Internal Audit Functions And Accountability Of Tertiary Institutions In Kano State – Nigeria

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Abstract: Internal audit remains the utmost mechanism for the quality performance of any institution; however, to make certain an effective internal control system in the organization, there has to be accountability in their internal audit functions, some of which are; cash flow, asset and liability verification and validation. Thus, the study examined the impact of internal audit functions on the accountability of tertiary institutions in Kano State, Nigeria. Data were collected from respondents drawn across the tertiary institutions in the state. Ordered logistic regression was the preferred method of analysis for the study. The results indicate a positive and significant impact of internal audit functions as measured using internal control system review; compliance with established policy, plans and procedures; assets and liability verification, on financial accountability (transparency, responsibility and answerability) hitherto, for a 1% increase in internal audit functions in the tertiary institution in Kano state, there is an approximate increase of 87% in their level of accountability while all other factors held constant. Therefore, it was concluded that internal audit functions highly and significantly impact on the accountability of tertiary institutions and is directly proportional. This implies, the more tertiary institutions strengthen their internal audit functions, the more accountable and productive they are. One major recommendation is that, to enhance a greater sustainable impact of internal audit function on accountability in the tertiary institutions, audit independence should be more strengthened through adequate staff career and professional development activity, more management support and adequately staffing of the audit unit.

I. INTRODUCTION

Internal Auditing is designed to enhance the quality and reliability of financial statements through the prevention of the manipulation or misrepresentation of accounting information in order to promote public confidence in the affairs of an organisation. Ultimately, this will improve the overall performance of the reporting entity. It is a process that involves an independent appraisal or review carried out within an organization on the accounting, financial or any other related operations with a view to providing protective and constructive services to the management (Suleiman, 2015). Ejoh and Ejom (2014) viewed it as a first line of action for the effective management and accountability of tertiary institutions having an appropriate Internal Audit unit well-structured in an organization, support from the board of directors or the chief executive officer. The audit committee

and co-operation from the Audit staff that are in the best position to note detect and report any inappropriate accounting practice will enhance internal audit functions. The functions of Internal Audit towards institutional Accountability are very vital. Accountability involves revealing, explaining and justifying what one does or how one discharges his responsibility effectively (Gehya, 2014). The internal auditor who is the head of the internal audit unit is expected to possess the qualities of financial and administrative accountability in discharging his responsibilities (Johnson, 2004). The focus of this research work is centered on the financial accountability of tertiary institutions.

Tertiary education is the Post-Secondary Section of the National Education system, which comprises Universities, Polytechnics and Colleges of Education. They are institutions of higher learning where knowledge is imparted to its seekers and researches are undertaken in various fields of human

endeavour. The main objective of either public or private tertiary Institutions is to provide educational services and counseling to the general public at the right time (Gehya, 2014). Anyafo (2000) opined that the primary objective of tertiary institutions is to provide educational services to desirous members of the public. It is important to appreciate the fact that, for tertiary institutions (private or public) to achieve their desired objectives effectively, the management must establish an effective internal audit function, which would be able to furnish the management of the institutions with necessary analyses, appraisals and recommendations for onward decision and strategic policy making towards enhancing overall productivity and accountability. Due to the increasing demand for change, good governance, transparency and accountability in public sector, it is important to revise internal auditing practice to assess adequacy, reliability, efficiency and effectiveness of other controls which entails procedures, standard and budgeting system. Thus, the under-development of public tertiary institutions in Nigeria as compared to other tertiary institutions around the world and the frequent conflicts between the government and the managements of institutions could be due to inadequate accountability and budgeting system which could be as a result of poor internal control system and internal audit (Gehya, 2014).In public tertiary institutions today, there are lots of abandoned projects, poor facilities coupled with white elephant projects which are of no benefits and diversion of funds from one sub-head to another (Gehya, 2014). It is upon this ground that this study intends to show the importance of internal auditing in enhancing accountability. In the context of tertiary institutions in Kano state, a broad clue about the importance and contribution of internal audit functions on accountability is very vital even though internal auditors have many roles and contributions to the institution and the public interest at large. In addition, it faces many challenges from the institution; some of the challenges include lack of management support, inadequate internal audit independence and being ignored (conflict of interest) and lack of professional development, among others. The management of tertiary institutions in Kano state should be clearly responsible for defining the roles of internal audit unit and ensuring that it has an appropriate level of authority and independence, including the right to report to the highest authority. To enhance effective accountability in those tertiary institutions, there has to be effective internal control system review, asset and liability verification and validation. For the tertiary institutions to have successful accountability, a well-designed internal auditing system must be put in place to enhance transparency, fund utilization and answerability- a sound reporting system, of such institution. In view of this, this study aims to assess the impact of internal audit functions (Internal control system review, Internal audit investigation on compliance and Assets and liabilities verification) on the accountability of tertiary institutions in Kano state.

In order to achieve the objectives of the study, the following research hypotheses (HP) were developed:

HP 1: Internal control system review has significant impact on the Accountability of tertiary institutions in Kano state.

HP 2: Audit investigation on compliance has significant impact on the Accountability of tertiary institutions in Kano state.

HP 3: Assets and liabilities verification has significant impact on the Accountability of tertiary institutions in Kano state.

This paper is organized into five sections. Section one exemplifies the introductory part where a brief explanation of the topic, statement of the problem, objectives of the study, and hypotheses of the study were presented. Section two entails a review of literatures in which theories, empirical evidence and knowledge gap was identified. Section three embodies the research methodology. Section four presents the results of the analysis and the interpretation. Finally, section five brings to an end the research with conclusion and possible recommendations.

II. Literature Review

A. THE CONCEPT OF INTERNAL AUDITING

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

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

B. THE INTERNAL AUDIT FUNCTION

Internal Audit function is an independent, objective assurance and consulting activity designed to add value and improve the institution's operations. It helps it to accomplish its objectives by bringing a systematic, disciplined approach to

evaluate and improve the effectiveness of risk management, control and governance processes (Gbabarr, 1992).

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

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

The internal audit function can thus contribute both by evaluating the systems' functioning and reliability (assurance services) and supporting the design of these systems by providing specific recommendations (consulting services). The services actually provided by the internal audit function depend on their positioning in the organization as well as on its intended function (Johnson, 2004). The internal audit function can then assume an important role as an in-house advisory function that offers analyses and assurance to the board as to the functioning of the risk management and internal control systems (Joyce, 2011).

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

C. INTERNAL AUDIT FUNCTIONS AND FINANCIAL ACCOUNTABILITY IN TERTIARY INSTITUTIONS.

In order to analyze what the internal audit function can offer, it is important to understand the needs and expectations of the internal and external decision makers toward the internal audit function. Also, different departments of a tertiary institution require internal audit functions in different ways, for example, management, accountability internal controls, board of directors and other stake-holders. Management typically highlights and defines the objective of the internal audit to focus primary on assuring needs for assurance services and monitoring and supervisory role in order to prevent and safeguard the misappropriation of assets and organizational resources. This in-service can be achieved by audit, by ensuring that due process is followed and the

authorization and implementation of affairs are in accordance with the laid down rules and regulations , thus risk is highly managed. The existence of the internal audit function does not diminish the responsibilities of the institution's leadership and management team to implement and maintain effective systems of internal control.

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

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

With better integration among monitoring functions, methodologies and systems, tertiary institution's leaders receive more relevant reports, thereby enabling them to take corrective action promptly. Effective integration contributes to better-trained individuals and enhances reporting capabilities and operational efficiencies.

D. ACCOUNTABILITY

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

which measures compliance with preset standard and formally defined outcomes, and performance based accountability, which measures accountability against broad objectives. He also noted that there are three pillars of accountability, which the UNDP (United Nations Development Program) tagged ATI (Accountability, Transparency and Integrity). Accountability, which is segmented into: Financial accountability which is the obligation of anyone handling resources, public office or any other position of trust to report on the intended and actual use of the designated office. Administrative accountability which is a type of accountability that involves a sound system of internal control, which complements and ensures proper checks and balances supplied constitutional government and an engaged citizenry. These include ethical code, criminal penalties and administrative reviews. Political accountability which is a type of accountability that fundamentally begins with free, fair and transparent elections. Through periodic elections and control structure, elected and appointed officials are held accountable for their actions while holding public office. The internal auditor who is the head of internal audit unit is expected to possess the qualities of financial accountability and administrative accountability in discharging his responsibilities. The auditor ensures that work has been conducted in accordance with agreed rules and standards and reports back to management accurately on financial performance vis a- vis mandated roles and /or plans.

Francis (1986) accordingly said good governance requires regular financial and performance reporting that is validated for accuracy by an independent auditor. Accountability also implies imposing penalties or sanctions against those who have misapplied the resources for purposes other than intended (I IA, 2015).In order to bring about sustainable improvements in public service development and delivery, it is important that accountability in the public sector is improved upon. Accountability is also important to demonstrate democratically how government carries on the tasks of monitoring and control while preventing the concentration of power and enhancing the learning capacity and the effectiveness of public administration (Dechow, Sloan & Sweeney, 1996). Accountability shows relevance and plays a greater role in public administration (Cooper & Schindler 2001;Dechow et al 1996). Oseni (2004) suggested that every government is fundamentally trying to appear good and reliable to the public. Anti-corruption laws and ethical codes have been established and enforced to avoid unethical actions against regulation. The concept of accountability has been evolving and broadening to a concept of integrated financial management and stewardship over the effective and efficient use of financial and other resources in all government operation` areas (Cooper & Schindler, 2001; Dechow et al, 1996).

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

E. PRIOR EMPIRICAL STUDIES

The study of Ezeani and Oladele (2012) tried to find out what school audit is all about the role of audits and the difference it can make towards accountability, especially in school administration. They employed a descriptive design and found out that lack of technical competence independence and inadequate level of resources do directly affect the performance of the school audit. It therefore concluded that intensive and regular training programs should be ensured for school accountants and auditors and there should also be the proper delegation of duties. This assertion is in accordance with that of Ejoh & Ejom (2014) and related to Cohen and Sayag (2010) in the areas of inadequate professional proficiency of internal auditors, quality of audit work, organizational independence, career and advancement. While Ejoh and Ejom (2014) limited their work on colleges of education as tertiary institutions in Cross –River state, Tijjani (2003) also limited his study to universities as tertiary educational institutions. Their studies, however, can be described to be narrow in terms of scope of what a tertiary institution entails. This research encompassed universities, polytechnics and colleges of Education as tertiary institutions. Moddibo (2015) studied on internal audit unit on the effectiveness of the internal control system while this research focuses on internal audit function and financial accountability; Chi-square was used to analyze the data while a more advanced method was employed for this research work. The findings were that internal audit units are not effective because of lack of independence, short staffing and untimely audit report. Poor placement of the internal control system coincides with Ezeani & Oladele (2012), Onatuyeh & Aneiefor (2013) Akosile (2013) and Onoja et al (2013). Ownership factor (federal, state or private) can influence governance policy, recruitment and the enthronement pattern of key officers and staff of individual tertiary institutions will therefore be more appropriate to look beyond just considering one type of institution before arriving at a concrete position.

Other researches conducted on the impact of internal audit functions in the public sector included Akosile (2013), who examined a comparative assessment of internal auditing functions in public and private universities in Nigeria. The findings of the result confirmed that internal auditing functions can be over-ridden by management in both public and private universities. Examination of the effectiveness of the internal control system in the private university shows that internal auditing function is effective in reducing the cost of running the university and also strengthens the goal attainment of a university contrary to Ejoh and Ejom (2014), who opined that effective internal auditing does not hinder the financial performance of tertiary institutions` in Nigeria because once there is a reduced running cost and an enhanced goal attainment, financial performance is of course guaranteed.

Onatuyeh and Aniefor (2013) in their work on public sector management and accountability in Edo State examined the extent to which effective internal audit functions could be used as an instrument to improve public sector management and accountability in the state. They used Cross tabulations, descriptive statistics and the Spearman rank order correlation

coefficient. The findings of their study suggest that effective internal auditing ensures proper stewardship reporting and inadequate qualified manpower does hinder the proper auditing of government accounts. Based on these, it can be deduced that auditing of accounts is fundamental to the effective and efficient stewardship reporting by accounting officials.

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

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

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

F. THEORETICAL FRAMEWORK

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

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

With regards to this work, the Agency Theory places internal audit function as an agent meant to uncover and disclose the true and fair of a financial statement towards enhancing the accountability of an organization and this makes the theory suit this research work best because it covers both the dependant and independent variables.

The Stewardship Theory defines situations in which managers are not motivated by individual goals. They are rather stewards whose motives with the objectives of their principals are aligned. Stewardship theorists assume a strong relationship between the success of the organization and the principal's satisfaction (Davis et al.1997 as cited by Kaars2011).The steward, as opposed to the agent, places greater value on collective rather than individual goals; the steward understands the company's success as his own achievement.

With respect to this work, the stewardship theory implies that for audit to perform it functions effectively, it has to be a joint activity between internal audit and management, Audit requires management cooperation to be able to enhance Accountability as well as organizational goal attainment collectively. The information principle enables users to take economic decisions. Investors require valid audited financial information on behalf of their investment decision-making and the assessment of expected returns and risks. An audit is also valued as a means of improving the financial data used in internal decision-making (Davis et al. 1997 as cited by Kaars2011). Data that are more accurate will improve the internal decision-making and enhance Accountability. Information principle here implies that a valid and more accurate data are the key ingredients to the auditors aimed at ensuring accountability and better decision making by the management of an organization.

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

III. METHODOLOGY

This section discusses the research design and methodology of the study; it highlights a full description of the research design, the research variables and provides a broad view of the description and selection of the population. The research instruments, data collection techniques and data analysis procedure have also been pointed out.

For this work, the cross sectional survey research design was used. This is based on the nature of the research, rapid data collection and the ability to understand a population from a part. Others that adopted the same approach are: Gehya (2014); Ejoh and Ejom, (2014) and Shewamene (2014).Descriptive statistics were adopted; statistics in the form of Ordinal logistic regression and Pearson correlation matrix were also utilized. This paper covers 12 institutions grouped into three strata of universities, polytechnic and colleges of education. On estimate, there are 4 universities, 1 polytechnic and 7 colleges of education, they are depicted in table 3.1 of the appendix:

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

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

Also, the independent variable of this study is Internal Audit Functions (IAF) whose proxies for this research are: Internal control system review activities; Asset and Liability Verification; Compliance with plan and procedures. The variables were used by Al-Twaijry, A. M., Brierley, J. A & Gwilliam, D.R (2004), Zain, Subramaniam and Stewart(2006), Arena and Azzone (2009), Okereson (2013), Shewamene; Gehya; Ejoh and Ejom, 2014 and are adopted as the components for the independent variables in this study.

VARIABLE	INDICATOR	SYMBOL	MEASUREMENT (Proxies)	Prior Empirical Backings
Dependent Variable				
	Financial Accountability	ACCT	Answerability, Responsibility and Transparency	David et al (2013), Frederick et al (2015); Al-Noor (2010), Tracy (2016) and Angela (2012)
Independent Variables				
	Internal	ICS,	Internal control	Al-Twaijry, A.
	Audit functions	CMP, ALV	systems review, Compliance with established policies and plans, Assets and Liabilities verification.	M., Brierley, J. A &Gwilliam, D.R(2004), Zain, Subramaniam and Stewart (2006), Arena and Azzone (2009), Okereson (2013), Shewamene; Gehya; Ejoh and Ejom, 2014

Source: Research findings

Table 3.1: Variables and their measurements at a glance

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

Where,

ICS =Internal control systems review

CMP = Compliance with policy, plans and procedures

ALV = Asset and Liability verification

ACCT = Accountability

E= Error term peculiar to each outcome variable.

$i = 1, 2, \ldots, 213$

IV. RESULTS AND DISCUSSION

This section presents, discusses and interprets the results of the data obtained. It gives the descriptive statistics of the variables used. It also presents the result of the correlation and ordinal logistic regression analysis of the data obtained from the cross-sectional survey of tertiary institutions in Kano state.

A. DESCRIPTIVE STATISTICS

This section presents the results of the descriptive statistics of the data collected.

Variable	N	Mean	Std. deviation	Minimum	Maximum
ACCT	213	3.8967	0.6506	2	5
ICS	213	4.0329	0.5859	2	5
CMP	213	3.8122	0.6676	2	5
ALV	213	3.8920	0.7021	1	5

Source: Research findings

Table 4.1: Descriptive statistics of the data

Table 4.1 presents the descriptive statistics of the dependent variable (Accountability) of this study as well as the independent variable – Internal audit functions (Internal control system (ICS), Compliance with established policy, plans and procedures (CMP) and Asset and Liability Verification (ALV). It displays the minimum, maximum, mean and standard deviation for both the dependent and independent variables of this study. The nature of the data shows that they are ordinal data, which are in categories and the size of the data is 213. The data are transformed by taking the average of the responses and rounded off to the nearest whole number.

The relatively small figures in standard deviation displayed were necessitated by the nature and size of imputed data.

B. REGRESSION RESULTS

This section presents the correlation results of the data collected.

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

Source: Extracted from Regression output

Table 4.2: Pearson Correlation Matrix of the variables

Table 4.2 shows the relationship between Accountability and the subset variables of Internal audit functions: ICS, CMP and ALV. It can be observed from the first matrix that all the subset variables of internal audit functions, ranging from Internal control system (ICS = 0.3349), Compliance with established policy, plans and procedures. (CMP = 0.5336) and Asset and Liability Verification (ALV = 0.4402), all have a positive and relatively moderate relationship with Accountability. It is safe to say that internal audit functions help to improve accountability in all the tertiary institutions in Kano state.

Acct	Coefficient	Std. Error	Z	P-value	95% conf. Interval	
ICI_3	2.9173	1.6116	1.81	0.070	-0.2415	6.0760
ICI_4	3.4436	1.5993	2.15	0.031	-0.3090	6.5781
ICI_5	3.3538	1.6564	2.02	0.043	0.1073	6.6003
CMP_3	1.2568	1.2160	1.03	0.301	-1.1265	3.6401
CMP_4	2.9076	1.2375	2.35	0.019	0.4822	5.3330
CMP_5	4.4798	1.3545	3.31	0.001	1.8250	7.1346
ALV_2	-3.6171	1.9420	-1.86	0.063	-7.4233	0.1891
ALV_3	-0.8487	1.5881	-0.53	0.593	-3.9614	2.2640
ALV_4	-0.4559	1.5720	-0.29	0.772	-3.5369	2.6251
ALV_5	0.9444	1.6439	0.57	0.566	-2.2775	4.1665
ICI_3	0.1435	1.9853			-3.7476	4.0346
ICI_4	3.7467	2.0948			-0.3590	7.8525
ICI_5	8.0727	2.1201			3.9175	12.2279

Source: Research findings

Table 4.3: Ordinal logistic regression analysis result (Logit coefficients)

Number of Observation = 213
LR chi2 (10) = 103.06
Overall P-value = <0.0001
Pseudo R^2 = 0.2516
Log likelihood = -153.25336

Acct	Odds Ratio	Std. Error	Z	P-value	95% conf. Interval	
ICI_3	18.4906	29.7800	1.81	0.070	0.7855	435.2815
ICI_4	31.2979	50.0547	2.15	0.031	1.3620	719.1850
ICI_5	28.6113	47.3922	2.02	0.043	1.1133	735.3282
CMP_3	3.5140	4.2730	1.03	0.301	0.3242	38.0941
CMP_4	18.3127	22.6615	2.35	0.019	1.6196	207.0584
CMP_5	88.2131	119.4860	3.31	0.001	6.2025	1254.5790
ALV_2	0.0269	0.0522	-1.86	0.063	0.0006	1.2082
ALV_3	0.4280	0.6797	-0.53	0.593	0.0190	9.6211
ALV_4	0.6339	0.9964	-0.29	0.772	0.0291	13.8057
ALV_5	2.5715	4.2273	0.57	0.566	0.1025	64.4887
/cut1	0.1435	1.9853			-3.7476	4.0346
/cut2	3.7467	2.0948			-0.3590	7.8525
/cut3	8.0727	2.1201			3.9175	12.2279

Source: Research findings

Table 4.4: Ordinal logistic regression analysis result (Odds ratio)

Number of Observation = 213
LR chi2 (10) = 103.06
Overall P-value = <0.0001
Pseudo R^2 = 0.2516
Log likelihood = -153.25336

Table 4.3 and 4.4 above represent the parameter estimates of the ordinal logistic regression. In Ordinal logistic regression, results of the analysis carried out can either be interpreted in logit coefficients, which is the logarithm of the odds, that is,

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

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

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

C. PREDICTED MODEL

$$\hat{A}i = 2.917 ICI_3 + 3.444 ICI_4 + 3.354 ICI_5 + 1.257 CMP_3 + 2.908 CMP_4 + 4.48 CMP_5 -$$
$$3.618 ALV_2 - 0.849 ALV_3 - 0.456 ALV_4 + 0.945 ALV_5$$

Predicted probabilities of the dependent variable are estimated as:

P($ACCT$ = "disagree") = P($\hat{A}i$ + u ≤ /cut1) = P($\hat{A}i$ + u ≤ 0.143469)

P($ACCT$ = "neutral") = P(/cut1 < $\hat{A}i$ + u ≤ /cut2) = P(0.143469 < $\hat{A}i$ + u ≤ 3.746745)

P($ACCT$ = "Agree") = P(/cut2 < $\hat{A}i$ + u ≤ /cut3) = P(0.143469 < $\hat{A}i$ + u ≤ 8.072691)

P($ACCT$ = "Strongly agree") = P(/cut1 < $\hat{A}i$ + u) = P(8.072691 < $\hat{A}i$ + u)

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

a. INTERNAL CONTROL SYSTEMS

The responses for this factor variable were grouped into 5 categories, namely, 1= Strongly Disagree, 2=Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Disagree. Due to the non-

existence of responses for category 1(Strongly Disagree), it was omitted from the analysis with the analysis done only on the other 4 categories. Category 2 (Disagree) was used as the baseline category in relation to others. The variables ICI_3, ICI_4 and ICI_5 in Table 4.3 and 4.4 above represent the Neutral, Agree and Strongly agree categories respectively for factor variable (Internal Control systems). It can be observed that Internal Control Systems has a positive effect on the Accountability of tertiary institutions in Kano state. This is evidenced on the positive logit coefficients of (ICI_3, ICI_4 and ICI_5) in Table 4.4 above. In terms of Odds ratio, it is safe to say that those who are neutral when it comes to controlling internal systems are 18.5 times more accountable than those who disagree with controlling their internal systems – though this is irrelevant as this category (Neutral) is not significantly different from the baseline category (Disagree), as this is evident from its p-value (0.0703), which is greater than the pre-determined significance level of 0.05. However, those who Agree and Strongly Agree to controlling their internal systems are 31. 3 and 28.6 times respectively and more accountable than those who disagree – this statement is valid at the 0.05 significance level evidenced from their p-values (0.031 and 0.045 respectively), with other factors held constant.

b. COMPLIANCE WITH ESTABLISHED POLICIES, PLANS AND PROCEDURES

The responses for this factor variable were also grouped into 5 categories, namely, 1= Strongly Disagree, 2=Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Disagree. Due to the non-existence of responses for category 1(Strongly Disagree), it was omitted from the analysis, with the analysis done only on the other 4 categories. Category 2(Disagree) was used as the baseline category in relation to others. The variables CMP_3, CMP_4 and CMP_5 in Table 4.3 and 4.4 above represent the Neutral, Agree and Strongly agree categories respectively for factor variable (Compliance with established policies, etc). It can be observed that compliance with established policies, plans and procedures has a positive effect on the Accountability of tertiary institutions in Kano state. This is evidenced on the positive logit coefficients of (CMP_3, CMP_4 and CMP_5) in Table 4.4 above. In terms of Odds ratio, it is safe to say that those who are neutral when it comes to complying with the established policies, plans and procedures are 3.5 times more accountable than those who disagree. Similarly, those who Agree and Strongly agree to complying with the established policies, etc. are 18.3 and 88.2 times more accountable than those who do not comply, all other factors held constant.

c. ASSETS AND LIABILITY VERIFICATION

In similar fashion, the responses for this factor variable were also grouped into 5 categories, namely, 1= Strongly Disagree, 2=Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Disagree. Category 1(Strongly Disagree) was used as the baseline category in relation to others. The variables ALV_2, ALV_3, ALV_4 and ALV_5 in Table 4.3 and 4.4 above represent the Disagree, Neutral, Agree and Strongly agree categories

respectively for factor variable (Assets and liability verification). It can be observed that Assets and Liability verification has a negative effect on the Accountability of tertiary institutions in Kano state. This is evidenced on the negative logit coefficients of ALV_2, ALV_3 and ALV_4 in Table 4.4 above, with only category 5(Strongly agree) denoted as ALV_5 being positive. In terms of Odds ratio, it can be deduced that a unit increase in tertiary institutions in Kano state who disagree to verify their assets and liabilities results in a 97.31% (1- 0.0269 = 0.9731) decrease in their level of accountability. Similarly, a unit increase in the population of tertiary institutions in Kano state who are neutral to assets and liabilities verification results in a 57.2% (1 - 0.428 = 0.572) decrease in the level of accountability. Also, a unit increase in those tertiary institutions who agree to verify their assets and liabilities results in a 36.6% (1 – 0.6339 = 0.3661) decrease in their level of accountability. However, tertiary institutions who strongly agree to verify their assets and liabilities are 2.57 times more accountable than those who strongly disagree to this action, all other factors held constant. More importantly, it can be deduced that there is no significant difference among the institutions who strongly disagree and those who disagree, are neutral, agree and strongly agree to assets and liabilities verification. This is evidenced on the relatively high p-values (0.063, 0.593, 0.772 and 0.566), which are all greater than the pre-determined significance level of 0.05.

D. DISCUSSION OF FINDINGS

The researcher evaluated the impact of internal audit functions on public sector with special emphasis on the financial accountability in tertiary institutions in Kano state.The outcome of the analysis specifically disclosed the following:

- ✓ An internal audit function, particularly the internal control system, has a positive and a relatively moderate relationship with the financial accountability of tertiary institutions in Kano state. This is evidenced on its correlation value (0.3349). Also, there is a significant relationship between the internal control system and the financial accountability of tertiary institutions in Kano state. This can be seen from the p-values displayed in Table 4.4. In similar fashion, it is safe to insinuate that an increase in the level of internal control system of tertiary institutions in Kano state corresponds to an increase in their financial accountability.

- ✓ The compliance structure of the tertiary institutions in Kano state has been found to have a positive and relatively moderate relationship with the financial accountability of such institutions. This is evidenced on its correlation value 0.5336. Also, there is a significant relationship between Compliance with policies, plans and procedures and the financial accountability of tertiary institutions in Kano state. This can be seen from the p-values displayed in Table 4.4. In similar fashion, it is safe to say that an increase in the level of compliance with policies, plans and procedures of tertiary institutions in Kano state corresponds to an increase in their financial accountability.

- ✓ Similarly, Assets and Liabilities verification has been found to have a positive and relatively moderate correlation with the financial accountability of tertiary institutions in Kano state. This is premised on their correlation value 0.4402. Also, there is a non-significant relationship between Asset and liabilities verification and the financial accountability of tertiary institutions in Kano state. This can be seen from the p-values displayed in Table 4.4. In similar fashion, it can be agreed upon that an increase in the level of verification of assets and liabilities of tertiary institutions in Kano state does not necessarily correspond to an increase in their financial accountability.

V. CONCLUSION AND RECOMMENDATIONS

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

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

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

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

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

Though this research has provided some useful insights into internal audit functions and accountability in the tertiary institutions in Kano state, a major limitation of this research is that it was conducted in public tertiary institutions in Kano state, it is questionable whether its findings can be generalized to other states in Nigerian due to the differences among the states and the administrations that form the Nigerian tertiary institutions. However, due to the nature and contributions of tertiary institutions in Kano state to the Nigerian educational sector, this study is to a large extent a reflection of other tertiary institutions.

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