# Internal Audit Practices and Financial Performance of Quoted Manufacturing Firms in Nigeria

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## **ABSTRACT**

This study examined the relationship between internal audit practices and financial performance of quoted manufacturing firms in Nigeria. The specific objectives are to; determine the extent of relationship between personnel audit and profitability in quoted manufacturing firms in Nigeria, to examine the extent of relationship between personnel audit and return on investment in quoted manufacturing firms in Nigeria. The sample size for the study consisted of eighty (80) staff of the selected quoted manufacturing firms in Nigeria. Primary data on internal audit practices and financial performance were collected from respondents using personal interview and questionnaire instruments which were tested and it was found to be reliable with Cronbach coefficient of reliability of 0.70. Data were analyzed using descriptive and Pearson correlation coefficient statistical tools with the aid of statistical package for social sciences (SPSS). Our findings at 0.05 level of significance reveals that personnel audit has a positive and strong relationship with profitability (r = 0.647\*\*) and strong relationship with return on investment (r = 0.653\*\*) in the surveyed quoted manufacturing firms in Nigeria and also compliance audit were found to have strong relationship with profitability (r = 0.769\*\*) and moderate relationship with return on investment (r = 0.596\*\*) in the surveyed quoted manufacturing firms in Nigeria. The results also showed that firm age moderate the relationship between internal audit practices and financial performance. Based on the findings, it was concluded with a model which shows that internal audit practices significantly impact on financial performance in the selected quoted manufacturing firms in Nigeria. Therefore, the study recommends were made in the study.

Key Words: Internal Audit Practices, Financial Performance, Manufacturing Firms

## Introduction

1.1 Background of the Study

In Nigeria today, it is obvious that private firms undertake various transactions through its workers and as such, it is very necessary to give account of their stewardship in order to know the performance of the company. In line with this, the constitution of the Federal Republic of Nigeria has provided for the establishment of audit departments both at Federal and State levels. Section 125 (1) of the 1999 constitution provides that there shall be an Auditor General of the Federation and for each State of the Federation, who shall be appointed in accordance with the provision of section 126 of this constitution. Subsection (2) of this section provides that the public accounts of a state and all departments, ministries, parastatals, and the courts of the state shall be audited by the auditor general of the state who shall submit his reports to the House of Assembly of the state concerned. This clearly highlights the importance of Auditors in public sector entities whose by their work would achieve good internal control system, deter corruption, ensure good corporate governance system, performances and promote accountability and transparency. Internal audit in the public sector is aimed at checking mistakes, shortcomings and misdeeds in the public administration. In both private and public sectors, the responsibilities for internal auditing rest with internal auditors (Azubike, 2007). According to the Institute of Internal Auditors (IIA), internal audit is "an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. According to the Institute of Chartered Accountants of England and Wales (ICAEW) Internal Auditing "is an independent appraisal function established within an organization to examine and evaluate its activities as a service to the organization. Internal audit is a control mechanism that can curtail incidence of fraud and misappropriation in private and public sectors if adequately applied. The role of internal audit departments in the public sector is to ensure the smooth functioning of internal controls, by reviewing policies and practices in the ministries in order to avoid noncompliance or loss of financial resources. Internal audit is considered as the backbone of the business accounting as it is the section that checks all business processes. Public sector internal audit functions are less concerned with cost and profitability factors but more with how resources are obtained and used.

Control mechanisms are those processes set up to monitor and to direct, promote or restrain the various activities of an enterprise for the purpose of achieving set objectives. By detecting weaknesses in management operations, internal auditing provides a basis for correcting deficiencies that have eluded the first line of defense before these deficiencies become uncontrollable or are exposed in the external auditor's report (Imo and Ohaka, 2016).

Internal auditors have noted cases where funds are advanced to staff but were never recovered. When an organization suddenly collapses, the often resounding question is "what went wrong?" A breakdown in the internal controls system, of which internal auditing plays key roles, is the usual cause. A major challenge faced by the private sector is the existence of high level of fraud, corruption and irregularities. Although fraud is not a subject that any organization wants to deal with, the reality is that most organizations experience fraud to some degrees. Fraud can be defined as a misstatement of fact that is material in nature which involves a criminal deception that injures the other party (Arena and Azzone, 2009). The American Institute of Certified Public Accountants (AICPA) defined fraud as misrepresentation by a person of a material fact known by that person to be untrue or made with reckless indifference as to whether the fact s true with intent to deceive and with the result that another party is injured. It is a fact that any institution with a weak internal control system is dangerously exposed to fraud.

In the absence of effective internal audit, individuals with questionable character may exploit inherent loopholes to their advantage. Flaws and loopholes may still exist in an organization despite the existence of internal control system, which can easily be circumvented by individuals who are inclined towards fraudulent activities. Therefore, measures have to be put in place to checkmate such fraudsters. One best way of curbing the menace of fraud is through the institutionalization of a vibrant and effective internal audit unit (Abu-Saeed and Kabir, 2012).

The internal audit function may help the organization to address its risk of fraud via a fraud risk assessment, using principles of fraud deterrence. It can be argued that private sector employees will be more careful with the private sector resources and more reluctant to commit fraud when an active, effective and capable internal audit function evaluates their actions on a continuous basis. The role of internal audit will contribute towards the improvement of accountability structures and ultimately towards financial performance, which will add significantly to value relevance. It is against this background that this study is aimed at examining internal audit practices and financial performance of Quoted manufacturing firms in Nigeria.

# 1.3 Aims and Objectives of the Study

The general aim of this study is to examine empirically the relationship between internal audit practices and financial performance of quoted manufacturing firms in Nigeria. Other specific objectives of the study are as follows:

- a) To determine the extent of relationship between personnel audit and profitability in quoted manufacturing firms in Nigeria.
- b) To examine the extent of relationship between personnel audit and return on investment in quoted manufacturing firms in Nigeria.
- c) To investigate the extent of relationship between compliance audit and profitability in quoted manufacturing firms in Nigeria.
- d) To examine the extent of relationship between compliance audit and return on investment in quoted manufacturing firms in Nigeria.
- e) To examine the extent at which firm age moderates the relationship between internal audit practices and financial performance in Quoted manufacturing firms in Nigeria.

## 1.4 Research Ouestions

The following research questions are formulated for the study.

- 1. To what extent does personnel audit relate with profitability in quoted manufacturing firms in Nigeria.
- 2. To what extent does personnel audit relate with returns on investment in quoted manufacturing firms in Nigeria.
- 3. To what extent does compliance audit relate with profitability in quoted manufacturing firms in Nigeria.
- 4. To what extent does compliance audit relate with return on investment in quoted manufacturing in Nigeria.
- 5. To what extent does firm age moderates the relationship between internal audit practices and financial performance in quoted manufacturing firms in Nigeria.

## 1.5 Research Hypotheses

The following null hypotheses are formulated for the study.

**Ho**<sub>1</sub>: There is no significant relationship between personnel audit and profitability in quoted manufacturing firms in Nigeria.

 $H_{O2}$ : There is no significant relationship between personnel audit and return on investment in

quoted manufacturing firms in Nigeria.

 $H_{O3}$ : There is no significant relationship between compliance audit and profitability in quoted manufacturing firms in Nigeria.

**Ho4:** There is no significant relationship between compliance audit and return on investment in Quoted manufacturing firms in Nigeria.

**Ho5:** Firm Age does not significantly moderate the relationship between internal audit practices and financial performance in quoted manufacturing firms in Nigeria.

#### Literature Review

Several scholars have studied the concept of internal audit and effectiveness of performance. Deepak (2010) sees internal audit as an independent and objective assurance and consulting function designed to help an organization to achieve its objectives. He identifies the objectives to include: Effectiveness and efficiency of operations (programmes and projects), reliability of financial and operational information, safeguarding of assets, compliance with rules and regulations and prevention and detection of fraud. The objectives of internal audit are unarguably broad but government differs in their commitment to them. This is why it is generally asserted that the effectiveness of internal audit can only be as good as the commitment of government to pursue these objectives.

Internal audit is an element of internal control set up by the management (Kiabel 2002). He further defined internal audit as the independent appraisal activity within an organization for the review of account, financial and other operations as a basis for service to management. Thus, the job of the internal auditor is to investigate and appraise the system of internal control and the efficiency with which the various units of the organization are carrying out their assigned functions. Leslie said that where internal audit exist, internal controls is greatly facilitated in order to achieve the planned objectives, management must have to set reasonable procedure for the internal audit department to apply. He went further to state that if the internal auditor would achieve the aim of management that is profit maximization, independence is also a necessity.

In the same vein, Sir Author E. Cutforth (1975) defined internal audit as a review of operation and records sometimes continuous, undertaken within a business by specially assigned staff. He went further to say that if management set up a strong internal audit department with its own autonomy, the scarce fund of an organization would be adequately and effectively managed. Internal auditors have responsibilities to carry out some functions, some of which are: (i) provide management with information about the adequacy and effectiveness of the organization system of internal control, (ii) Review and improvement of the system of internal check, (iii) The examination and review of the organization policies and activities to ensure compliance with statutory requirement (iv) Internal auditors should be able to undertake at all times special investigation at the management request.

Internal controls refer to the measures instituted by an organization so as to ensure attainment of the entity's objectives, goals and missions. They are a set of policies and procedures adopted by an entity in ensuring that an organization's transactions are processed in the appropriate manner to avoid waste, theft and misuse of organization resources. Internal Controls are processes designed and affected by those charged with governance, management, and other personnel to provide reasonable assurance about the achievement of an entity's objectives with regard to reliability of the financial reporting, effectiveness and efficiency of operations and compliance with applicable laws and regulations (Nwindi, 2008). It is worth noting that internal controls

only provide reasonable but not absolute assurance to an entity's management and board of directors that the organization's objectives will be achieved.

The United Kingdom Auditing practices committee (1979) defined internal control as the whole system of control, financial and otherwise established by management in order to carry on the business of the enterprise in an orderly and effective manner to ensure adherence to managerial policies and directives, safeguard the assets and ensure as far as possible the completeness and accuracy of the records, the prevention and detection of errors, fraud and the timely preparation of financial information. According to International Accounting Standards (IAS), internal control is the combined plan, method and procedures which can safeguard the firm's assets promote operational efficiency and encourage adherence to prescribed policies.

Robertson and Davis (1988) defined Internal Audit system as a set of client procedures both computerized and manual imposed on the accounting system for the purpose of preventing, detecting and correcting errors and irregularities that might enter the system and there by affect the firm's financial statement.

Walter and William (1982), assert that the role and purpose of internal control system is meritable because internal control consists of the measures, record procedures and plan of an organization that deals mainly with safeguarding of asset and ensuring financial records are accurate and reliable. They further explained that the need for internal control can be seen in its roles and purposes which are financial internal control and administrative internal control.

The need for internal control system under this are: (i) to ensure the assets of the company is protected, (ii) Protecting against improper disbursement of the assets for the company, (iii) Assuring and securing the accuracy and reliability of all accounting, financial and other operating information of the company.

Internal auditing is often seen as an overall monitoring activity with responsibility to management for assessing the effectiveness of control procedures which are the responsibility of other functional managers (Kent, 2003). Internal auditing is taking on increased importance in many of today's global organizations by assisting management in evaluating controls and operations and thereby providing an important element of global control. Internal auditing is an independent objective assurance and consulting activity designed to add value and improve an organization's operations (Kent, 2003). Being independent and objective, internal auditing helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes. According to Millichamp (2000), Mainoma (2007) and Sani (2009), internal auditing includes among others reviewing the adequacy and effectiveness of internal control system, its compliance with government regulations, accounting rules and standards, securing the assets of the organization in order to prevent misappropriation. This ensures that the organizational goals and objectives are achieved. Furthermore, when it come to the issues of legality of auditing in Nigeria, the legal instruments that set the overall framework for the financial management, auditing procedures, government accounting and financial reporting for either the Federal, State or Local government are: The Constitution of the Federal Republic of Nigeria 1999, the Finance Control and Management Act 1958, the Audit Ordinance No. 28 of 1956, the Annual Appropriation Act and the financial memoranda of 1999. While in the aspect of professionalism, is usually handled by the professional bodies such as ICAN and ANAN through Nigerian Standard on Auditing (NSA) (Aruwa, 2003). However, with the adoption of IFRSs in Nigeria, NSAs are gradually being phased out.

The dimensions of internal audit practices are many but for the purpose of this study therefore, personnel audit and compliance audit shall form the proxies of the study.

Personal audit is a term used for a case study of human resources in the organization. Personnel audit can be conducted in every aspect of management of human resources. For example, in terms of planning manpower requirements, an audit can be made of the effectiveness of past forecasting and scheduling to ascertain how far the needs were identified in time. If such an audit indicates that the forecasting was inaccurate, management can start thinking on how to improve the forecasting techniques and variables for more accurate results in the future.

Again, over a period of time, descriptions are likely to get out-of-date. Revised thinking might be indicated with regard to the sources of recruitment so far used. An evaluation can also be made of the effectiveness with which interviews and psychological test, if any was conducted so that improvement can be incorporated in these areas. Motivating the personnel is perhaps the most important aspect of manpower management. An evaluation may whether the employees do feel that the organization is a good one to work for and they have a bright career within it, provided they are willing to put fourth their best efforts. In the area of controlling manpower resources, it is necessary to identify the marginal employees for elimination where possible.

A compliance Audit is a comprehensive review of an organization's adherence to regulatory guidelines. Here, audit reports evaluate the strength and thoroughness of compliance preparations, security, policies, user access controls and risk management procedures over the course of a compliance audit. The main objective of conducting an internal or external compliance audit is to assess the overall effectiveness of a business compliance practices and protocols. While examining processes and transactions, a compliance auditor must determine whether the item being examined complied with established standards. The scope of a compliance audit may be related both to underlying or not. Hence, the content and scope of compliance audit.

Financial performance can be defined as a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues (Mills, 2008). This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. The performance measurement concept indicates that employees can increase the value of the firm by; increasing the size of a firm's future cash flows, by accelerating the receipt of those cash flows, or by making them more certain or less risky (Cadbury, 1992). There are many different ways to measure financial performance, but all measures should be taken in aggregation. Some of the indicators of financial performance are net profit, profitability, liquidity ratios, asset management ratios, profitability ratios, leverage ratios and market value ratios.

In line with the issues earlier discussed therefore, the study will adopt the following measures of financial performance: profitability and return on investment.

Profitability is the capacity to make a profit and a profit is what left over from income earned after you have deducted all costs and expenses related to earning the income. Profitability ratio is a measure of profitability, which is a way to measure a company's performance. Profitability ratios are financial metrics used by analysts and investors to measure and evaluate the ability of a company to generate income (profit) relative to revenue, operating cost, balance sheet assets, shareholders equity over time. They show how well a company utilizes its assets to produce

profit and value to shareholders. Return on Investment (ROI) is a performance measure used to evaluate the efficiency of an investment or compare the efficiency of a number of different investments. ROI is a ratio between the net profit and cost of investment resulting from an investment of some resources. A high ROI means the investment's gains is favourable to its cost. To calculate ROI, the benefit (or return) of an investment is divided by the cost of the investment. The result is expressed as a percentage or a rating

Aging occurs at different levels, individuals, products, routines, firms' cohorts, industries. Most interesting age affect what happens within the first 5-7 years. Firms' growth and firm death concentrated up to age 5. Managing rare events has opportunity costs. These costs are highest for small firms which tend to be more productive than large ones, and for young firms which are exposed to many hazards. These forces increase the vulnerability of younger firms to severe event. Firm age distinctly affect firms' financial management of infrequent risks. Age proxies earning uncertainty: young firms grow faster but also fail at higher rates (Caves 1998; Haltiwanger 2013). Young firms face many existential threats related to managing internal financial and human resource and external relationship with customers, suppliers, investors and competitors (Thornhill and Amit 2003). New firms do not know how profitable they will be relative to other firms. However, experience over time clarifies these expectations thus reducing firms, uncertainty. The broad distribution of young firms may also influence their financing: the prospect of highly successful start-up increases their willingness to borrow relative to their older counterparts, yet the greater possibility of their failure decrease financial willingness to borrow relative to their older counterparts, yet the greater possibility of their failure decrease financial institutions' willingness to lend to them. These young firms can be expected to (i) insure against a rare events less often than older firms (ii) have greater credit demand (iii) face greater credit constraints.

## **Empirical Review**

Gholamreza and Mohammad (2015), investigated the Survey of the Relationship between Auditing Quality and the Profitability in the Companies Accepted in Tehran's Exchange Market. The specific objective was to determine auditing quality and this make use of two scales of auditor size and the auditor's tenure period. The study used a total number of 52 companies accepted in Tehran's securities exchange market for the surveyed. The test statistics for data analysis was regression model .The study findings show that generally there is a positive and weak relationship between the auditor size (auditor's good fame) and the auditor's tenure period and the profitability ratios. Also, there is a positive but non-significant relationship between profitability and auditors size and there is a positive and significant relationship between tenure period and profitability. This is indicative of the fact that in the employer firms in which an auditor performs the job of auditing for several years, the amount of profitability and also its sustainability is higher on the condition that the auditor's tenure period is due to the auditing organization.

Enofe, Akani and Oladutire, (2013), Investigated Compliance Audit and Corporate Financial Performance: Banks in Rivers State. The paper examined compliance auditing and corporate financial performance. The quasi-experimental research design is adopted for this paper. The respondents were managers drawn from banks operating in Rivers State. The research hypotheses developed in this study were analyzed and tested by the use of the spearman's rank order correlation. Results indicated that there is a strong and significant relationship between auditing procedures and return on investment; there is a positive and significant relationship

between auditing procedures and profitability; there is a strong and positive relationship between auditing rules and return on investment; and there is a significant and positive relationship between auditing rules and profitability. It was concluded that compliance auditing is a process of conducting audit in line with all the applicable known rules and procedures that gives an audit a high regard in the settlement of corporate governance issues and the enhancement of corporate financial performance of organizations. It was recommended that banks should plan their audit processes in line will all relevant standards and regulations guiding audit processes in order to assess their performances; and banks should adopt the use of compliance audit process in order to achieve a comprehensive review of their organization's adherence to regulatory rules and guidelines for the provision of valid and reliable audit reports for all stakeholders.

Ebrahim, Abdullah and Faudziah (2014), Investigated the effect of the Internal Audit and Firm Performance: A Proposed Research Framework. The study attempts to propose a structure of the relationships between the internal audits characteristics (IAC); such as professional qualifications of the chief audit executive of the Internal Audit (IA), size, experience, and qualification; and firm performance. The presence of an internal audit department is significant as it is considered as the main element in employing accounting systems and this, in turn, assists in evaluating the department's work. The internal audit is deemed as the core of business accounting as it is the section that keeps track of all businesses associated with the sector. The internal audit efficiency assists in developing the company's work because the financial reports present the internal audit department's quality.

# Methodology

## 3.1 Research Design

The research design adopted in this study was quasi-experimental design. The reason is that the entire population cannot be studied and a survey study was considered appropriate

# 3.2 Population and Sample Size

The study population consists of all the Quoted manufacturing firms in Nigeria. The choice of quoted manufacturing firms in Nigeria was necessitated on the fact that manufacturing firms in Nigeria have much similarity with respect to size, structure, operation and management (Akinsanya, 1992). It is expected therefore that the findings of the study will have equal applicability to all manufacturing firm in other States in Nigeria. For the purpose of accessibility therefore, five (5) quoted manufacturing firms in Nigeria were randomly selected as the accessible population with one hundred (100) staff as the respondents.

**Table 3.1: Respondents** 

S/NO Quoted Manufacturing Firms Employee

1.	Dangote Cement Plc	20
2.	Pharmaceutical Africk Plc	20
3.	Nigerian Breweries Pk	20
4.	Unilever Nigeria Plc	20
5.	Vita foam Nigeria Plc	20
	Total	100

Source: Nigerian Stock Exchange 2017

Information obtained from the personnel department at their offices showed that there are about one hundred (100) staff who works in the relevant department such as accounts/ finance, personnel, audit etc from the rank of senior staff and above.

## Sample Size

The simple random sampling technique was adopted in this study because it concerns a selection among a population. This Sampling technique also provides range of methods that will enable the researcher reduce the quantity of data needed to be collected by considering only a data from a subgroup rather than all possible cases. The sample size therefore was determined by using the Taro-Yame formula as adopted in Baridam (2001) and the formula are as shown below:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = Sample Size Sought e = Level of Significance

N = Population

Hence;

n = 
$$\frac{N}{1+N(e)^2}$$
, N=100  
e = level of significance of 0.05  
n= $\frac{100}{1+100(0.05)^2}$  =  $\frac{100}{1+0.25}$   
=  $\frac{100}{1+1.25}$  = 80

## 3.3 Method of Data Collection

The method of data collection that was adopted in this study were; questionnaire, interviews and observations. These were considered as primary sources. Bailey (1980) defined primary sources of data collection as those methods in which data are collected primarily for the purpose of which it was meant for or the problem that the study wishes to solve. Thus, the primary source in this study was the administration of questionnaire on the staff of quoted manufacturing firms under study. The distribution and collection of the copies of these questionnaires was done

personally by the researcher.

# 3.4 Method of Data Analysis

The data generated were analyzed using descriptive statistics for the univariate characteristics of each variable. The descriptive Statistics covers mean scores and standard deviation, while the secondary data analysis was done using the Pearson product moment correlation coefficient with the aid of statistical package for social science.

## 3.5 Measurement of Variables

The measurement of variables in this study include; the independent and dependent variables. The independent variable also known as (predictor variable) - internal audit practices and the other dependent variable also known as (criterion variable) - financial performance were used to test the hypotheses. The independent variable- internal audit practices has the following; dimensions of personnel and compliance audit, also the dimensions of the dependent variables include; profitability and Return on Investment. The instrument for data collection was structured questionnaire designed on five points likert's scale type

## 3.6 Validity of Research Instruments

Research instrument is said to be valid when it measures what it intends to measure. The researcher established construct and content validity of the instrument for this study. The instrument was presented to experts in quantitative analysis in Faculty of Business Studies, Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt to ascertain whether or not the items on the instrument were related to the hypothesis which were tested. The feedback from the experts shown that the items on the instrument were adequate in generating data required to test the hypothesis.

# 3.7 Reliability of Research Instruments

Reliability refers to the degree to which a measuring instrument gives the same scores over repeated trials. The reliability of the instrument were tested using Cronbach alpha coefficients, with the aid of the statistical package for social Science. |The reliability co-efficients gives 0.70 and above which were considered appropriate.

## Results

#### 4.1 Data Presentation

**Table 4.1: Questionnaire Distribution** 

Numbers	Questionnaire	Percentage (%)
No. sent out	80	100%
No. Returned	65	81%
No. Not Returned	15	19%

Source: Researcher's Computation Using SPSS Version 25

Table 4.1 shows the distribution and collection of questionnaire sent to the respondents. It was shown that 80 copies of questionnaires were distributed to the respondents representing 100%. 65 copies of questionnaires representing 81% were correctly filled and successfully collected from the respondents; while 15 copies of the questionnaires representing 19% were not collected. However, the researcher used the 65 copies of questionnaires correctly filled to represent 100% as the basis for the analysis.

## Univariate Analysis

This section of the study is concerned with the reliability of the data to ensure that only useful data are used for univariate, bivariate and multivariate analysis.

Table 4.5: Descriptive Statistics on all Variables of the Study Statistics

	Personnel Audit	Compliance Audit	Firm Age	Profitability	Return on investment	Internal Audit nractices	Financial Performance	_
N	Valid	65	65	65	65	65	65	65
	Missing	0	0	0	0	0	0	0
Mean	3.06	3.03	3.24	3.14	3.10	3.10	3.14	
Std. Deviation	1.331	1.286	1.255	1.195	1.298	1.298	1.298	

## Researcher's Computation using SPSS Version 25

Table 4.5 shows the descriptive Statistics of all variables of the study. It was shown that: personnel audit has a mean value of 3.06 and a standard deviation of 1.331; compliance Audit has a mean value of 3.03 and a standard deviation of 1.286; firm age had a mean value of 3.24 and a standard deviation of 1.255; profitability has a mean value of 3.14 and a standard deviation of 1.298; return on investment had a mean value of 3.10 and a standard deviation of 1.298; internal audit practices has a mean value of 3.10 and a standard deviation of 1.298; and financial performance has a mean value of 3.14 and a standard deviation of 1.298. Therefore the researcher upheld the prevalence of the variable

## 4.2 Data Analysis

# **4.2.1** Bivariate Analysis

It is important to test the hypotheses having completed the univariate analyses. Thus this section of the study is concerned with the testing of the formulated hypotheses in 1-5. To carry out the testing of the hypotheses, Everitt and Dunn (2001) was adopted as a guide to determine the r value and the extent of the relationship between the variables.

Table 4.11: Range of Relationship and Descriptive Level of Association of Relationship

Range of r Values	Descriptive level of Association of r
$\pm 0.80 - 1.00$	Very strong
$\pm 0.60$ -0.79	Strong
$\pm 0.40$ -0.59	Moderate
$\pm 0.20$ -0.39	Weak
±0.00-0.19	Very weak

Source: Researcher's Computation using SPSS Version 25

Table 4.12: Correlation Analysis on the Extent and Direction of the Relationship between Internal Audit Practices and Financial Performance

		Intel Audit	Practices	Financial	Performance	
Internal Audit Practices	Pearson Correlation		1		.876**	
	Sig. (2-tailed)				.000	
	N		65		65	
Financial Performance	Pearson Correlation		.876**		1	
	Sig. (2-tailed)		.000			
	N		65		65	

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

# Source: Researcher's Computation using Version 25

Table 4.12 shows the correlation analysis on the extent and direction of the relationship between internal audit practices and financial performance. It showed the correlation coefficient of  $r=0.876^{**}$  with the significant/probability value =0.00 less than 0.05 level of significant. From the classification in table 4.11, the value is very strong indicating a positive relationship between internal audit and financial performance. Also, the correlation coefficient is positive which indicates that an increase in financial performance is associated with an increase in internal audit practices. Thus the researcher conclude that there is a positive relationship between internal audit practices and financial performance of selected quoted manufacturing firms in Nigeria

Table 4.13: Correlation Analysis on the Extent and Direction of the Relationship between Personnel audit and Profitability Correlations

		Personnel Audit	Profitability
Personnel audit	Pearson Correlation	1	.647"
	Sig. (2-tailed)		.000
	N	65	65
Profitability	Pearson Correlation	.647**	1
	Sig. (2-tailed)	.000	
	N	65	65

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

## Source: Researcher's Computation using SPSS Version 25

Table 4.13 shows the correlation analysis on the extent and direction on the relationship between personnel audit and profitability. The table showed a correlation coefficient of r=64.7% with a correspondent probability value of 0.000 which significant at 5% level of significance. Based on the classification of r value in table 4.11, there exist a strong correlation between personnel audit and profitability. Also the correlation coefficient is positive which indicates that an increase in profitability is associated with an increase in personnel audit practices. Since the calculated Probability Value (PV) <0.05 (level of Significance), therefore, we accept the null hypothesis and reject alternative hypothesis.

## Test of Hypothesis two(2)

Hypothesis two(2) test the Relationship between Forensic Auditing and Return on Investment Correlations and the results are shown in table 4.14 below

Table 4.14: Correlation Analysis on the Extent and Direction of the Relationship between Forensic Auditing and Return on Investment Correlations

_		Personnel Audit	ROI
Person	nel audit Pearson Correlation	1 .	653
	Sig. (2-tailed)		**
	N	65	0.000
ROI	Pearson Correlation	0.653**	0.65
	Sig. (2-tailed)	.000	1
	N	65	

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

Source: Researcher's Computation using SPSS Version 25

Table 4.14 shows the correlation analysis on the extent and direction of the relationship between personnel audit and return on investment. The table showed a correlation coefficient of  $r=0.653^{**}$  with a correspondent calculated probability value of 0.000 which is significant at 5% level of significance. Based on the classification of r value in table 4.11, there exist a strong relationship between personnel audit and return on investment. Also the correlation coefficient is positive which indicate that an increase in return on investment is associated with an increase in personnel audit practice. Since the calculated Probability Value (PV) <0.05 (level of Significance), therefore, we accept the null hypothesis and reject alternative hypothesis.

## Test of Hypothesis three(3)

Hypothesis three(3) test the Relationship between Compliance Audit and Profitability Correlations and the results are shown in table 4.15 below

Table 4.15: Correlation Analysis on the Extent and Direction of the Relationship between Compliance Audit and Profitability Correlations

		Compliance Audit	Profitability
Compliance Audit	Pearson Correlation	1	.769"
-	Sig. (2-tailed)		.000
	N	65	65
Profitability	Pearson Correlation	.769"	1
	Sig. (2-tailed)	.000	
	N	65	65

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

Source: Researcher's Computation using SPSS Version 25

Table 4.15 shows the correlation analysis on the extent and direction of the relationship between segregation of duties and profitability. The table showed a correlation coefficient of r = 0.769\*\* with a correspondent probability value of 0.000 which is significant at 5% level of significance. Based on the classification of r value in table 4.11, there exist a strong relationship between

compliance and profitability. Since the calculated Probability Value (PV) <0.05 (level of Significance), therefore, we accept the null hypothesis and reject alternative hypothesis.

# **Test of Hypothesis four(4)**

Hypothesis four (4) test the Relationship between Compliance Audit and Return on Investment Correlations and the results are shown in table 4.16 below

Table 4.16: Correlation Analysis on the Extent and Direction of the Relationship between compliance Audit and Return on investment Correlations

		Compliance Audit	Return on Investment
Compliance Audit	Pearson Correlation	1	.596**
	Sig. (2-tailed)		.000
	N	65	65
Return on Investment	Pearson Correlation	.596"	1
	Sig. (2-tailed)	.000	
	N	65	65

<sup>\*\*.</sup> Correlation is significant at the  $\overline{0.01}$  level (2-tailed).

Source: Researcher's Computation using SPSS Version 25

Table 4.16 shows the correlation analysis on the extent and direction of the relationship between compliance Audit and Return on Investment. The table showed a correlation coefficient of  $r=0.596^{**}$  with a correspondent calculated probability value of 0.000 which is significant at 5%level of significance. Based on the classification of r in table 4.11, there exist a moderate relationship between compliance Audit and Return on Investment. Since the calculated Probability Value (PV) <0.05 (level of Significance), therefore, we accept the null hypothesis and reject alternative hypothesis.

## Test of Hypothesis five(5)

Hypothesis five (5) **Test The Relationship Between Impact Of Firm Age On The Relationship Between Internal Audit Practices And Financial Performance Correlations And The Results Are Shown In Table 4.17 Below** 

Table 4.17: Partial Correlation Analysis on the Impact of Firm age on the Relationship between Internal Audit Practices and Financial Performance Correlations

Control Variables			Internal	Financial	Firm
			Audit	Performance	Age
			Practices		
		Correlation	1.000	.876	.750
	Internal Audit Practice	S	•	.000	.000
	Significance (2-tailed)				
		Df	0	63	63
		Correlation	.876	1.000	.721
-none-a	Financial Perform	nance	.000		.000
Significance (2-ta	ailed)				
		Df	63	0	63
		Correlation	.750	.721	1.000
	Firm Age		.000	.000	
		Df	r.	63	0
		Correlation	1.000	JS5O	
	Internal Audit Practice	S		.000	
Times A as		Df	0	62	
Firm Age	Financial Performance	Correlation	.850 .000	1.000	
		Df	62	0	

a. Cells contain zero-order (Pearson) correlations.

Source: Researcher's Computation using SPSS Version 25

Table 4.17 shows the partial correlation analysis on the impact of firm age on the relationship between internal audit practices and financial performance. It was shown that a strong and positive significant relationship exist between internal audit practices and financial performance (r = 0.876, PV = 0.000 < 0.05). Analysis in table 4.17 also show that firm age has a significant and direct positive relationship with internal audit practices (r = 0.750 PV = 0.000 < 0.05) and with financial performance (r = 0.721, PV = 0.000). The positive r values indicate that: financial performance improves as internal audit practices increases; also internal audit practices increases with an increase in firm age. The difference between the Zero Order Partial Correlation (ZPC) and the Controlled Partial Correlation (CPC) > 0.01, conclude a significant moderating influence. Zero Order Partial Correlation (ZPC) = 0.876, Controlled Partial Correlation (CPC) = 0.998 The difference between the Zero Order Partial Correlation (ZPC) and the Controlled Partial Correlation (CPC) (0.876 - 0.850) = 0.026> 0 C1 therefore The researcher rejects the null hypothesis and conclude that firm Age significantly moderate the relationship between internal audit practices and financial performance.

# 4.5 Discussion of Findings

The test of hypotheses was done using primary data obtained from the respondents and the extent and direction of the relationship between the internal audit practices dimensions (personnel

audit, compliance audit) and the measures of financial performance (profitability, return on investment) and also the effect of the internal audit practices and its predictor variables on financial performance and its measures were determined. Table 4.12 has to do with the analysis on the extent and direction of the relationship between internal audit practices and financial performance. It found that there is a positive and strong relationship between internal audit practices and financial performance, and also internal audit practices statistically affect financial performance. The findings from this test of hypothesis was in line with the assertion of KPMG (1999) that found that the internal audit function in organizations contribute substantially to performance improvement and assist in identifying profit evidence, incorporate disasters, particularly financial fraud consistently documents an association between weak governance. Similarly, hypothesis two, it was found that there is a significant positive relationship between personnel audit and profitability, also personnel audit statistically affects profitability. Hence, it was concluded that there is a significant relationship between personnel audit and profitability and also that personnel audit statistically affect profitability and the implication of this finding is that an increase in profitability is associated with an increase in personnel audit; this position is in line with the study of Mawanda (2008) who conducted a research on effects of internal control systems on financial performance in institution of higher learning Uganda. In his study he investigated and sought to establish the relationship between internal control systems and financial performance. The Study therefore acknowledged role of internal audit department to establish internal controls which have an effect on the financial performance of organizations. Bjorkman (1998) assert that an influence relationship may develop in any context whenever one party can persuade others of his ascendancy through his own resources. As organizations become large, the need for managers to handle greater quantities of information increases to a point where they have to initiate controls, such as rules, documentation, specialization of roles and functions, extended hierarchies down to hierarchical structures (Chid and Mansfield, 1972). Kwadwalk (1972) found that large firms were more diversified in product lines, as well as more divisionalized and employed mass production techniques and more sophisticated controls.

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