ETHICAL FACTORS AND INTERNAL AUDIT EFFECTIVENESS: EVIDENCE OF DEPARTMENTS AND AGENCIES IN KWARA STATE, NIGERIA

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Abstract

In any organisational setting, a value-addition role of an internal audit unit is to ensure that an installed internal control system is adhered to so that organisation objectives are achieved optimally. For internal audit to effectively perform this role, particularly in public sector organizations, the ethical practices of internal auditors are of necessity. Going by the spate at which corruptions and other forms of financial maladministration are reported in Nigeria public space, the extent to which practices of integrity, independent posture of internal auditor and competence are observable among department and agencies in Nigeria call for empirical investigation. On this note, this study investigated the effect of ethical factors on the internal audit effectiveness of government departments and agencies in Kwara State. The recent press release by the press secretary to the Executive Governor of Kwara State on the payment of salary to "ghost workers" cutting across MDAs informed the choice of this state as unit of analysis. The study employed a cross-sectional survey research design for the collection of primary data. A structured questionnaire was administered to two hundred and sixteen (216) respondents randomly selected from departments and agencies. Data obtained from the instrument was analyzed using both the descriptive and inferential statistics (Partial Least Square (PLS) estimation technique). With the results of the regression analysis (t-value and P-values<0.05: Integrity: t-value 3.981 & P-values<0.05; Competence: t-value 1.497& P-values<0.05 and Independence: t-value 5.108 & P-values<0.05), the study inferred that internal auditor's integrity, internal auditor's competence and internal auditor's independence have positive and significant effect on the internal audit effectiveness of departments and agencies in Kwara State. This result implies that ethical practices in the areas of integrity, competence and independence of internal auditor significantly explain variation in the value-addition roles of internal auditor in ensuring that internal control system is adhered to. Given these findings, government is advised to strengthen its mechanism that will encourage members of internal audit unit to be honest in the pursuit of their responsibilities. Government should also see the need to employ only professionally qualified individual to the post of internal auditor, as well as embarking on regular training to enhance internal auditors' skills. Finally, a reporting structure that will not compromise the independence of internal auditor should be put in place and enforced.

Keywords: Internal Auditor**,** Integrity, Competence, Independence, Internal Audit Effectiveness.
JEL Classification: H83, M42

1 Introduction

The effectiveness of an internal audit unit in a public sector setting is reflected in the effective management of public fund through the provision of both physical and social infrastructures. An internal audit department in any organisation performs the function of ensuring reduction in any form of irregularities, financial and material wastages, risk management, strengthening internal control systems and sound corporate governance (Abdullah & Mustapha, 2020). However, the purpose for which this department is established seems not to be yielding the expected outcomes due to various cases of financial misappropriation and other

forms of irregularities in government institutions that had rocked national dailies in different parts of the world. A global fraud survey conducted by the Association of Fraud Examiners in 2016 showed that government and public administration sector was ranked second (2nd) after banking and financial services industry for cheque tampering, payroll schemes, skimming and cash theft (Centre for Financial Reporting Reforms, 2018). Furthermore, the report of Association of Certified Fraud Examiner (ACFE, 2020) showed that the United States lost more than seven hundred and fifty ($750 billion) dollars to fraudulent activities which represents 5% of the gross domestic product.

Nigerian public sector has also recorded series of irregularities, cutting across all sectors of the economy. Many high-ranking public officers both at national and state levels have been indicted for various forms of fraudulent practices (see: Punch October, 2 2015 and The Nation Dec 2, 2015).

These irregularities are usually discovered through special investigation notwithstanding the existing internal audit units of the various Ministries, Departments and Agencies (MDAs) where these large-scale frauds have occurred. For this, effectiveness of internal audit units in MDAs both at National and Sub-national level becomes a matter of concerns. For instance, cases of salary payment to "ghost workers" (non-existing workers) were reported across MDAs in Kwara State in recent time as stated in one of the press releases by the Press Chief Secretary to the Governor of the State.

Although relevant professional bodies like Institute of Internal Auditors (hereafter, IIA) provides guidance for internal auditors in discharge of Professional Practices through the International Standards for the Practice of Internal Auditing (Standards) (IIA 2009), the extent of compliance, particularly as it relates to ethical practices seem not to be encouraging. The professional pronouncements spelt out the qualities required of an internal auditor such as professional due care, having sufficient knowledge, analytical skill, how to report to the management and the Board as well as risk assessment (IIA, 2017).

For the fact that cases of mismanagement of public fund have become a common trend in the face of internal audit units set up largely to prevent this type of risks among others, even with available standard on ethical practices, empirical investigation on the extent to which various components of ethical practices may largely influence the effectiveness of internal audit practices is not out of place. In specific term, this study quantitatively examined the influence integrity, competence and independence of internal auditors on the effectiveness of internal audit practices of MDAs in a states in the North-central geo-political zone of Nigeria.

Though, prior empirical studies (such as Unegbu& Kida, 2011; Abu-Saeed & Kabir, 2012; Abiola & Oyewole, 2013; Joseph, Albert & Byaruhanga, 2015; Sorunke, 2016; Fitryah, 2016; Goerge, Purnamasari, Arezona, Lestira& Mey, 2018) examined the impact of internal audit characteristics on fraud prevention as well as the relationship between internal audit effectiveness and independence, experience and qualification of staff, management support and size of the internal audit department (Onoja & Haruna, 2015; Sorunke, 2016; Oyewumi, Ayoib& Popoola, 2017), with the existent of literatures reviewed for this work, no study has specifically focused on the effect of internal auditors' integrity, competence and independence on the effectiveness of internal audit practices, particularly at a sub-national level in the North-central zone of Nigeria.

Relevant stakeholders would find this study's outcomes useful as input to various policy frameworks in the areas of public sector financial management control. For instance, government can see the need to restructure the incentive system for internal auditors of all MDAs as a strategy to minimize fund mismanagement from time to time.

2 Literature Review

2.1 Conceptual Review and Clarification

2.1.1 Ethical Factors

There is need for every accountant or auditor to deliver their duties in line with the professional ethics laid down by regulatory and professional bodies. Ethics is a set of moral or value principles or rules of conduct established by professional organisations to protect the interests of members and society as service users (Arens, et al. 2011; Kertarajasa, Marwa & Wahyudi, 2019). The obligation of an auditor is to uphold their professional ethical standards for the organization they work for, the community and themselves. However, the difficult problem faced by internal audit unit to improve audit quality has to do with attitude and behavior of auditors in carrying out audits, so that the supervision carried out is reasonable, effective and efficient. The Institute of Internal Auditor Code of Ethics (IIA, 2017) required that for an internal audit to be effective, the internal auditor is expected to apply and uphold the principles of integrity, objectivity and independence, confidentiality, competence and professional due care. This study focused on integrity, competence and independence of internal auditor and their effects on internal audit effectiveness.

2.1.2 Internal Auditor's Integrity

One of the major ethical requirements of auditor, whether internal or external, is to possess high integrity when discharging their duties. Integrity is an element of character that underlies the emergence of professional recognition (Kertarajasa, et al. 2019). Integrity is a quality that underlies public trust and is a benchmark for members in examining all decisions taken. Integrity requires a member to, among other things, be honest and forthright without sacrificing the secrets of the recipient of services; services and public trust should not be defeated by personal gain (Mulyadi, 2014). Integrity can accept unintentional errors and disagreements honestly, but cannot accept fraud or abolition of principles. With the foregoing conceptual meaning of integrity, measurement of integrity reflects the following concept and sub-constructs: honesty, fairness, respect for others, work ethics; trustworthiness, credibility and responsibility.

2.1.3 Internal Auditor's competence

Arens, Elder, and Beasley (2012) defined competence as the knowledge and skills necessary to accomplish tasks that define an individual's job. Furthermore, competence refers to the ability of an individual to perform a job or task properly with the application of a set of defined knowledge, skills, and behaviour. Competence means having the intelligence, education and training to be able to add value to the organisation through performance (Chambers, 2014).

Qualification and experience are metrics to gauge competence of an employee to a certain extent. The internal audit competence comes from long and intensive preparation, including instruction in the underlying knowledge, skills and methods, as well as scholarly principles, and the commitment to continued study (IIA, 2013a, 2013b). Gramling and Myers (2009) indicated that certification of an employee is perceived to be a signal of the significant level of competence and important for advancement in an organisation. The attributes that organisations should look for when hiring internal auditors pertain to education, experience and professional certification, in addition to computer and communication skills (Harrington, 2004). Seol and Sarkis (2005) suggested that the fundamental skills internal auditors should possess include technical, analytical, appreciative, interpersonal and organisational skills. Thus, all the parameters mentioned in the preceding review are the basis for measuring competence of an internal auditor in this study.

2.1.4 Internal Auditor's Independence

Independence is the freedom from conditions that threaten the ability of the individual to carry out his or her function (Dejnaronk, Little, Mujtaba & McClelland, 2016). An agent or employee charged with the

responsibility of watching other agents must be independent in all forms (e.g. appointment, remuneration and reporting) in order to give results devoid of bias (Mnofu, 2020). Independence is a quality that can be possessed by individuals and is an essential component of professionalism and professional behaviour. It refers to the avoidance of being unduly influenced by a vested interest and to being free from any constraints that would prevent a correct course of action being taken. It is an ability to 'stand apart' from inappropriate influences and to be free of managerial capture, to be able to make the correct and uncontaminated decision on a given issue (ACCA, 2011). For this study, the ACCA (2011) and (Dejnaronk *et al.*,2016) description of independence are the basis of measurement of independence.

2.1.1 Internal Audit Effectiveness

The concept of internal audit (IA) effectiveness can be clearly operationalised by firstly seeing how internal audit is being conceptualized in the literatures. Accordingly, Institute of Internal Audit (IIA, 2010) was of the view that IA is a control tool for governance and operation of an organization. Although, common understanding in literature (Allegrini, D'Onza, Paape, Melville, &Sarens, 2006; Dellai, Ali, & Omri, 2016) on the function of IA is that of assurance, financial control and assets safeguard, the need to redefine IA function to entail value addition has given bases for IIA in 2017 to define internal audit as "*an independent, objective assurance and consulting activity designed to add value and improve an organisation's operations. It helps an organisation accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes*". Thus, internal audit function, based on this definition, is basically to add value to all aspects of an organisation activity particularly in the areas of risk management, control and governance process. On the concept of effectiveness, Chambers (1993) amplified the common understanding of effectiveness as doing the right thing. The right thing based on primary function of internal audit is to achieve the objective of value addition to all aspects of an organisation. In line with this argument, Arena and Azzone (2009) described effectiveness as an achievement of results that are in line with target objective. In view of the conceptual clarification of term "internal audit" and "effectiveness", internal audit can simply be described as achievement of internal audit objectives in a right way, and this must be reflected by seen value added to organisation activity in the area of risk management, control and governance.

Measurement of internal audit effectiveness has been largely diverse. Turentken and Ozkan (2019) affirmed the lack of a convergence on commonly accepted indicator of internal audit effectiveness, but gave two distinct categories of indicators of internal audit effectiveness as objective and subjective measures. Based on extant literature reviewed by these authors, the subjective indicators (Perceived audit effectiveness) are substantially used in empirical studies. In support of its dominants, the measure is argued to provide more insightful information than objective measures. The objective measures or indicators only provide information on efforts not on outcome. On the premise of the preceding argument, internal audit effectiveness is measured using perceived effectiveness indicators. Perceived effectiveness in term of value addition in the areas of risk management, governance process and improved organization performance constitute elements of the construct

2.2 Theoretical Framework

The study was guided by the assumptions of deontology ethic theory. Deontology ethic theory was first propounded by the German philosopher, Immanuel Kant in 1785 but was first used by Broad in 1930. It is one of the normative ethical theories which assert that the morality of an action should be based on whether that action itself is right or wrong under a series of rules, rather than based on the consequence of the action (Kant,

1785; Bruce, 2005). The deontology ethical theory suggests that actions are good or bad according to a system involving a clear set of rules and standards. Actions that obey the rules are ethical while the actions that do not are not ethical. It is sometimes called duty-obligation or rule-based ethics. Deontology ethic theory posits that action of an individual is based on a set of rules or standards guiding his/her conduct rather than his/her way of doing things. This implies that an internal auditor that discharges his duties in line with the required Code of Ethics is expected to be effective. An internal auditor that works with high level of integrity would not be bias and would not allow his interest to supersede the interest of others, hence would always work towards achieving organisational goal through reduction in any form of irregularities. More so, an auditor with the required qualification and experience would be able to discharge his duty with high level of confidence by providing relevant recommendation that can ensure effective internal control systems and risk management.

This theory is relevant to this study as there are rules guiding the conduct of an auditor (whether internal or external) while discharging his services. These rules are set out in the IFAC Code of Ethics for global consumption and ICAN Code of Ethics for professional accountants in Nigeria. These include integrity, objectivity, professional competence and due care, confidentiality and professional behaviour. Deontology ethic theory thus states that the internal auditor should act in a way that always treat humanity whether his desires, relations or any other individual never as a means but always at the same time as an end as well as acting only according to maxim.

2.3 Empirical Review and Hypothesis Development

Literature is of the view that organisation experiences value addition through an effective internal audit represented by internal auditors through their activities of ensuring adherence to established internal controls, and other laws and regulations (Yee, Sujan, James & Leung, 2008).This brings to the fore the need to establish factors that may influence the effectiveness of internal audit. Turetken and Ozkan (2019) in their extensive literature reviewed, identified twenty factors that have been empirically studied to have influence on internal audit effectiveness. These factors range from: competence (Al-Twaijry & Brierley, 2003; Mihret & Yismaw, 2007; Halimah, Othman & Jusoff, 2012 & Dellai, Ali & Omri, 2016); size of internal audit department (Arena & Azzone, 2009; Halimah, Othman & Jusoff, 2017; Bednarek, 2018) organisation setting (Mihret & Yismaw, 2007; Lenz & Hahn, 2015; Lenz, Sarens & Hoos, 2017) scope limitation (Al-Twaijry & Brierley, 2003; Erasmus & Coetzee, 2018); compliance with applicable standard (Feizizadeh, 2012; & Dejnaronk, Little, Mujtaba & McClelland, 2015), management training ground (Cohen & Sayag, 2010), auditee attributes (Mihret and Yismaw,2007) internal auditor independence (Al-Twaijry & Brierley, 2003), objectivity (Erasmus & Coetzee, 2018; Dellai, Ali & Omri, 2016), chief audit executive leadership style (Dal Mas & Barac, 2018) cooperation with audit committee (Aishbiel, 2017; Bednarek, 2018), information and communication (Dejnaronk, Little, Mujtaba and McClelland, 2015, interaction between internal and external audit (Alzeban & Gwilliam, 2014) to cultural dimension (Alzeban, 2015).

2.3.1 *Internal auditor's Integrity and Internal audit effectiveness*

Foundation of trust is usually a function of integrity display by internal auditors in the discharge of their functions (IIA, 2002). Integrity can be said to be reflected in the way and manner an internal auditor discharges his/her duty with high degree of impartiality and sense of responsibility as well as adherence to subsisting rules and regulation. Auditor with high level of integrity easily wins the trust of auditees in the form of reliance on whatever judgement that may emanate from assessments made on the auditee actions and jobs. In effect, this may enhance internal audit performance

(or effectiveness). Empirical findings in support of this postulate are not many in extensive literature search. Few studies such as Schneide (2003), Stewart and Subramanian (2010), Endaya and Hanetah (2013) reported positive impacts of objectivity and integrity (being elements of code of ethic) on internal audit effectiveness. Similarly, Rahahle (2017) examined how the extent of compliance with codes of ethic (integrity, objectivity, confidentiality and competence) influence internal audit effectiveness in Jordanian shareholding companies. His findings reflect high compliance level with all ethical elements and also impact on internal audit effectiveness. Studies of Obeid and Abdelnur (2018), and Sari and Sirajuddin (2019) reported how objectivity and integrity were responsible for the removal of an internal audit director in Sudanese government unit; and an interactive impact of integrity and management support on internal audit effectiveness, respectively.

With these few empirical evidences, this study hypothesizes in null form as follows:

H1. There is no positive association between internal auditors' integrity and Internal audit effectiveness.

2.3.2 Internal auditor's competence and Internal audit effectiveness

Substantial number of studies reported positive impact of the identified factors on internal audit effectiveness. For instance, going by the assertion of IIA (2017) that staff members' competence is a critical factor for internal audit effectiveness, much of the empirical studies stated above as well as those reviewed by this study (e.g. Musah, Gapketor and Anokye, 2018; Musah, Gapketor and Anokye, 2018; Jachi and Yona, 2019; Setyaningrum and Kuntadi, 2019, Mensah, Ngwenya, and Pelser, 2020; Abrar ,2020) reported positive influence of competence on internal audit effectiveness. Although earlier studies identified by Turetken and Ozkan (2019) were carried out in developed countries, those reviews in this study are surveys carried out in Ghana, Kenya, Zimbabwe, Ethopia and Indonesia with the common conclusion that competence in a dimension of experience of staff members, professional qualification, training hours and educational level are means by which internal auditor competence contributes to internal audit effectiveness. Thus, any organisation that pays more emphasis on internal auditor competence through training, experience and professional qualification may likely experience effectiveness of the internal audit department. This analysis leads to another null hypothesis that:

H2. There is no positive association between staff member's competence and internal audit effectiveness.

2.3.3 *Internal auditor's Independence and Internal audit effectiveness*

Alzeban and Gwilliam (2014) are of the view that lack of independence is an obstacle to satisfactory internal audit performance. Thus, independence is considered as a key factor that drive internal audit effectiveness. Study of Tahajuddin and Kertali (2018) established that internal audit independence was positively affecting internal audit effectiveness in the Malaysian context. Al-Twaijry and Brierley (2003) reveal that reference document that specify internal audit department role, its rights of access to individuals, records and assets as well as setting out the scope of internal auditing are germane to internal audit independence. Given this observation, studies (e.g Kaboi, Kiragu and Riro 2018; Solomon 2019; Alqudah, Amran and Hassan 2019; Setyaningrum and Kuntadi, 2019; Arles, Rita and Andreas 2020; Abrar, 2020) that have operationalized internal audit in this dimension reveal the positive effect of internal audit independence on its effectiveness.

Solomon (2019) found that there existed significant positive relationships between independence and internal audit effectiveness in Ethiopian private commercial banks. Mohd Yusof, Ismail and Chye (2019) found that independence of the internal audit unit has a positive and significant influence on the overall internal audit capability level. Lack of independence results in lack of quality

internal audit unit which thus gives an impact on the capability level. Mensah, Ngwenya, and Pelser (2020) established that independence of the internal auditing staff has impact on the effectiveness of internal auditing of private universities in Ghana. Arles, Rita and Andreas' (2020) study revealed the existence of a positive influence of independence on internal audit effectiveness in banks Pembangunan Daerah (BPD) in Sumatera, Indonesia. Abrar's (2020) findings indicated that internal audit effectiveness in Ethiopian shipping and logistics service enterprises is significantly and positively influenced by the independence of internal auditors.

Based on this discussion, it is expected that high a degree of internal auditor independence will lead to internal audit effectiveness, resulting in a null hypothesis stated:

H3. There is no positive association between internal audit independence and internal audit effectiveness.

3. Research Method

3.1 Sample selection and data collection

This study adopted a cross-sectional survey research design to collect data from Chief Executives, Directors, Heads of Units of Department and Agencies in Kwara State, Nigeria. The recent press release by the Chief press secretary to the Executive Governor of Kwara State on the payment of salary to "ghost workers" cutting across MDAs informed the choice of this state as unit of analysis. Questionnaires were administered to obtain the data. Four hundred and sixty-eight (468) respondents comprising of management staff and senior audit staff formed the sampling frame from which two hundred and sixteen (216) respondent was drawn using Yamane (1967) statistical sampling method of determining sample size. Based on Dillman's (2000) recommendation, participants were informed that their responses were anonymous to encourage completion of the questionnaire. This study recorded 98%, response rate that translated to 194 usable questionnaires. Thus, the problem of non-response bias is highly minimized.

The questionnaire was separated into two (2) parts, section A and B. Section A was used to collect demographic information relating to gender, age, academic qualification, working experience and professional qualification. The descriptive statistics on respondents' demographic information is presented in table1. Section B elicit information on dependent and independent variables.

3.2. Variable Measurement

Extensive literature search provide basis for the measurement of variable through different sources identified in the literature. Specifically, items of measurement questions were adapted from various studies with validated instruments. However, the instrument was still subjected to expert evaluation to improve wording of some items and layout. The study went further to assess the reliability and validity of the scales in the Partial least square (PLS) measurement model, while other preliminary tests ranging from normality to multicollinearity test and descriptive statistics of all items in scale are presented in the result section.

3.2.1 Internal audit effectiveness

Items used to measure internal audit effectiveness were collected from various validated instruments used in previous studies. Accordingly, the items operationalised effectiveness in context of value added to the organisation through internal auditor activities as perceived by management, fulfilment degree of internal audit plan and recommendation implementation rate. For perceived added value, four items were drawn from previous studies (Aizeban and Gwilliam,2014; Muazu and Saidin, 2014; D'Onza, Selim, Melville & Allegrini; Dellai, Ali & Omri, 2016). While one item was used for fulfilment degree of audit plan, one item for recommendation implementation rate (Erasmus &Coetzee,2018).All the items were measured on a 5-point Likert scale.

3.2.2 Integrity

The principles of ethics to guide auditor in the maintenance of integrity as stated in IIA (2013) code of ethics were operationalised by 7 items as used in previous studies (Grobler & Steyn,2016; Ramdani, 2018) on a 5-point Likert scale.

3.2.2 Competence

Internal auditor competence was also measured in line with principles set out in IIA (2013) to guide auditor in the discharge of duties with high level of skill and competence. Accordingly, six items relating to experience, professional qualification, percentage of certified members, training hours and educational level, as used in previous studies (Mihret & Yismaw, 2007; Dellai *et al*., 2016; Tackie, Marfoyiadom & Achina, 2016).

3.3.3 Indepedence

The degree to which auditor are free from conditions that constitute threat in discharge of duties in an unbiased manner was operationalized through 5 items relating to safeguarding tools in internal audit department, right to access individuals, records and asset, and reporting system
(Al-Twaijry & Brierley, 2003).

3.3 Model Specification

In an attempt to empirically test the effect of ethical factors on internal audit effectiveness among MDAs in Kwara State, North-central, Nigeria, the study modified Abdullah and Mustafa's (2020) model to reflect the study objective. The model was originally stated as:

$IAE = b_0 + b_1IND_i + b_2MSUP_i + b3COM_i + e_i$

Where: IAE = indicates internal audit effectiveness; IND = independence of the internal audit department; MSUP = management support for internal audit; and COM= competence of the Internal Audit.

This was modified through the removal of management support and introduction of integrity to actually reflect ethical factors as independent variables, since management support is not part of IIA ethical code for members to abide by. Thus, the modified model for this study is written in basic equation form and econometric forms as follows:

$IAE_i = f$ (Ethical factors)

$IAE_i = \beta_0 + \beta_1INT_i + \beta_2IAC_i + \beta_3IAI_i + \varepsilon_i$

Where:

IAE	=	Internal Audit Effectiveness;
INT	=	Internal auditor's integrity;
IAC	=	Internal Auditor's Competence
IAI	=	Internal Auditor's Independence
B_0	=	Constant Coefficient
β_1- β_3	=	Parameters of the estimate
ε_i	=	Error term (5% significance level).

Parameters in this model was estimated using Partial Least Square (PLS)estimation techniques. The study employed the technique because of its strength in measuring variables of interest at both measurement and structural levels.

4 RESULTS

4.1 Diagnostic test of Variables

4.1.2 Normality Test

Although problem of non-normally distributed data is not an issue in PLS regression analysis, the study conducted Skewness and Kurtosis test to confirm the normality of the data collected.

Table1 Normality Distribution Result

Constructs	N	Mean	SD	Skewness	Kurtosis
Internal auditor's integrity	194	4.124	1.018	-1.325	1.423
Internal auditor's Competence	194	4.330	0.714	-1.278	2.471
Internal auditor's independence	194	3.361	1.186	-0.284	-1.063
Internal Audit Effectiveness (IAE)	194	3.938	1.024	-0.929	-1.019

Source: Research Survey, (2021).

The report in table 1indicates that data on all variables were all normally distributed as skewness and kurtosis statistics were with the range of ±3(Verbeek, 2004).

4.1.3 Multicollinearity Test

The report of the tolerance level among the independent variables revealed no problem of multi- collinearity since Variance Inflation Factor (VIF) for all independent variables were less ten according to the rule of test.

Table 2: Multicollinearity Result

Variables	VIF	Tolerance
Internal auditor's integrity	1.143	0.875
Internal auditor's Competence	1.169	0.855
Internal auditor's independence	1.469	0.681

Source: Field Survey, 2020.

4.2 Descriptive Statistics

4.2.1**Descriptive Statistics for Variables**

Table 3 reports the descriptive statistics with competence having highest mean score of 4.20

Table 3Descriptive Statistics for Variables

S/N	Variables	Mean	Standard Deviation	Minimum values	Maximum values
1	Internal Audit Effectiveness	3.7959	1.0837	1.00	5.00
2	Independence	3.7755	1.1355	1.00	5.00
3	Integrity	4.0816	0.9261	1.00	5.00
4	Competence	4.1939	0.9596	1.00	5.00

Source: Author's Computation (2021)

while other variables' mean scores were in the moderate region of 4.00 indicating responses to items in the scale were far from minimum point.

4.2.2 Descriptive Statistics for Respondents' Profile

In table 4**,** report on demographic information shows that one hundred and ten respondents were male and eighty-four were female, while the modal age was in the range of 36-40 years.

Table 4. Summary of the Respondents' Demographics

No	Item	Description	Frequency	Percent
1	Gender	Male	110	56.7
		Female	84	43.3
		Total	**194**	**100**
2	Age	Below 30 Years	0	0
		30-35 years	9	4.64
		36-40 Years	91	46.91
		41-45 Years	46	23.71
		46 years and above	48	24.74
		Total	**194**	**100**
3	Educational Qualification	HND/B.Sc.	116	59.79
		M.Sc./MBA	56	28.87
		Others	22	11.34
		Total	**194**	**100**
4	Work Experience	5-10 years	3	1.5
		11-15 years	45	23.2
		16-20 years	102	52.5
		26 years and above	46	23.7
		Total	**194**	**100**
5	Professional qualification	ICAN	97	50.0
		ACCA	8	4.12
		ANAN	89	45.88
		Others	0	0

Source: Author's Computation, 202

For the respondents' level of education, one hundred and sixteen (116) were degree holders without additional qualification while the remaining seventy-eight (78) had other qualification with first degree or HND, indicating little or no interpretation bias. In addition, no respondent had less than 3 years' experience; all the respondents, both management and internal audit staff, were with one professional qualification or the other.

4.3 Measurement model

The properties of the variables were examined through the measurement model of Partial Least Square (PLS) estimation technique. As shown in Table 5, all items load are above 0.5 on their respective constructs, while the reliability of each variable was further confirmed by measure of composite reliability.

Table 5 Factor loadings for PLS measurement model,Reliabilty and Average Variance extraction statistics

Construct	Items	Loadings	CR	AVE
IA competence	IAC0	0.952	0.748	0.566
	IAC3	0.501		
	IAC5	0.799		
	IAC6	0.263		
IA effectiveness	IAE0	0.904	0.877	0.642
	IAE1	0.771		
	IA4	0.759		
	IAE5	0.761		
IA remuneration	IAR0	0.964	0.867	0.577
	IAR1	0.818		
	IAR3	0.749		
	IAR4	0.684		
	IAR5	0.508		
IA integrity	INT0	0.834	0.832	0.556
	INT2	0.608		
	INT4	0.742		
	INT5	0.780		
Information Technology	ITP0	**0.939**	0.874	0.585
	ITP2	**0.649**		
	ITP3	**0.706**		
	ITP5	**0.718**		
	ITP6	**0.780**		

Source: Research Survey (2021)

Each variable's composite reliability (CR) score is above 0.70, demonstrating acceptable reliability. The average variance extracted, as also shown in table for each variable is above 0.50, which implies adequate convergent validity. In summary all these statistics indicate that each construct displays satisfactory reliability and validity.

4.4 Tests of Hypothesis

The study examined the relationship between variables as hypothesised earlier by using structural model as estimation technique. In PLS, the objective is to maximise the variance explained it rather fits. Thus, prediction-oriented measure suffices (Hall, 2011). The standardized path coefficient produce in PLS is interpreted in a way the regression estimated coefficient are interpreted. For the evaluation statistical significance of each path coefficient, bootstrapping of 1000 samples with replacement were carried out since no distribution assumption found in PLS

Table 6 Results of the Regression Analysis

Variables	Path coefficient	T-statistics	p-value	R^2
Integrity →Internal audit effectiveness	0.064	3.981	0.000	0.266
Competence →Internal audit effectiveness	0.032	6.298	0.000	0.136
Independence →Internal audit effectiveness	0.059	5.108	0.000	0.161

Source: Author's Computation, 2021

For hypothesis one: **H1**: *There is no positive association between internal audit integrity and Internal audit effectiveness.*

The results as reported in Table 6 shows a positive association between internal auditor's integrity and internal audit effectiveness (β=0.064, t=3.981, P less than 0.05). This implies rejection of null hypothesis. In essence, the result confirms positive effect of internal auditors' integrity on internal audit effectiveness. Similarly, the reported results confirm the significant positive effects of internal auditors' competence (β=0.032, t=6.298, P less than 0.05) and internal auditors' independence (β=0.032, t=6.298, P less than 0.05) on internal audit effectiveness leading to rejection of the null hypothesis two and three respectively as restated.

H2. *There is no positive association between staff member's competence and internal audit effectiveness.*
H3*. There is no positive association between internal audit independence and internal audit effectiveness.*

Since the objective of PLS is to maximize variance explained rather the fitness, thus prediction-oriented method such as $\mathbf{R^2}$ as presented in Table 6 was used to evaluate the model. Accordingly, the $\mathbf{R^2}$ values of 0.266; 0.131 and 0.161 for integrity, competence and internal auditor's independence respectively indicates that the model has a moderate predictive relevance.

5. Discussion, Conclusion and Recommendations

This study examined the effects of internal auditors' integrity, independence and competence on internal audit effectiveness. Findings reveal that all the independent variables might help public sector organisations realised internal audit effectiveness in the form of bringing value to the organization by ensuring adherence to the established internal procedures and control as well as improving existing process.

In specific terms, finding shows the high level of integrity maintained by internal auditor through the way and manner duties are being handled without partiality. Consistent demonstration of uncompromising attitude when issue of ethic arises as well as adherence to professional code of ethics may motivate internal organization members to believe in the judgment and advice internal auditors render from time to time. This would not only lead to reduction in perpetration of irregularities and loss of government resources but enhance other internal audit services. This evidence confirms the postulate of deontological view that an internal auditor that works with high level of integrity would not be bias and would not allow his interest to supersede the interest of others, hence would always work towards achieving organisation goal. In addition, Previous empirical evidence of Stewart and Subramanian (2010), Endaya and Hanetah (2013), Rahahle (2017) and Kahyaoglu *et al*, (2019) provide support to the finding reported in this study.

Findings related to internal auditors' independence and internal audit effectiveness also show positive relationships. In essence, an organization that has an independent internal auditor who works without management's or any stakeholder's influence will be able to discharge his/her duties effectively. In as much as independence of internal audit is to a certain extent maintained, access to all documents and other information that may serve as input for audit process may not constitute obstacle for auditor in the discharge of duties and thus results to effectiveness. The reported finding also confirm the prediction of deontology ethic theory and previous evidence of Kaboi, et al. (2018), Tahajuddin *et al*. (2018), Solomon (2019), Mohd Yusof *et al.* (2019), Mensah *et al.,* (2020), Arles *et al.* (2020) and Abrar (2020).

The significant positive relationship observed between internal auditors' competence and internal audit effectiveness may be attributed to the extent at which internal auditor deploy professional skills in carrying out duties. These skills are often the products of level of professional and academic

knowledge possess by the auditors. Aside, the cumulative experience gathered over time on the job is a critical factor for auditor to effectively discharge duties professionally. Similarly, reported evidence align with studies of Arena (2013), Alzeban and Gwilliam (2014), Faiz, *et al.* (2016), Goerge *et al.* (2017), Drogalas, *et al.* (2017), Kabuye, *et al.* (2017), Asiedu and Deffor (2017) and Ziniye, *et al.* (2018) where they found that internal audit with required competency would lead to internal audit effectiveness.

In view of the foregoing, this study is of the view that Internal audit effectiveness is a function of ethical practices in the areas of integrity, independence and competence of internal auditors of agencies and departments in Kwara State, a sub-national in north-central Nigeria. Therefore, the government is advised to strengthen its mechanism that will encourage members of internal audit unit to be honest in the pursuit of their responsibilities. Government should also see the need to employ only professionally qualified individual to the post of internal auditor, as well as embarking on regular training to enhance internal auditors' skills. Finally, a reporting structure that will not compromise the independence of internal auditor should be put in place and enforced.

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