Sarcouncil Journal of Entrepreneurship and Business Management

ISSN(Online): 2945-3720

Volume- 01| Issue- 01| 2022





Research Article

Received: 05-03-2022 | **Accepted:** 17-03-2022 | **Published:** 23-03-2022

Moderating Effect of Information and Communication Technology on Internal Audit Practices and Public Expenditure Management of Government Organizations in Nigeria

Isoboye Jacob Damieibi (PhD)

Captain Elechi Amadi Polytechnic, Rumuola, Port Harcourt, Rivers State, Nigeria.

Abstract: The study examined the moderating effect of information and communication technology on internal audit practices and public expenditure management of government organizations in Nigeria. The population of the study consisted of 350 staff in the five surveyed government organizations in Nigeria. The study used a questionnaire to elicit information from the respondents. The study applied descriptive and inferential statistical tools to analyze the data and test the hypotheses with the help of SPSS 22.0. The study found that the effect-based information and communication technology, positively relate to the degree of knowledge sharing and learning intensity of the audit team in relation to risk assessment, assets safeguard and auditor independence. Information and communication technology positively influence internal audit practice towards public expenditure management and has prudential effect on aggregate fiscal discipline, allocative efficiency and operational efficiency of public sector organisations. The study revealed that information and communication technology are used in internal auditing and this affects public expenditure management. It is suggested that information and communication technology be used increasingly so that the quality of internal auditing can be improved and accordingly, systematic planning and performing internal auditing operations in order to achieve efficient public expenditure management in public organisations. Furthermore, applying information and communication technology by internal auditing units of companies helps to engender efficiency. The results of the study have given a clear indication that information and communication technology have significant effect on internal audit practices and public expenditure management of government organizations. Conclusively, it is evident that as: Government organizations engage in risk assessment they achieve their public expenditure management positively and significantly. This simply means that risk assessment as an instrument of internal audit practices influences public expenditure management to elicit good public expenditure management of government organisations. The study recommended that: The public sector administrators should use risk assessment to their advantage by encouraging government organisations' staff with proficiency in information and communication technology application. Government organizations' staff should update their knowledge with respect to risk assessment and allocative efficiency through the opportunities provided by information and communication technology solutions so as to be able to benefit from the strategic values of effective and efficient public expenditure management.

Keywords: Information and Communication, Technology Internal Audit Practices, Public Expenditure Management, Risk Assessment, Asset Safeguard, Auditor Independence, Government Organizations.

INTRODUCTION

Organizations' internal auditors play the role of undertaking an independent examinations and giving assurance on various operations of institutions aimed at enhancing organizational performance every day (Institute of Internal Auditors (IIA, 2010). This enables an organization to meet its operational objectives through well thought-out and dedicated approaches to evaluate and improve on how best to manage risk, institute effective controls and enhance governance. The broad view of internal audit places it more centrally as an important element of public expenditure management that also encompasses management controls and information communication processes (Adedokun, 2014).

The basic functions of internal auditors are directed towards evaluating whether operations were carried out in accordance with the set rules and regulations, set governance structures as well as systems that manage information in a bid to promote preciseness in undertaking transactions (Adedokun, 2014). The other function of internal auditors is to offer direction on the best measures to avert occurrence of chances or deficits that may

arise, as well as providing certainty to institutions audit committee's and top management in ensuring objectives are well set ((Muhibat, 2016).

Public institutions are required to support the internal auditor to learn effectively on all if not most issues faced by public institutions by understanding the daily risks and constraints in public organizations systems and formulating strategies that will enable the internal auditors to work as a team to identify and address all risks (Abba & Kakanda, 2017). A good internal auditor is one who undertakes his role efficiently and effectively and enables the achievement of good governance systems in any given public institution. The internal auditors' functions are affected by credibility issues hindering their capability to perform their duties in promoting transparency, accountability and good governance (Behrend & Eulerich 2019).

This study is necessitated by the fact that over the years, the public sector organizations have been receiving large sums of money from governments for economic and social development; yet the

result on ground has been extremely disappointing. Public expenditure has failed to translate into politically desired and expected goals. Hence, the need to examine the moderating effect of information and communication technology on internal audit practices and public expenditure management of government organizations in Nigeria. That has given the to raise this research question. To what extent do information and communication technology influence internal audit practices and public expenditure management of government organizations in Nigeria?

Literature Review Internal Audit Practices

The objectives of internal audit are unarguably broad but governments differ 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. According to Unegbu and Obi, (2012), internal audit is part of the internal control system put in place by management of an organization to ensure adherence to stipulated work procedure and as an aid to management. They believe that internal audit measures, analyses and evaluates the efficiency and effectiveness of other controls established by management in order to ensure smooth administration, control cost minimization, capacity utilization and maximum benefit derivation. This implies that internal audit is an integral part of a complex system designed by the management of any organization to ensure orderly conduct of its business and prevent abuse of assets.

Deepak, (2010) sees internal audit as an independent and objective assurance consulting function designed to help organization to achieve its objectives. He identifies the objectives to include: Effectiveness and efficiency of operations (programmes projects), reliability of financial and operational information, safeguarding of assets, compliance with rules and regulations and prevention and detection of fraud.

Adeniji, (2011) states that internal audit is part of the internal control system put in place by management of an organization.

Rotich, (2015) argues that there should be effective internal audit procedures to ensure reliability of financial statements, operational reports, safeguarding corporate assets and effective organizational controls. Ogundiya, (2010)

maintains that higher education not only enables a state to maintain a competitive advantage but it also stimulates scientific research that results in modernization and social transformation. On this basis, Ogundiya, (2010) further proposes that governments should financially support their institutions of higher education. Internal auditors are an important part of the internal control environment of entities, representing the highest level of control that measure and evaluate the effectiveness of other controls. Additionally, to the financial controls, the internal auditor's scope includes the evaluation and testing of control effectiveness, and other assurance and consulting services to the management (Alaswad & Stanišić, 2016).

Risk Assessment

Broadly speaking, a risk assessment is the combined effort of: Identifying and analyzing potential events that may negatively impact individuals, assets, and/or the environment; and making judgments on the tolerability of the risk on the basis of a risk analysis while considering influencing factors (Shields, 2015). Vijayakumar and Nagaraja, (2012) see risk assessment as a term used to describe the overall process or method where you: Identify hazards and risk factors that the potential to cause harm (hazard identification). Analyze and evaluate the risk associated with that hazard (risk analysis, and risk evaluation).

Risks have got a serious bearing on public expenditure management, if not contained; it will affect the intended outcome (Monday & Aladeraji, 2015). Risk assessment has two components; first, risk identification that require a firm to conduct systematic internal evaluation, industry analysis using Michael Porter's approach. Internal risks such as strategic risk, operational risk, governance and financial risks; these are easy to mitigate since the management has a hand in their control as opposed to external risks which are beyond the control of the management. The external risks which are beyond management control include events like political risk, economic risk, legislative risk, compliance and technological risk.

Once risks are identified and evaluated, the management can transfer the risk by means of insurance, subcontracting or outsourcing, reduce the risk through raising staff awareness, putting security measures in place, diversification, strengthening of internal controls, good staff recruitment and training; conducting research and

development and developing quality control measures over production of goods and services, accept the risk by doing nothing, hope for the best, and lastly to avoid the risk by not allowing the organization to engage in high-risk ventures (Modar & Shatha, 2015).

Asset Safeguard

Safeguarding of assets is defined as those policies and procedures that provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposal of the company's assets that could have a material consequence on the financial statements (Chenhall & Moers, 2015). Adeniji, (2011) argued that amongst the not so fascinating but significant attributes of an organization's actions are internal which encompasses controls, safeguarding corporate assets. Accountants are required to carry out sound assessments to safeguard assets and rationally make sure that management's goals are realized in the direction of effective operations, dependable financial reporting and legal and regulatory compliance.

Erlina and Muda, (2018) stated that, developing policy as to who has access and control over reliable aspects of company assets is the first step in appreciating at what point a risk of loss may occur. In recent time, business needs to execute controls above traditional physical safeguarding in order to improve business performance. There is dearth of scholarly contributions on the subject area or variable under examination, assets safeguard. The implications generated from this endeavour will aid the entrenchment of accountability and viable culture of safeguarding assets will be institutionalized.

Güneş and Atılgan, (2016) had a different view, on the issue of assets safeguard, that irrespective of the undue pressure on the internal audit staff, the internal auditor remains accountable to management and by extension the shareholders or owners of the business organization.

Auditor Independence

Auditor independence has been defined as the ability to resist client pressure (Alau & Abdulkadir, 2009). Similarly, Ahmad, Othman and Jusoff, (2009) define auditor independence as having: "... freedom from situations and relationships which make it probable that a reasonable and informed third party would conclude that objectivity either is impaired or could be impaired". Independence is traditionally

regarded as being one of the fundamental principles underlying the reliability of an auditor's report. The concept of autonomy refers to the dimension of conflicts of interest that require the internal auditor to be independent on the activities of his review, and to be away from the influence of the party that performs the audit of its operations, and that means a sense of practitioners that they are able to make decisions without pressure or docility to those who are making an impact on them The objective concept relates to the quality of the estimates and decisions and judgments and quality out of the state of mind experienced by the internal auditor, in the sense that the objective is a product of independence, and that the absence of independency element for internal auditor loses the ability to add any value to the institution, that mean the audit operation lose the add value, it is that the concept of independency is absolute value and difficult to apply, the internal auditor is closely linked to the organization is contractually as an employee within the organization (Arena & Azzone, 2009).

Public Expenditure Management through Budget

Instilling public expenditure management is not as simple as it sounds. There is a fundamental problem that makes it difficult to achieve. That problem is what economists refer to as the "tragedy of the commons" or the common pool problem. Imagine a small fishing village with 10 families. Every day, the head of each family goes out to catch fish in the river. As far as he is concerned, the fish is free. The only costs to him are the depreciation on his boat and fishing equipment, fuel, food for the day, and perhaps some bait for the fish. Now, people have a natural tendency to get as much as they can of anything that is of value that is given for free. Hence, a fisherman will have a tendency to catch as much fish as possible until he tires out. All ten of the fishermen will thus tend to "over-fish (De Baerdemaeker & Bruggeman, 2015).

The annual budget is somewhat like the common pool of fish in the river. Each claimant to the budget considers the budget as a "free" resource since his or her demand is such a small proportion of the total budget and therefore will not impose much of a loss to the total. But, of course, if every claimant behaved this way, the aggregate of their demands will far exceed what is available (Erlina & Muda, 2018).

In fact, according to Bahrawe, Haron and Hasan, (2016), the success or failure of budgeting depends on how well management considers its behavioural implication. The major benefits of budgeting are: It provides defined expectations which show the best framework as a guide for appraising future performance, it formalizes managerial responsiveness for planning and compelling the early projection ahead, aids managers toward synchronizing the objectives of the organization with the objectives of its various units.

Information and Communication Technology

Computers and the internet are continuing to transform the economy and society, thus making the role of information and communication technology (ICT) in fostering development becomes more broadly acknowledged. According to Scott, (2016) information communication technology (ICT) is a techno-quick-fix for solving development problems that have spanned generations. In the opinion of Alzeban, (2015) the internet is the largest, most powerful computer network in the world. It encompasses 1.3 million computers with internet addresses that are used by up to 30 million people in more than fifty countries.

According to Alzeban, (2015) information communication technology (ICT) is basically information-handling tools which are varied sets of goods, applications and services that are used to produce, store, process, distribute and exchange information. Information communication technology (ICT) includes radio, television and telephone and the new ICT of computers, satellite and wireless technology as well as the internet. Information communication technology (ICT) can play a catalytic role as an enabler to development. Recent development in technologies, reduction in prices, greater availability of networks and a more user-friendly approach to technologies strengthening the role that ICT can play in support of development (Kruis. et al., 2016).

Muhibat, (2016) posits that information and communication technology (ICT) is becoming a powerful tool for mobilizing civil society and the underutilized human resource. Alzeban, (2015) stresses that information and communication technology (ICT) is an all-purpose technology. Information communication technology (ICT), particularly the internet, is a networking infrastructure that can connect, empower and coordinate as well as deliver all kinds of services. Muhibat, (2016) maintains that this networking

infrastructure is also a delivery channel for reaching the poor and remote areas with more responsive and cost effective public services. New systems architecture, new web software and highspeed networking enable all this to happen on much more favourable economic terms thus providing a real incentive for utilization by organizations (Kim, 2018). The transforming impact of ICT in business in the global economy, therefore, motivated the researcher to determine the extent of utilization of ICT to enhance internal audit practices and public expenditure management.

Theoretical Framework The Theory of Budgeting

Shields and Young, (1993) posit that budget acts as a detector of variances between organizational objectives and performance and vital part to the umbrella concept of an effective budgetary performance. Budgets project future financial performance which enables evaluating the financial viability of a chosen strategy. In most organizations this process is formalized by preparing annual budgets and monitoring performance against budgets (Silva & Jayamaha, 2012).

Budgets reflect the financial implication of business plans, identifying the amount, quantity and timing of resource needed (Shields and Young, 1993). They form benchmarks by comparing actual results with budgeted plans and to take corrective actions if necessary (Sharma, 2012). Budgets do influence the behavior and decisions of employees by translating business objectives, and providing a yardstick against which to assess performance. Bedford, (2015) even considered such operational planning as the backbone of management. A budget allows a goal and a standard of performance to be established with subsequent comparison of actual results with the created standard. It requires those involved to be forward looking rather than looking back (Bedford, 2015). Budgets make goals explicit, code learning, facilitate control and contract with external parties (Arnold & Gillenkirch, 2015). Fisher exemplified this by "linking compensation to performance measures against the budget", thereby making goals explicit, communicating goals and thereby coding learning and clarifying performance measures for individual employees of an organization (Karadag, 2015).

Theory of Control

Adequate control is very essential to every organization be it individual or government owned all over the world. This is because if there is no adequate control of resources in the organization. it will be practically impossible to monitor budgets. The theory of control specifies the obligations of government/ industries in providing social and basic amenities to the citizens. It indicates that government owned industries is a basic principle of control on those scarce resources they are meant to manage (Robinson, 2009). Shields and Young. (2009) contend that government industries ought to provide both resources and employment to the citizens for meeting the laid down objectives. This implies that the government, board members and staff have joint responsibility to ensure proper accounting practices and timely budgetary implementation and appropriations by building effective management controls and directions. As per this theory, state corporations are expected to live to responsibility of establishing standards, adequate controlling mechanism and acceptable accounting practices. Government enterprises need not to have unethical persons acting outside controls as ineffective control system in every organization can negatively affect organizational profitability and sustainability as well as companies' resources and performance.

Empirical Review

Some empirical studies have been done on this subject matter in some countries of the world. It is evident from the literature that Nigeria's public expenditure management system under Obasanjo's administration was founded on the same philosophy and principles that guided that of his predecessors (Alberta, 2005; Adedokun, 2014; Kiema, 2015).

De Baerdemaeker and Bruggeman, W, (2015) assessed the impact of participation in strategic planning on managers' creation of budgetary slack: The mediating role of autonomous and affective organizational motivation commitment. This study used a self-scale to detect fraud, primarily related to the misappropriation of assets. The researchers conducted a survey of the process of fraud in 2014 for clients (KPMG), and it became clear from the study that the organizations that have the internal audit function better able to detect manipulation and fraud and fraud within their organizations for those that do not have that function, in addition to organizations that rely on the external auditor only less ability to detect fraud within their organizations. The study concluded that the internal audit is the added value through better control and the need for the internal auditors of all internal audit functions of the municipalities in the Gaza Strip, and to increase the commitment of internal auditors generally accepted internal auditing standards.

Muda, (2018) examined and determinants of the implementation of risk-based internal auditing. They evidence that internal auditors' independence was positively correlated with the share performance of listed banks in the country. While using an observational study research design a he noted this was established through corporate governance which created an environment of non-interference of internal auditors' work by senior management and consequently improving the image of listed banks. He further argued that this improved image also exhibited a positive relationship with investor confidence leading to improved share value and profitability ((Behrend & Eulerich, 2019).

Ge, Koester and McVay, (2017) did a study on the benefits and costs of Sarbanes-Oxley Section 404 (b) exemption: Evidence from small firms' internal control disclosures. The main objective of the study was to determine the relationship between internal audit process and budget variance in NGOs in Nigeria. The primary data was collected using questionnaire and data analyses were done using descriptive methods. The population of this study comprised of 6,075 NGOs in Nigeria over the last five years 2007-2011. Convenient sampling was used to select 20 NGOs for this study. The researcher used a questionnaire to collect primary data and the data was analyzed by descriptive data analysis using SPSS version 17. The research found that a unit change in budget preparation will lead to a 0.722% change in budget variance; a unit change in budgetary control will lead to a 0.661% change in budget variance.

Also, public expenditure management served as the key dependent or criterion variable under which the measures such as public expenditure management, allocative efficiency and operational efficiency were appraised. The study adopted part of the classifications of public expenditure management espoused by Abba and Kakanda (2017); Bedford and Malmi, (2015) and Shields, (2015) as well as the Bretton wood institutions' work on the measurement of public expenditure management variables (World Bank, 2003).

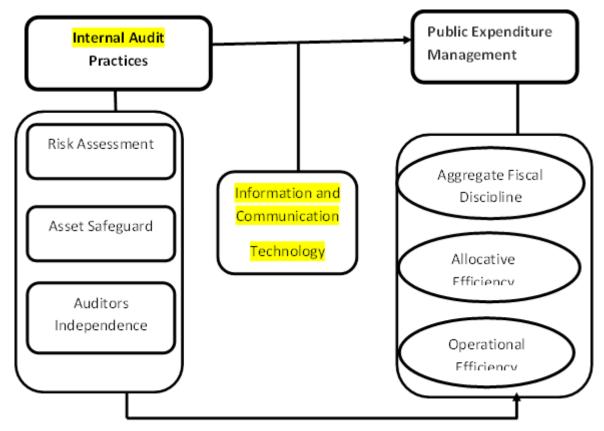


Figure 1: Operationalized Framework of the Moderating Effect of Information and Communication Technology on Internal Audit Practices and Public Expenditure Management of Government Organisations in Nigeria

Source: Sanusi, F. A. & Mustapha, M. B. "The effectiveness of budgetary control system and financial accountability at local government level in Nigeria impact." *International Journal of Research in Business Management (IMPACT: IJRBM)* 3.5 (2015).

METHODOLOGY

The research design that was adopted for this study is a survey approach. Therefore, the research was carried out at one specific moment in time which means it can be qualified as a cross-sectional study. The population of the study consisted of all the key management and middle administrative staff in the five major government owned organizations in Nigeria that are knowledgeable on the study's area of interest. Considering that the population of the study is not large (only 350 Managers/Officers). moderating variable is measured with information communication technology. regression was used to test the moderating variable (Akujuru & Enyioko, 2018). Regression analysis was used to test the extent of the effect individual collective variable(s) Specifically, ordinary least square estimate was used for the analysis. Also, regression analysis (ordinary least square method - OLS) was used to test the hypotheses formulated in the study in order to determine the effect of the dimensions of the independent variables on the measures of the dependent variables. All these analyses were computed through the use of statistical package for social sciences (SPSS) IBM SPSS Statistics 22 version.

Model Specification

 $Y_1 = b_o + b_1 x_1 + b_2 x_2 + b_3 x_3 + e$ -----(1) { for testing $H_1,\, H_2,\, H_3\}$

AFD = f (RA, AS, AI), Where; AFD = Aggregate fiscal discipline; RA = Risk assessment; AS = Asset safeguard; AI = Auditors' independence

 $Y_2 = b_0b_4x_4 + +b_5x_5 + b_6x_6 + e$ -----(2) {for testing H_4, H_5, H_6 }

AE = f (RA, AS, AI). Where; AE = Allocative efficiency; RA = Risk assessment; AS = Asset safeguard; AI = Auditors' independence

 $Y_3 = b_0 + b_7 x_7 + b_8 x_8 + b_9 x_9 + +e$ -----(3) {for testing H_7 , H_8 , H_9 }

OE = f (RA, AS, AI). Where; OE = Operational efficiency; RA = Risk assessment; AS = Asset safeguard; AI = Auditors' independence

 $Y_4 = b_o + b_1x_1 + b_2x_2 + b_3x_3 + e$ -----(4) {for assessing the objectives of the study}

PEM = f(RA, AS, AI)

Where; PEM = Public expenditure management; RA = Risk assessment; AS = Asset safeguard AI = Auditors' independence

Statistical Model Specification

The model is therefore specified thus:

 $Y_{mv} = b_0 +b_1x_1+b_2x_2+b_3x_3z+e$; for moderating variable

 $Y_{2mv} = b_o + b_4 x_4 + b_5 x_5 + b_6 x_6 z$ +e; for moderating variable

 $Y_{3mv} = b_o +b_7x_7+b_8x_8+b_9x_9 z +e$; for moderating variable

Where; Y_{mv} = Public expenditure management with moderating variable;

Z = Moderating Variable; b_0 = The parameter which represents the intercept, b_1 , b_2 , b_3 , b_4 , b_5 , b_6 , b_7 , b_8 , b_9 = the regression parameters were used in determining the significance of the effect of each of the independent variables x_1 , x_2 , x_3 , x_4 , x_5 , x_6 , x_7 , x_8 , x_9 on the dependent variables Y_1 , Y_2 , Y_3 .

 $Y_{mv.}$ e = Random disturbance term. The coefficient of determination (R^2) was used to measure the rate at which the independent variable was explained by dependent variables. The a priori expectations for the coefficients are as follows: $\beta_0 > 0$; $\beta_1 > 0$; $\beta_2 > 0$; $\beta_3 > 0$; $\beta_4 > 0$; $\beta_5 > 0$; $\beta_6 > 0$; $\beta_7 > 0$; $\beta_8 > 0$; $\beta_9 > 0$; $\beta_{10} > 0$

RESULTS AND ANALYSIS

The study looked at the effect of information and communication technology on internal audit practices and public expenditure management of government organizations. To do this, the study formulated this hypothesis - Ho: Information and communication technology has no significant effect on internal audit practices and public government expenditure management of organizations. The stepwise regression which is used to generate incremental validity evidence in psychometrics and moderation effect has been used to test hypothesis 1 as shown in Tables 1 and 2:

Table 1: Result of the Regression Output of the Effect of Information and Communication Technology on Internal Audit Practices and Public Expenditure Management of Government Organizations (Stepwise-Model)

Model Summary ^c												
Model	R	R	Adjusted	Std. Error	Change Statistics Du							
		Square	R Square	of the	R	F	df1	df2	Sig. F	Watson		
				Estimate	Square	Change			Change			
					Change							
1	0.819^{a}	0.671	0.669	0.20867	0.671	267.394	1	298	0.000			
2	0.827^{b}	0.684	0.679	0.20547	0.012	5.106	1	297	0.026	1.626		
a. Predictors: (Constant). Information and communication technology												

b. Predictors: (Constant), Information and communication technology, Auditor independence

c. Dependent Variable: Public expenditure management of government organisations

Source: Research Data 2022, and IBM SPSS Statistics 22 Window Output

Table 1, shows the model depicting the moderating effect of information and communication technology on internal audit practices and public expenditure management of government organizations through the use of stepwise multiple regression. The output on stepwise regression model summary shows that the multiple correlation coefficient R of 0.819 and the coefficient determination R² of 0.671 revealed the fitness of the model to test the significant effect of the variables. The R² of 0.671 confirms that 67.10% of the sample variation in public

expenditure management of government organizations is explained by information and communication technology in the model. The F-statistic or F-change value is found to be 267.394 indicating that the F value is significant at the 5 percent level. The overall fit of the regression model measured by the F- statistic, is statistically significant at this level. The Durbin Watson (DW) statistic of 1.626 indicates that there is no problem of serial correlation or autocorrelation in the regression model.

Table 2: Result of the Regression Output of the Effect of Information and Communication Technology on Internal audit practices and Public expenditure management of government organizations (Stepwise-Coefficients)

Coefficients												
	Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.						
		В	Std. Error	Beta								
1	(Constant)	2.315	0.104		22.235	0.000						
	Information and communication	0.472	0.029	0.819	16.352	0.000						
	technology											
2	(Constant)	2.215	0.112		19.827	0.000						
	Public expenditure management	0.353	0.060	0.613	5.904	0.000						
	Auditor independence	0.148	0.066	0.235	2.260	0.026						

a. Dependent Variables: Public expenditure management of government organisations **Source:** Research Data 2022, and IBM SPSS Statistics 22 Window Output

The stepwise regression in Table 2 reveals that at the first level of operation the t-value of information and communication technology was found to be 16.35 indicating significant effect on internal audit practices. Also, at the second order level of the regression the t-value of information and communication technology was found to be 5.90 indicating significant effect on public management of government expenditure organizations. Using the stepwise regression procedure, the study found that information and communication technology is moderating the effect of internal audit practices on public expenditure management of government organizations.

One of the study's regression assumptions is that the residuals (prediction errors) are normally distributed. The normal p-plot of regression residual in figure 3 reveals that this holds for the results of the data as the residuals for testing the information and communication technology on internal audit practices and public expenditure management of government organizations were normally distributed.

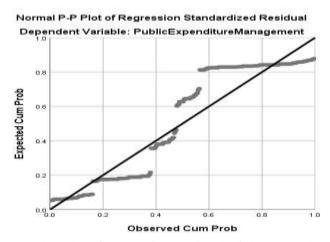


Figure 3: Normal P-Plot of Regression Residual of the Dependent Variable **Source:** Research Data 2019, and IBM SPSS Statistics 22 Window Output

DISCUSSION

The study found that cultivating interpersonal confidence is a key instrument to internal audit practices and utilizing information and communication technology is much more difficult than in a traditional accounting environment where asset safeguard-to-asset safeguard-communication is consummated. Information and communication technology is significantly related

to the extent of inter unit resource exchange (World Bank, 2017). Muda. *et al.*, (2018), found that information and communication technology has a downstream effect on members' intentions to both give information and get information through the auditing practices. Erlina and Muda, (2018) opine that high levels inaccurate remarks were associated with slow information and

communication technology development in computer mediated government organizations.

In their own study, Ademola. *et al.*, (2015) found that positive interaction and internal audit among friends can motivate a sustainable growth of information and communication technology. Interpersonal information and communication technology (including both affect based and cognition-based information and communication technology) has positive influence on complex knowledge sharing.

Also, Adeniji, (2011), argues that students' usage of a specific professional competence could be attributed to competence-based information and technology communication in **Professional** to their information and competence and communication technology in **Professional** competence network members. For Sharma, (2012),information and communication technology have positive effects on the quality and the quantity, of shared knowledge. Arnold and Gillenkirch, (2015) found that users' information and communication technology in the ability of auditor independence increase using willingness to share information. World Bank, (2017) observes that people's interpersonal information and communication technology and auditing information sharing performance differ from different public expenditure management perspectives (China and German).

Information and communication technology are used in internal auditing and this affects internal auditing. It is suggested that we use information and communication technology increasingly so that the quality of internal auditing can be improved and accordingly, systematic planning and performing internal auditing operations be in accordance with the same planning. Furthermore, applying information and communication technology by internal auditing units of companies helps to engender efficiency. So once customers have built faith in the online retailer that they are going to interact with, they will highly possibly have better experience with less worries or concerns being involved (Adeniji, 2011). All the above highlighted studies confirm the findings of this study conclusively that information and communication technology has positive and significant effect on internal audit practices and public expenditure management of government organizations.

SUMMARY

This study investigated the moderating effect information and communication technology on internal audit practices and public expenditure management of government organizations in Nigeria. Internal audit helps an organization to accomplish its objective by bringing a systematic disciplined approach to evaluate and improve the effectiveness of risk management control and governance processes. The study covered five government organizations (Central Bank of Nigeria, Nigerian Ports Authority, Nigeria Maritime Administration & safety Agency, Niger Delta Development Commission and Nigerian National Petroleum Corporation) with a study population of 350. Questionnaire was used to gather data after which regression analysis was applied to test the effect of a variable over the other via the statistical package of social sciences.

The study found that cultivating interpersonal confidence is a key instrument to internal audit practices and utilizing information communication technology is much more difficult than in a traditional accounting environment where asset safeguard-to-asset safeguard communication is consummated. Information and communication technology is significantly related to the extent of inter unit resource exchange. It is also, revealed that information and communication technology has a downstream effect on members' intentions to both give information and get information through the auditing practices and that high levels inaccurate remarks were associated with slow information and communication technology development in computer mediated government organizations.

The study found that the effect-based information and communication technology in a team, positively relates to the degree of knowledge sharing and learning intensity in the audit team. Information and communication technology positively influences internal audit practice towards public expenditure management and has a mitigating effect on aggregate fiscal discipline, allocative efficiency of operational efficiency of public sector organisations. The study revealed that information and communication technology are used in internal auditing and this affects public expenditure management. It is suggested that information and communication technology be used increasingly so that the quality of internal auditing can be improved and accordingly, systematic planning and performing internal auditing operations in order to achieve efficient public expenditure management in public organisations.

The study revealed that information and communication technology are used in internal auditing and this affects public expenditure management. It is suggested that information and communication technology be used increasingly so that the quality of internal auditing can be improved and accordingly, systematic planning and performing internal auditing operations in order to achieve efficient public expenditure management in public organisations. Furthermore, applying information and communication technology by internal auditing units of companies helps to engender efficiency. So once customers have built faith in the online retailer that they are going to interact with, they will highly possibly have better experience with less worries or concerns being involved.

CONCLUSION

The results of the study have given a clear indication that information and communication technology have significant effect on internal audit practices and public expenditure management of government organizations. Conclusively, it is evident that as: Government organisations engage in risk assessment they achieve their public positively expenditure management and significantly. This simply means that risk assessment as an instrument of internal audit influences public expenditure management to elicit good public expenditure management of government organisations.

Government organisations safeguard their assets they positively and significantly encourage public expenditure management. This simply means that asset safeguard as an organ of internal audit practices positively influences public expenditure management which is a measure of public expenditure management of government organisations and it contributes to the success of organisational performance.

RECOMMENDATIONS

This study empirically examined the moderating effect of information and communication technology on internal audit practices and public expenditure management of government organizations in Nigeria. Based on the findings and the conclusions on the study, the following recommendations have been made:

Public sector administrators should use risk assessment to their advantage by encouraging government organisations' staff with proficiency in information and communication technology application.

Auditor independence can also be a veritable measure for building goodwill and achieving aggregate efficiency. The study recommends that government organizations engage professionally qualified auditors who independent minded in order to achieve quality audit output in public sector organisations.

Government organizations' staff should update their knowledge with respect to risk assessment and allocative efficiency through the opportunities provided by information and communication technology solutions so as to be able to benefit from the strategic values of effective and efficient public expenditure management.

Asset safe guard is a critical issue which the internal auditor must maintain stringently in order to enhance allocative efficiency. In this respect, the internal auditor should have the clout and pedigree to query any staff whose track record is questionable when it comes to asset safe guard in government organisations and information and communication technology application.

REFERENCES

- 1. Abba, M., & Kakanda, M. M. "Moderating effect of internal control system on the relationship between government revenue and expenditure." *Asian Economic and Financial Review* 7.4 (2017): 381-392.
- 2. Adedokun, S. A. "Internal audit function and public expenditure management in Oyo State (Unpublished M.Sc. Accounting Dissertation)." *Obafemi Awolowo University, Ile-Ife, Nigeria* (2014).
- 3. Ademola, I. S., Adedoyin, A. O. & Alade, O. R. "Effect of internal control system in Nigeria public sectors: a case study of Nigeria national petroleum corporation." *International Journal of Economics, Commerce and Management*, 3.6 (2015): 1093-1105.
- 4. Adeniji, A.A. "Auditing and investigations." *Wyse Associates Limited, Ikeja Nigeria* (2011).
- 5. Ahmad, N., Othman, R. & Jusoff, K. "The effectiveness of internal audit in Malaysian Public Sector." *Journal of Modern Accounting and Auditing* 5.9 (2009): 84 790.
- 6. Akujuru, C. A. & Enyioko, N. C. "Social science research: Methodology and conceptual

- perspectives." Beau Bassin: Lambert Academic Publishing (2018).
- 7. Alaswad, S.A.M. & Stanišić, M. "Role of internal audit in performance of Libyan financial organizations." *International Journal of Applied Research* 2.2 (2016): 352-356.
- 8. Alau, S. & Abdulkadir. "An assessment of influence of budget process on budget performance." *A Case study of Kwara State, Nigeria* (2009).
- 9. Alberta, A.G. "Examination of internal audit departments." *Internal Audit Report* (2005).
- 10. Ahmad, N., Othman, R. & Jusoff, K. "The effectiveness of internal audit in Malaysian public sector." *Journal of Modern Accounting and Auditing* 5.9 (2009): 784-790.
- 11. Alzeban, A. "Influence of audit committees on internal audit conformance with internal audit standards." *Managerial Auditing Journal* 30.6-7(2015): 539-559.
- 12. Arena, M. & Azzone, G. "Identifying organizational drivers of internal audit effectiveness." *International Journal of Auditing* 13(2009): 43–60.
- 13. Arnold, M. C. & Gillenkirch, R. M. "Using negotiated budgets for planning and performance evaluation: An experimental study." *Accounting, Organizations and Society* 43(2015): 1-16.
- 14. Bedford, D. S. "Management control systems across different modes of innovation: Implications for firm performance." *Management Accounting Research* 28(2015): 12-30.
- 15. Bedford, D. S. & Malmi, T. "Configurations of control: An exploratory analysis." *Management Accounting Research* 27(2015): 2-26.
- Behrend, J. & Eulerich. "The evolution of internal audit research: a bibliometric analysis of published documents (1926–2016)."
 Journal of Accounting History Review 29.1(2019): 103-139.
- 17. Chenhall, R. H. & Moers, F. "The role of innovation in the evolution of management accounting and its integration into management control." *Accounting, Organizations and Society* 47 (2015): 1-13.
- De Baerdemaeker, J. & Bruggeman, W. "The impact of participation in strategic planning on managers' creation of budgetary slack: The mediating role of autonomous motivation and affective organizational commitment." *Management Accounting Research* 29 (2015): 1-12.

- 19. Deepak, J. "PFMblog: Internal audit in the public sector: underdeveloped and under used." (2010). http://blog-pfm.imf.org/PFMblog
- 20. Erlina, C. & Muda, I. "Determinants of the implementation of risk-based internal auditing." *International Journal of Civil Engineering and Technology* 9.5 (2018): 1360 1372.
- 21. Ge, W., Koester, A. & McVay, S. E. 'Benefits and costs of Sarbanes-Oxley section 404(b) exemption: evidence from small firms' internal control disclosures." *Journal of Accounting & Economics* (2017).
- 22. Güneş, N. & Atılgan, M. S. "Comparison of the effectiveness of audit committees in the UK and Turkish Banks." *International Journal of Financial Research* 7.2 (2016): 18-29.
- 23. IIA. "Measuring Internal audit effectiveness and efficiency." IPPF–Practice guide. *The Institute of Internal Auditors* (2010).
- 24. IIA. "Measuring Internal Audit Effectiveness and Efficiency." *IPPF- Practice guide. The Institute of Internal Auditors* (2010).
- 25. Karadag, H. "Financial management challenges in small and medium-sized enterprises: A strategic management approach." *Emerging Markets Journal* 5.1 (2015): 26-40.
- 26. Kiema, H.M. "Influence of internal audit independence on the financial performance of small and medium enterprises: a case of the construction industry in Mombasa County, Kenya." Unpublished Research Project for Master of Business Administration Degree, *Technical University of Mombasa* (2015): 1-77
- 27. Modar, A. & Shatha, K. "The role of internal auditing in risk management: evidence from banks in Jordan." *Journal of Economic and Administrative Sciences* 31.1 (2015): 30-50.
- Monday, J. U. & Aladeraji, O. K. "Strategic Management and Corporate Performance: A Resource-Based Approach." *Ife Journal of Humanities and Social sciences* 2.2 (2015): 15-32.
- 29. Muda, I., Erlina, I. Y. and A. A. Nasution. "Performance audit and balanced scorecard perspective." *International Journal of Civil Engineering and Technology* 9.5 (2018): 1321-1333.
- 30. Muhibat, A. O. "The Impact of Internal Control System on Revenue Generation in Public Establishment." *International Journal*

- of Contemporary Applied Sciences 3.8 (2016): 46-53.
- 31. Robinson, M. & Last, D. "Budgetary control model: The process of translation." *Accounting, Organization and Society* 16.5/6 (2009): 547-570.
- 32. Rotich K.C. "Factors affecting budget utilization Kericho county government in Kenya." *International Journal of Economics, Commerce and Management* 3.6 (2015): 510-527
- 33. Sanusi, F. A. & Mustapha, M. B. "The effectiveness of internal control system and financial accountability at local government level in Nigeria." *International Journal of Research in Business Management* 3.8 (2015): 1-6.
- 34. Scott, G. K. "Influence of public financial management practices on service delivery: a case of District Assemblies of Ghana." *Unpublished PhD Thesis. University of Cape Coast, Ghana* (2016).
- 35. Sharma, P. "Performance measurement in NGOs." *The Management Accountant* (2012): 1442-1445.
- 36. Shields, J.F. & Shields, M.D. "Antecedents of participative budgeting." *Accounting, organizations and society* 23.1 (1998): 49-76.
- 37. Shields, M. & Young, S.M. "Antecedents and consequences of participative budgeting:

- evidence on the effects of asymmetrical information." *Journal of Management Accounting Research* 5.1 (1993): 265-280.
- 38. Shields, M. D. "Established management accounting knowledge." *Journal of Management Accounting Research* 27 (2015): 123-132.
- 39. Silva, L. M. D. & Jayamaha, A. 'Budgetary process and organizational performance of apparel industry in Sri Lanka." *Journal of Emerging Trends in Economics and ManagementSciences* 3.4 (2012): 354-360.
- 40. Unegbu, A.O. & Obi, B.C. "Auditing Hipuks, Enugu." *Additional Press* (2012).
- 41. Vijayakumar, A.N. & Nagaraja, N. "Internal control systems: Effectiveness of internal audit in risk management at public sector enterprises." *BVIMR Management Edge* 5.1 (2012): 1 8.
- 42. World Bank. "Case study 2-Porto Alegre, Brazil: Participatory approaches in budgeting and public expenditure management." Social Development Notes: 71. *Washington: World Bank*. https://openknowledge.worldbank.org/handle.Accessed on 5/7/2019 (2003).
- 43. World Bank. "World Development Report: Governance and the Law." *Washington*, *DC*. https://openknowledge.worldbank.org/bitstream/handle/ (2017).

Source of support: Nil; Conflict of interest: Nil.

Cite this article as:

Damieibi, I. J. "Moderating Effect of Information and Communication Technology on Internal Audit Practices and Public Expenditure Management of Government Organizations in Nigeria." *Sarcouncil Journal of Entrepreneurship and Business Management* 1.1 (2022): pp 1-12