as it covers the

activities of monitoring and oversight to the managements and audit committees to ensure credible financial reporting process (Public Oversight Board, 1994).

The IA being a section that ensures transparent and prudent financial dealings in an organization, its effectiveness helps in developing efficient organizational performance. This study extracts the relevance of human capital-based audit quality in the form of IA size and IA competency which enables audit staff to perform the quantum tasks within the university with expertise and professionalism. The audit size is important in achieving organizational performance especially when other factors such as culture within an audit department, audit methodology, and professional ethical standards that affect auditor quality are equally given attention. The positive and significant relationship identified in audit size and IA independence with organizational performance suggest that Nigerian federal universities are capable of achieving a high level of performance with support from top management. The size of IA in universities demonstrates a strong base for the department to play a major role in monitoring financial compliance in a constructive manner.

The positive and significant relationship identified in the study between IA competence, IA independence, and IA size with organizational performance illustrates that a unit increase in IA competence would improve the university's financial performance. Similarly, an increase in independence of IA and IA size would also lead to an increase in financial performance of the universities.

It can, therefore, be concluded that the present study provides some evidences on the performance consequences of IA practices in Nigerian federal universities. Specifically, the IAQ determinant, where they exist, significantly influences efficient financial and non-financial performance of any formal organization. Results of the study also highlight the role of top management support as the moderating variable of the study and its contribution for the IAQ as a key driver to organizational performance. Thus, this study adds to existing literature on IA in Nigeria and, given the importance attached to internal auditing in the public sector, this study enhances the understanding of the relationship between IAQ and organizational performance with a moderating variable of top management support in Nigeria within the context of Nigerian federal universities.

The outcome of the relationships of IA competence, IA independence and IA size with moderating effects of top management support, it is concluded that the Nigerian federal universities can have effective and reliable IA department capable of helping the universities to achieve high level of performance if given the necessary support that they require.

Finally, from the research findings, it can be concluded that all the research objectives stated for examining the relationship between IA competency, IA independence, and IA size, IA reporting line, and timeliness of IA report with organizational performance were achieved. Similarly, the theoretical framework of this study was designed based on the literature reviewed. Based on the findings of this study, a conclusion can be made that all the research questions and research objectives were answered, and the theoretical framework is also in line with the

underpinning theories of stewardship and resource dependency used in explaining the framework of the study.



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Appendix A

APPROVED FEDERAL UNIVERSITIES IN NIGERIA AS AT 2014

S/N	INSTITUTIONS	YEAR ESTABLISHED
1	University of Ibadan, Ibadan	1948
2	University of Nigeria, Nsukka	1960
3	Obafemi Awolowo University, Ile-Ife	1962
4	Ahmadu Bello University, Zaria	1962
5	University of Lagos, Lagos	1962
6	University of Benin, Benin City	1970
7	Bayero University, Kano	1975
8	University of Calabar, Calabar	1975
9	University of Ilorin, Ilorin	1975
10	University of jos, Jos	1975
11	University of Maiduguri, Maiduguri	1975
12	Usman Danfodiyo University, Sokoto	1975
13	University of Port-Harcourt, Port-Harcourt	1975
14	Federal University of technology, Owerri	1980
15	Federal University of technology, Akure	1981
16	Modibbo Adama University of Technology, Yola	1981
17	Federal University of technology, Minna	1982
18	Nigerian Defence Academy, Kaduna	1985
19	University of Abuja,	1988
20	Abubakar Tafawa Balewa University, Bauchi	1988
21	University of Agriculture, Makurdi	1988

22	Federal University of Agriculture, Abeokuta	1988
23	Nnamdi azikwe University, Awka	1992
24	University of Uyo, Uyo	1991
25	Micheal Okpara University of Agriculture, Umudike	1992
26	National Open University of Nigeria, Lagos	2002
27	Federal University of Petroleum Resources, Effurun	2007
28	Federal University, Lokoja, Kogi State	2011
29	Federal University, Lafia, Nasarawa State	2011
30	Federal University, Kashere, Gombe State	2011
31	Federal University, Wukari, Taraba State	2011
32	Federal University, Dutsin-Ma, Katsina State	2011
33	Federal University, Dutse, Jigawa Stae	2011
34	Federal University, Ndufu-Alike, Ebonyi State	2011
35	Federal University, Oye-Ekiti, Ekiti Sate	2011
36	Federal University, Otuoke, Bayelsa State	2011
37	The Nigeria Police Academy, Wudil, Kano state	2012
38	Federal University, Birnin-Kebbi, Kebbi State	2013
39	Federal University, Gusau, Zamfara State	2013
40	Federal University, Gashua, Yobe State	2013

Source: *National Universities Commission (NUC), official bulletin, Jan, 2014*

Appendix B
FEDERAL UNIVERSITIES IN NIGERIA: A STATISTICAL
ANALYSIS BY GENERATION AS AT 2014

1st Generation universities

S/N	UNIVERSITY	YEAR OF ESTABLIS HMENT	LOCATION
1	University of Nigeria, Nsukka	1960	Nsukka
2	University of Ife (Owolowo University)	1962	Ife
3	Ahmadu Bello University, Zaria	1962	Kaduna
4	University of Lagos	1962	Lagos
5	University of Ibadan	1948	Ibadan
2nd Generation University			
1	University of Calabar	1975	Calabar
2	University of Jos	1975	Platua, State
3	University of Maiduguri	1975	Borno State
4	University of Sokoto	1975	Sokoto
5	University of Ilorin	1975	Kwara state
6	University of Port-Harcourt	1975	River State
7	Bayero University, Kano	1975	Kano
8	University of Bennin	1970	Bennin
3rd Generation (Specialized Universities)			
1	Abubakar Tafawa Balewa University	1988	Bauchi
2	Federal University of Technology, Akure	1981	Akure, Ondo
3	Federal University of Technology, Minna	1982	Minna

4	Federal University of Technology, Owerri	1980	Owerri
5	Federal University of Technology, Yola	1981	Yola
6	Federal University of Agriculture, Markodi	1988	Markodi
7	Federal university of Agriculture, Abeokuta	1988	Abeokuta
8	University of Abuja	1988	Abuja
9	Nigerian Defence Academic	1985	Kaduna.
4th Generation			
1	Nnamdi Azikwe University,	1992	Awka
2	University of Uyo	1991	Uyo
3	Micheal Okpara University of Agriculture	1992	Umudike
4	National Open university of Nigeria	2002	Lagos
5	Federal University of Petroleum Resources	2007	Effurun
6	Federal University , Lokoja	2011	Kogi State
7	Federal University, Lafia	2011	Nassarawa State
8	Federal University, Kashere	2011	Gombe State
9	Federal University, Wukari	2011	Taraba State
10	Federal University, Dutsin-Ma	2011	Katsina State
11	Federal University, Dutse	2011	Jigawa State
12	Federal University, Ndufe-Alike	2011	Ebonyi State
13	Federal University, Oye-Ekiti	2011	Ekiti State
14	Federal University, Otuoke	2011	Bayelsa State
15	The Nigerian police Academy, Wudil	2012	Kano State
16	Federal University, Birnin-Kebbi	2013	Kebbi State
17	Federal University, Gusau	2013	Zamfara State
18	Federal University, Gashua	2013	Yobe State

Source: *National University Commission (NUC), official Bulletin, Jan, 2014*

Appendix C
SURVEY QUESTIONNAIRE

Tunku Putari Intan Safinaz, School of Accountancy

Universiti Utara Malaysia, UUM SOA, COB

Address:

06010 UUM SINTOK,

Kedah Darul Aman,

Malaysia.

Tel: (604) 9284260



Dear Sir/Madam,

**SURVEY QUESTIONNAIRE ON INTERNAL AUDIT QUALITY AND
ORGANIZATIONAL PERFORMANCE IN NIGERIAN FEDERAL
UNIVERSITIES.**

I am Suleiman Mohammed Bello, a PhD student of Universiti Utara, Malaysia (UUM). I am conducting a research on Internal Audit Quality and Organizational Performance for Nigerian Federal Universities.

Attached is a set of questions related to my study. You have been selected to participate in this survey. Kindly, complete the questionnaire as accurate as possible, please.

Be assured that all of your responses will be strictly kept confidential and will be used for the purpose of this study only. Your cooperation and attention on this matter is highly appreciated.

Thank you very much.

Yours sincerely,

Supervisors:

Suleiman Mohammed Bello (900011)

GSM: +2348036165749

E-mail: sbellorano@gmail.com

1. Professor, Dr. Ayoib Che Ahmad

2. Dr. Nor Zalina Mohamad Yusof

SECTION I – Demographic Information

Please indicate your choice by ticking (√) in the appropriate space provided in the response options:-

1.

Age of respondent	20 – 29	30 – 39	40 – 49	50 – 59	60 and above

2.

Gender	Male	female

3.

Number of years in service	1 – 9	10 – 19	20 – 29	30 and above

4. Rank – Director, internal audit; D/Director, IA; CIA; ASST, CIA; Prin. IA; SNR, IA; IA; HEO (AUDIT); ASST. HEO (AUDIT)

Please Specify:

5.

Highest Qualification	NCE/Diploma	BA/BSc/HND	Masters	PhD.

6.

Membership of professional body	ICAN	CMA	ANAN	CPA	ACCA	CIA	OTHERS

Key:-

- ICAN – Institute of Chartered Accountants of Nigeria
- ANAN – Association of National Accountants of Nigeria
- CIA – Certified Internal Auditor
- CMA – Certified management Accountant
- CPA – Certified Public Accountant
- ACCA – Association of Certified Chartered Accountants (England)

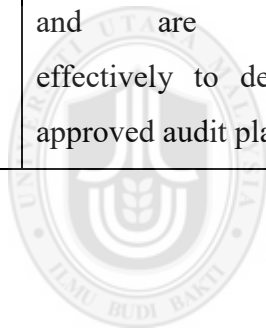
SECTION II: Below are statements pertaining internal audit functions in your University. The questionnaire adopts five points Likert - Scale. It is structured in statement form, to allow for more choice to the respondents. Please, use the key below to select your choice for each statement and tick (√) as appropriate in the answer option 1 to 5. The appropriate one you choose from the options ranges from “Strongly Disagree”, “Disagree”, “Neutral”, “Agree” and “Strongly Agree”.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
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SECTION II A: Internal Audit Competency

S/N	Question /Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Internal audit staff of my University possess appropriate knowledge, skills and professionalism in auditing profession to execute the task given to them.					
2.	Recruitment process into internal audit department allow for recruitment standard that set out intellectual qualities and personal attributes in my university.					
3.	My University has standing policies for training and career development plan for internal audit staff.					
4	Internal auditors in my university are allowed to participate in the annual continuous professional development programme organized by relevant professional groups.					

S/N	Question /Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
5.	Internal audit manual is readily available in my University to guide audit staff in executing their responsibilities.					
6.	All new internal audit staff in my university receives induction training.					
7.	Internal audit department in my university is sufficiently resourced in terms of staff and budget and are deployed effectively to deliver the approved audit plan.					



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SECTION II B: Internal Audit Independence

S/N	Question /Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	The Vice-Chancellor of my university willingly responds to audit findings and recommendations.					
2.	Internal audit has direct access to necessary information and records to execute its responsibilities.					

S/N	Question /Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3	Internal audit provides reports only to the Vice-Chancellor in my univ.					
4.	Internal audit reports both to the audit committee of my university and the Vice-Chancellor.					
5	Audit reports are not being implemented as when due.					
6.	Internal auditors conduct audit function according to the assigned responsibilities.					
7.	Internal audit has clear and defined functions in my university.					
8.	Internal audit staff of my university face intimidation and harassment due to unfavorable audit report findings and recommendations.					
9.	The University council of my university oversees employment or dismissal of Head of internal audit unit.					
10.	Internal audit of my univ. performs its duties with greater degree of					

autonomy and independence from the management.					
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SECTION II C: Internal Audit Size

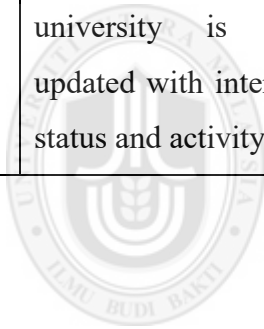
S/N	Question /Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	The staff in the internal audit department of my university are adequate to carry out the routine and strategic audit functions.					
2.	All auditing functions that were approved in the audit plan are performed completely in my univ.					
3.	There are indications of outsourcing the function of internal audit staff in my University.					
4.	The number of employees in internal audit is limited given the amount of auditing work planned by my university.					
5.	The internal audit department services and functions covers what is expected of it in my university.					
6.	Internal audit services in my university effectively coordinates and promotes cooperation with external auditors to accomplish task.					

7.	Internal audit personnel are routinely rotated on assignments in my university.					
8.	Internal audit personnel in my university do not have any conflicting operating responsibilities.					
9.	Budgetary provision to internal audit department is adequate regardless of its size in my university.					
10.	Budgetary provision to internal audit department of my university is based only on the number of audit staff.					
11.	Management is not aware of the need of internal audit budget as demonstrated by the small budget assigned to it in my university.					
12.	Internal audit department is large enough to successfully carry out financial and non-financial activities of my university.					

SECTION II D: Internal Audit Reporting Line

S/N	Question /Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	In my university, reporting line of internal audit supports internal audit independence with functional reporting to the audit committee of the university council and administratively to the Vice-Chancellor.					
2.	In my university, the reporting level varies with the importance of internal audit findings					
3.	Internal audit reports and findings are adequately documented and are being considered for implementation in my university.					
4.	In my university, corrective action plans and discussions with auditees are agreed to before the report is used.					
5.	Internal audit of my university follow up implementation of corrective measures relating to audit findings.					

6.	The report and findings of internal audit in my university influence management decision processes.				
7.	The internal audit department/unit in my university is properly structured and functionally positioned to allow effective auditing operations and reporting relationship.				
8.	The council of my university is routinely updated with internal audit status and activity reports.				



SECTION II E: Timeliness of Internal Audit Report

S/N	Question /Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Internal audit reports in my university are generally objective, clear, and timely to allow effective decision making.					
2.	Audit findings and recommendations are appropriately classified to addresses major risk elements in my University and are issued promptly.					
3	Draft internal audit reports are issued for consideration by the auditee within reasonable time scale before release to management of my university.					
4.	Internal audit work is documented and maintained in a file of audit working papers to ease work process					
5.	Internal and external interference from political and social issues affects the issuance of internal audit reports in time.					
6.	The magnitude of audit findings affects the timeliness of internal audit					

	report in my university.					
7.	Delay in issuing internal audit reports rendered such reports to lose their credibility.					
8.	In my university, there is a procedure for follow up that ensure agreed recommendation and implementation within pre-agreed timescales.					
9.	Management attitude of my university to internal audit reports and their sense of accountability determine the ability of internal audit to issue its reports within a reasonable timeframe,					
10.	In my university, there is no specific timeframe and period to internal audit reports to be issue and follow-up on resolved or outstanding issues with management.					
11.	Report contents, either quality or adverse report largely determine the timeliness of internal audit report.					

SECTION II F: Top Management Support

S/N	Question /Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Internal audit department in my university is adequately resourced in terms of staff and working materials to enable it perform effectively.					
2.	In my university, internal audit services have the necessary access to information to enable it achieve its objectives.					
3.	Management and audit committee of my university respond to audit findings and recommendations promptly.					
4.	Internal audit staff in my university are allowed to participate in an annual mandatory professional training programme organized by professional bodies.					
5.	In my university, internal audit unit is involved in University management committee meetings and other strategic committee to remain update about the university's operations.					

6.	Top management of my university allow internal audit services with appropriate autonomy and defined responsibilities to discharge its functions effectively.					
7.	Top level management of my university trust and values the internal audit services.					
8.	Internal audit services are seen as a key strategic partner for achieving the objectives of my university					
9.	My university allowed internal audit staff to participate in regular training to update their skills and knowledge.					

SECTION II G: Organizational Performance.

S/N	Question /Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	My University experience significant improvement in financial efficiency as a result of structure that allow for quality internal audit.					
2.	My University experience significant return on asset as a result of existence of internal audit which promotes efficient utilization of its scarce resources.					
3.	My University experience significant reduction in service costs as a result of its compliance with appropriate internal audit laws, regulations and policies.					
4.	My University succeeds in improving the confidence of stakeholders as a result of Internal audit that contributing to academic excellence through its objective assessment in performance audit.					
5.	My University succeeds in contributing the performance of the institution because it has an established policy and procedure inform of manual that guide internal audit in the discharge if its responsibilities.					

6.	My University available services are supportive for its stakeholders as a result of Internal audit findings and recommendations that provide practical and cost-effective corrective measures for effective performance.					
7.	My University have reduced amount of complaints from stakeholders as a result of quality internal audits that ensure operating procedures are consistent with learning and growth objectives of the institution.					
8.	My University significantly reduces the amount of average mistakes in its procedures because of its regards for internal audit as value adding activity in the institution.					
9.	My University experiences significant increase in facilities' improvement because it regards internal audit as agent that influences positive change and continues improvement to the university's processes and accountability.					
10.	My University significantly Involve in supporting new services because it accepts and					

	utilizes the competence of internal audit to improve the organizational processes and strategic objectives.					
11.	My University significantly improvement in prompt response to stakeholders because it accepts and utilizes the knowledge of internal audit to improve the organizational processes and strategic objectives..					



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Kedah Darul Aman,

Malaysia.

Tel: (604) 9284260



11TH March 2015

The Executive Secretary,
National Universities Commission,
Aja Nwachuku House,
No. 26, Agunyi Ironsi Street,
P.M.B. 237, Garki Abuja, Nigeria.

Dear Sir,

**REQUEST FOR DATA TO CONDUCT RESEARCH ON NIGERIAN
FEDERAL UNIVERSITIES.**

I am Suleiman Mohammed Bello, a PhD student at Universiti Utara, Malaysia (UUM). I am conducting a research on Internal Audit Quality and Organizational Performance for Nigerian Federal Universities.

Kindly, provide me with a list of internal auditors at senior level from Nigerian Federal Universities to enable me prepare for the conduct of the research.

Be assured that the information provided will be strictly kept confidential and will be used for the purpose of this research only. Your cooperation and attention on this matter is highly appreciated.

Thank you.

Yours sincerely,

Suleiman Mohammed Bello,(900011)

GSM: +2348036165749

E-mail: sbellorano@gmail.com

Appendix D

DATA ANALYSES OUTCOME

Regression

Descriptive Statistics

	Mean	Std. Deviation	N
Org_performance	7.6068	1.08749	313
Competence	3.6294	.77374	313
Independence	3.6460	.66462	313
Size	2.8686	.57244	313
Reporting	3.1613	.70203	313
Timeliness	3.5250	.71162	313



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Correlations

		Org_performance	Competence	Independence	Size	Reporting	Timeliness
Pearson Correlation	Org_performance	1.000	.324	.545	.451	.459	.208
	Competence	.324	1.000	.347	.300	.313	.101
	Independence	.545	.347	1.000	.541	.499	.179
	Size	.451	.300	.541	1.000	.377	.028
	Reporting	.459	.313	.499	.377	1.000	.520
	Timeliness	.208	.101	.179	.028	.520	1.000
Sig. (1-tailed)	Org_performance	.	.000	.000	.000	.000	.000
	Competence	.000	.	.000	.000	.000	.038
	Independence	.000	.000	.	.000	.000	.001
	Size	.000	.000	.000	.	.000	.309
	Reporting	.000	.000	.000	.000	.	.000
	Timeliness	.000	.038	.001	.309	.000	.
N	Org_performance	313	313	313	313	313	313
	Competence	313	313	313	313	313	313
	Independence	313	313	313	313	313	313
	Size	313	313	313	313	313	313
	Reporting	313	313	313	313	313	313
	Timeliness	313	313	313	313	313	313

Variables Entered/Removed^a

Residuals Statistics^a

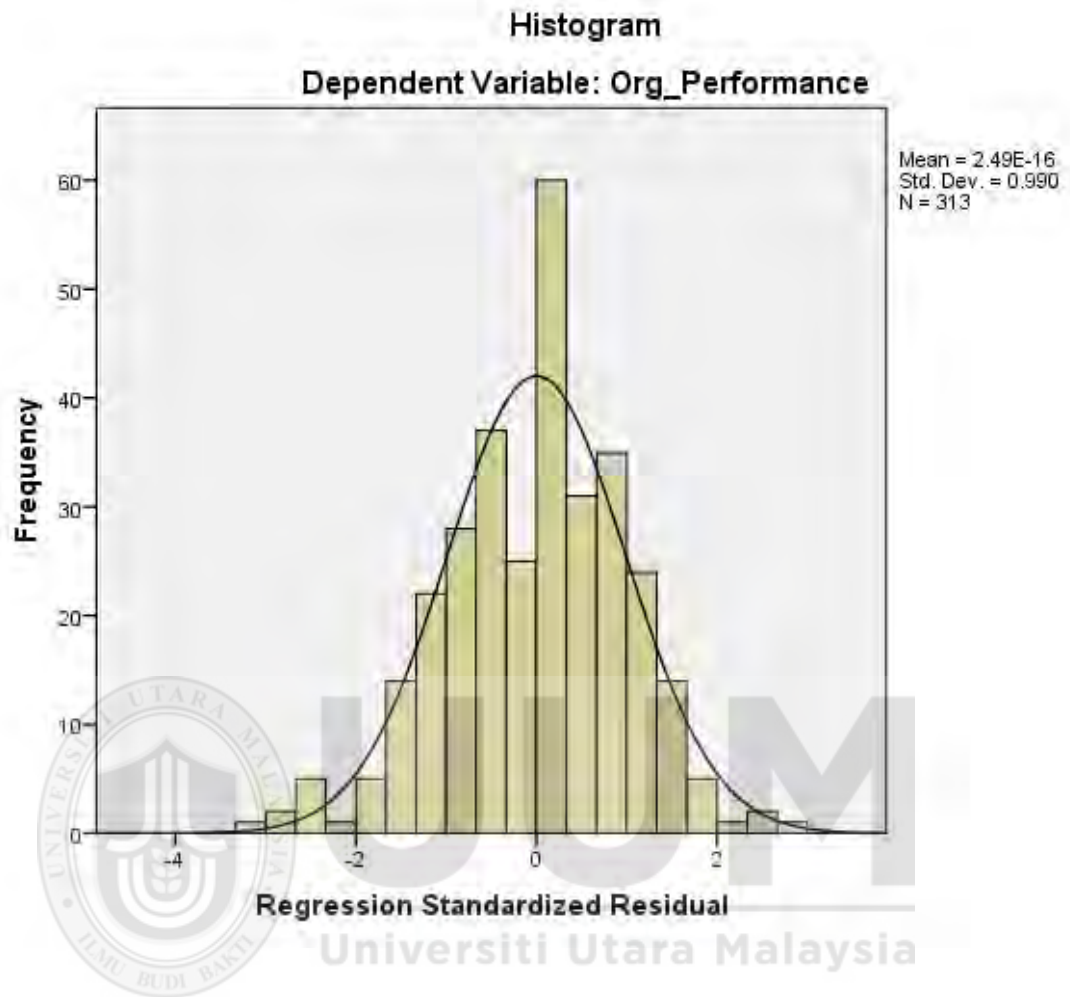
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	5.6388	8.9619	7.6068	.66744	313
Std. Predicted Value	-2.949	2.030	.000	1.000	313
Standard Error of Predicted Value	.063	.244	.115	.035	313
Adjusted Predicted Value	5.6351	8.9721	7.6037	.66839	313
Residual	-3.63558	2.12254	.00000	.85858	313
Std. Residual	-4.200	2.452	.000	.992	313
Stud. Residual	-4.301	2.484	.002	1.004	313
Deleted Residual	-3.81203	2.17701	.00307	.87936	313
Stud. Deleted Residual	-4.430	2.505	.001	1.010	313
Mahal. Distance	.641	23.877	4.984	3.866	313
Cook's Distance	.000	.150	.004	.011	313
Centered Leverage Value	.002	.077	.016	.012	313

a. Dependent Variable: Org_performance



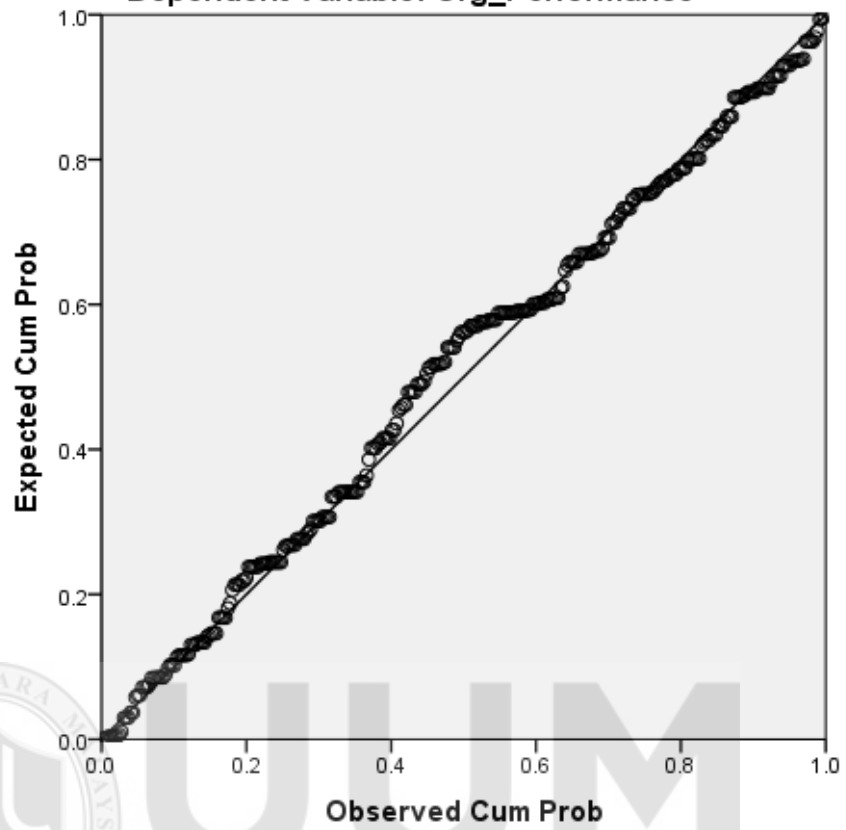
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Charts



Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Org_Performance



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Coefficients^a

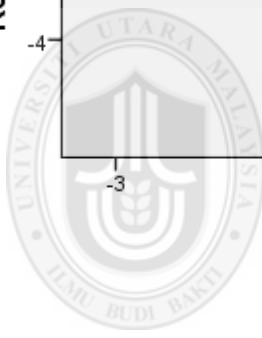
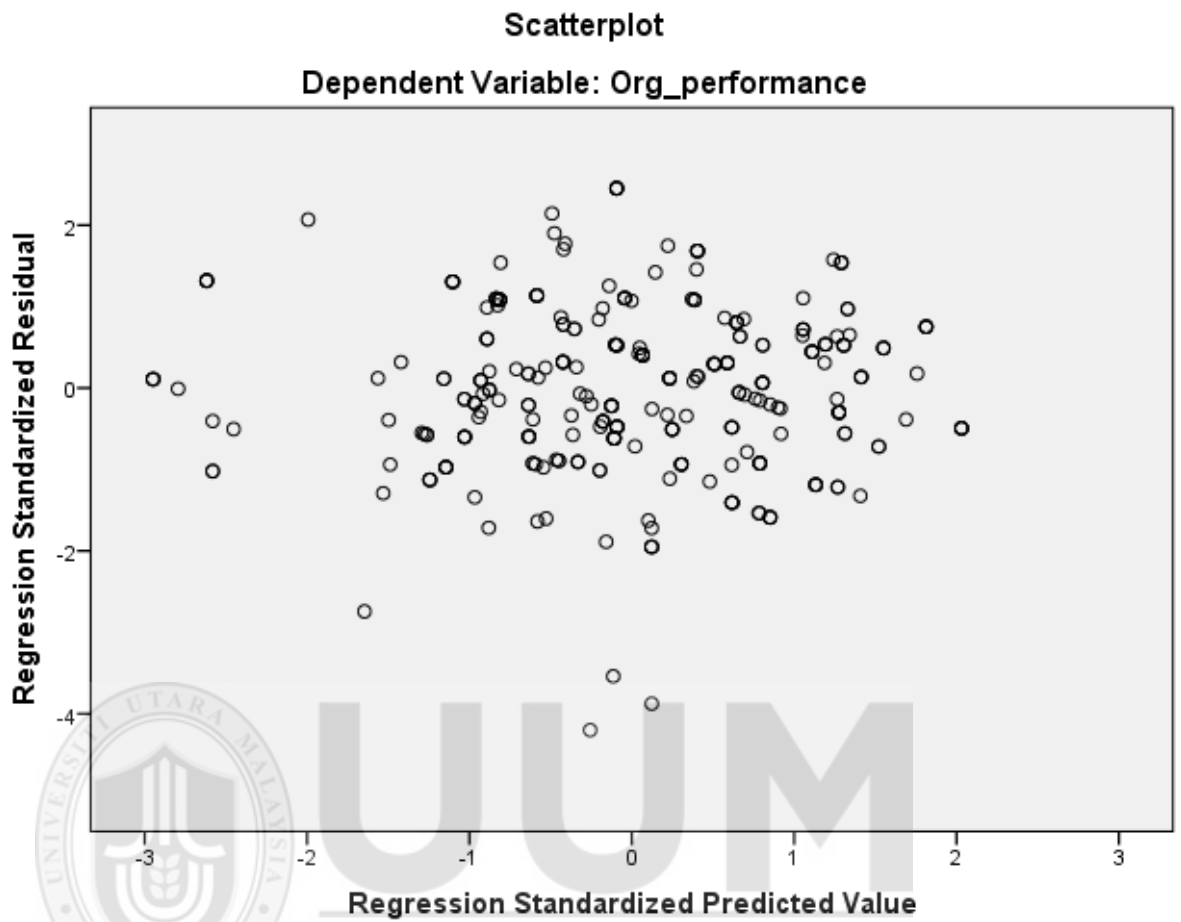
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Partial	Tolerance	VIF
(Constant)	1.729	.150		11.549	.000					
Competence	.065	.030	.096	2.159	.032	.362	.122	.088	.831	1.204
Independence	.055	.046	.070	1.203	.230	.533	.069	.049	.489	2.045
1 Size	.095	.028	.169	3.447	.001	.477	.193	.140	.688	1.453
Reporting	.007	.036	.011	.187	.852	.462	.011	.008	.514	1.946
Timeliness	.081	.029	.131	2.792	.006	.262	.158	.113	.752	1.329
Support	.319	.043	.461	7.388	.000	.662	.389	.300	.423	2.365

a. Dependent Variable: Org_Performance

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	Competence	Independence	Size	Reporting	Timeliness	Support
1	1	6.797	1.000	.00	.00	.00	.00	.00	.00	.00
2	2	.074	9.554	.01	.00	.00	.55	.01	.16	.00
3	3	.045	12.319	.04	.34	.01	.07	.20	.13	.00
4	4	.033	14.384	.03	.01	.03	.36	.20	.29	.15
5	5	.025	16.430	.09	.55	.11	.01	.28	.01	.07
6	6	.015	21.175	.58	.08	.00	.00	.31	.41	.30
7	7	.011	24.893	.25	.02	.85	.00	.00	.00	.47

a. Dependent Variable: Org_Performance



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Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.705 ^a	.496	.487	.37659

a. Predictors: (Constant), Support, Timeliness, Competence, Size, Reporting, Independence

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.791	6	7.132	50.290	.000 ^b
	Residual	43.396	306	.142		
	Total	86.187	312			

a. Dependent Variable: Org_Performance

b. Predictors: (Constant), Support, Timeliness, Competence, Size, Reporting, Independence

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.729	.150		11.549	.000
	Competence	.065	.030	.096	2.159	.032
	Independence	.055	.046	.070	1.203	.230
	Size	.075	.052	.089	1.047	.191
	Reporting	.007	.036	.011	.187	.852
	Timeliness	.081	.029	.131	2.792	.006
	Mgt. Support	.319	.043	.461	7.388	.000

a. Dependent Variable: Org_Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.743 ^a	.552	.536	.35812

a. Predictors: (Constant), TIAR*TMS, Competence, Size, Independence, Reporting, Timeliness, Mgt. Support, IAS*TMS, IAI*TMS, IAC*TMS, RLIA*TMS

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.584	11	4.326	33.730	.000 ^b
	Residual	38.603	301	.128		
	Total	86.187	312			

a. Dependent Variable: Org_Performance

b. Predictors: (Constant), TIAR*TMS, Competence, Size, Independence, Reporting, Timeliness, Mgt. Support, IAS*TMS, IAI*TMS, IAC*TMS, RLIA*TMS



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Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	1.077	.524		2.056	.041
	Competence	.538	.158	.792	3.397	.001
	Independence	.420	.141	.531	2.972	.003
	Size	-.091	.149	-.161	-.609	.543
	Reporting	.096	.162	.149	.590	.555
	Timeliness	.319	.138	.515	2.319	.021
	Mgt. Support	.512	.172	.739	2.971	.003
	IAC*TMS	.152	.047	1.246	3.231	.001
	IAI*TMS	.156	.042	1.310	3.670	.000
	IAS*TMS	.552	.140	.554	2.296	.023
	RLIA*TMS	-.018	.048	-.154	-.381	.704
	TIAR*TMS	-.080	.042	-.675	-1.915	.056

a. Dependent Variable: Org_Performance

Descriptives

[DataSet0] C:\Users\Isa\Desktop\Recent Jobs\CIA\CHP 4\CFA Working File_1.sav

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IAC1	313	1.00	5.00	4.1022	.84870
IAC2	313	1.00	5.00	3.5240	1.03166
IAC3	313	1.00	5.00	3.2620	1.03236
Valid N (listwise)	313				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IAI1	313	1.00	5.00	3.3706	1.06970
IAI2	313	1.00	5.00	3.6550	1.07228
IAI6	313	1.00	5.00	3.9297	.81346
IAI7	313	1.00	5.00	4.0735	.86103
IAI10	313	1.00	5.00	3.2013	1.10407
Valid N (listwise)	313				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IAS1	313	1.00	5.00	2.7157	1.23217
IAS2	313	1.00	5.00	2.8946	1.01514
IAS5	313	1.00	5.00	3.1182	1.15001
IAS12	313	1.00	5.00	2.7252	1.24341
Valid N (listwise)	313				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
RLIA1	313	1.00	5.00	2.8371	1.18307
RLIA2	313	1.00	5.00	3.1789	1.02216
RLIA3	313	1.00	5.00	3.1597	1.03157
RLIA7	313	1.00	5.00	3.3770	1.11447
Valid N (listwise)	313				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
TIAR1	313	1.00	5.00	3.4952	.97770
TIAR2	313	1.00	5.00	3.5399	.87294
TIAR4	313	1.00	5.00	3.8243	.97949
Valid N (listwise)	313				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
TMS6	313	1.00	5.00	3.2524	1.03320
TMS7	313	1.00	5.00	3.5463	.97003
TMS8	313	2.00	5.00	3.5463	.95000
TMS9	313	1.00	5.00	3.3419	1.01341
Valid N (listwise)	313				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
OP2	313	1.00	5.00	3.5335	.88052
OP3	313	1.00	5.00	4.0447	.66836
OP5	313	2.00	5.00	4.2077	.63423
OP6	313	1.00	5.00	3.6645	.84310
OP7	313	2.00	5.00	4.1054	.62409
OP8	313	2.00	5.00	3.9872	.57163
OP10	313	1.00	5.00	3.5974	.86097
OP11	313	1.00	5.00	3.6262	.93244
Valid N (listwise)	313				

Correlations

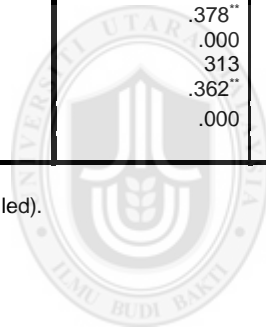
		Competence	Independence	Size	Reporting	Timeliness	Support	Org_Performance
Competence	Pearson Correlation	1	.347**	.286**	.290**	.127*	.378**	.362**
	Sig. (2-tailed)		.000	.000	.000	.024	.000	.000
	N	313	313	313	313	313	313	313
Independence	Pearson Correlation	.347**	1	.468**	.497**	.217**	.688**	.533**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	313	313	313	313	313	313	313
Size	Pearson Correlation	.286**	.468**	1	.396**	.074	.510**	.477**
	Sig. (2-tailed)	.000	.000		.000	.191	.000	.000
	N	313	313	313	313	313	313	313
Reporting	Pearson Correlation	.290**	.497**	.396**	1	.475**	.565**	.462**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	313	313	313	313	313	313	313
Timeliness	Pearson Correlation	.127*	.217**	.074	.475**	1	.188**	.262**
	Sig. (2-tailed)	.024	.000	.191	.000		.001	.000
	N	313	313	313	313	313	313	313
Mgt. Support	Pearson Correlation	.378**	.688**	.510**	.565**	.188**	1	.662**
	Sig. (2-tailed)	.000	.000	.000	.000	.001		.000
	N	313	313	313	313	313	313	313
Org_Performance	Pearson Correlation	.362**	.533**	.477**	.462**	.262**	.662**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	313	313	313	313	313	313	313

N

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

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