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INTERNAL AUDIT AND FINANCIAL PERFORMANCE OF LISTED COMPANIES IN NIGERIA

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Abstract
The study examines whether a significant relationship exists between the internal audit function and the financial performance of listed companies in Nigeria. It also explores the influence of internal control systems, standard operating procedures, and human resources on financial performance. Data were collected from the annual reports and corporate websites of the selected companies covering the period from 2017 to 2021. Panel least square regression was used to test the research hypotheses. The results indicate significant positive relationships between the explanatory variables (internal control system, human resources, and standard operating procedures) and the dependent variable (financial performance). The study recommends implementing a robust internal audit function, ensuring that internal auditors report directly to corporate governance, and establishing effective internal control systems to maintain a healthy tone at the top.

Keywords: Internal Audit, Internal Control System, Human Resources, Standard Operating Procedures, Financial Performance

1. Introduction

Globally, internal auditing has long been recognized as an essential mechanism for ensuring the robustness of an organization's internal control systems. Its primary functions encompass evaluating financial and operational data, reviewing compliance with regulations, and assessing the economy, efficiency, and effectiveness of operations (Egiyi and Okafor, 2022). The role of the internal auditor is pivotal in enhancing organizational processes and structures. By reinforcing internal control mechanisms, streamlining standard operating procedures, and optimizing human resource management, internal auditors contribute significantly to the achievement of both financial and non-financial objectives (Wanyama, 2018).

Assessing firm performance is central to understanding whether an organization is on course to meet its strategic objectives. Firm performance, typically measured through a combination of financial and non-financial indicators, reflects the extent to which a firm operates effectively, generates profits, and creates value for stakeholders (Dauda et al., 2024). Performance failures can be attributed not only to poor management, resource misappropriation, and fraudulent activities but also to the absence of a well-implemented internal audit function, which is intended to address and prevent such issues (Anokye, 2022).

However, despite the internal audit application, the absence of stringent regulatory frameworks governing internal audit practices allows for significant variation in how the function is executed across different entities (Institute of Chartered Accountants of Nigeria [ICAN], 2019). These variations are largely influenced by organizational characteristics such as size, structure, industry, the degree of technological integration, and the management's approach to risk and control.

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The efficacy of internal audit is frequently questioned, particularly concerning its independence. Critics argue that internal auditors, by reporting to the very management responsible for the operations they audit, may not maintain the necessary level of objectivity. This lack of independence is seen as a fundamental challenge, as the status and effectiveness of the internal auditor are inherently tied to their reporting structure within the organization. Besides the lack of independence of the internal auditors, there is contention about the relationship that exists between internal auditing and financial performance (Egiyi and Okafor, 2022).

Many developed countries, including Nigeria, have shown significant interest in the impact of internal audit activities on firm financial performance (Egiyi and Okafor, 2022). Despite having a relatively effective internal audit structure, Nigeria has seen limited research on the relationship between internal audits and the financial performance of listed companies, particularly in the context of increasing industrialization and unethical business practices. Previous studies, such as those by Kadir (2021), Akinjare et al. (2019), and Fasua (2019), have focused on topics like standard operational procedures, internal supervision, employee performance, Human Resource Accounting (HRA), and internal control systems. Other researchers, including Wanyama (2018), and Egiyi and Okafor (2022), have addressed internal control systems, internal operations, and performance, but none have specifically examined the elements of internal control systems, standard operational procedures, and human resources concerning financial performance. To the best of our knowledge, no prior literature has effectively captured the explanatory variables related to firm financial performance. This study will utilize internal audit indicators such as elements of the internal control system, standard operational procedures, and human resources. Furthermore, it differentiates itself from earlier Nigerian studies by employing the internal control system, standard operational procedures, and human resources (explanatory variables related to firm financial performance) with multiple regression analysis as its data analysis method.

The few extant studies on the subject matter revealed complex and often contradictory views of the relationship between internal auditing and financial performance. Studies such as those by Wanyama (2018) and Egiyi and Okafor (2022) demonstrate a positive correlation, suggesting that internal audit functions contribute to improved financial outcomes. These studies employ rigorous methodologies, including primary data collection and multiple linear regression analysis, to support their findings. Conversely, Al-Kuhabi (2020) presents a broader perspective, indicating that not all facets of internal auditing positively influence financial performance. Muchiri and Jagongo (2017) found no significant relationship between internal audit and financial performance, exemplifying the variability of results across different contexts.

The remaining aspects of this paper recentre on the relationship between the internal control system and the financial performance of listed companies in Nigeria, the relationship between standard operational procedures and the financial performance of listed companies in Nigeria, and the relationship between human resources and financial performance of listed companies in Nigeria. This study establishes three objectives: to investigate the internal control system and financial performance of listed companies in Nigeria, the relationship between standard

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operational procedures and financial performance of listed companies in Nigeria, and the relationship between human resources and financial performance of listed companies in Nigeria.

Literature and Conceptual Review

Financial performance

According to Rosikah (2018), a company's financial performance is a measure of its ability to generate profit, revenue, or income. This is particularly relevant in sectors like banking, where financial statements serve as key indicators of performance. Financial performance reflects the financial condition of a company over a specific period, including both income and expenditures, and is assessed using various metrics such as capital adequacy, liquidity, leverage, solvency, and profitability ratios. It essentially evaluates a company's ability to effectively manage and control its resources (Sriviboon and Jermsittiparsert, 2019). Profitability ratios are critical in assessing management efficiency, often measured by returns on invested capital and turnover. These ratios include return on assets (ROA), net profit margin, and gross profit margin. A higher ROA signals a company's effectiveness in utilizing its assets to generate profits. ROA is a vital indicator for potential investors, as a high ROA suggests better performance and can positively influence a company's stock value in the capital market. In essence, ROA plays a significant role in determining a firm's value (Fasua, 2019).

Internal Audit

Internal audit plays a vital role in improving the financial performance of listed companies. It functions as an independent, objective assurance and advisory service aimed at adding value and enhancing organizational operations. By examining policies and practices, internal audits ensure compliance with laws, regulations, and standards. This involves conducting regular audits to evaluate the effectiveness of management and internal controls and identifying and addressing any deficiencies or irregularities within the organization (Egiyi and Okafor, 2022). Additionally, internal audits assess the organization's performance in achieving its objectives, focusing on criteria such as economy, efficiency, and effectiveness (Wanyama, 2018). The implementation of internal auditing supports the reinforcement of internal control systems, standardization of operational procedures, and optimization of human resources (Fasua, 2019).

Internal Control Systems

Frederick and Kyomuhendo (2022) describe an internal control system (ICS) as a coordinated structure of organizational procedures and actions aimed at safeguarding assets, ensuring the accuracy of accounting data, promoting efficiency, and adherence to management principles. Similarly, Otoo et al. (2023) emphasize that internal controls consist of policies and processes designed to ensure the achievement of management objectives (Fasua, 2019). According to COSO (2013), internal control is a process led by the board, management, and staff to ensure operational, reporting, and compliance goals are met. Hendri et al. (2019)defines internal control as a firm's plan, including methods to safeguard resources, ensure accounting accuracy, and improve efficiency.

Kamara (2023) argues that internal control mechanisms include strategies, processes, and techniques to safeguard assets, improve performance, and ensure policy adherence. The COSO framework (2013) outlines five components of ICS: control environment, control activities, risk assessment, information and communication, and monitoring, supported by Rafindadi &

Olanrewaju (2019). Global authorities like the World Health Organization and the World Bank have adopted this framework., According to Fasua (2019), a control environment is fundamental to internal controls, setting the tone at the top of the organization. Eniola et al. (2021) and Egiyi and Okafor (2022) agree, highlighting that the control environment shapes ethical standards and organizational discipline. Einhorn et al. (2023) add that management style and company culture also influence the control environment. To succeed, entities need leadership that upholds integrity and ethics (ICAN, 2019).

Risk assessment is one of the elements of internal control, and is defined as identifying risks to financial statements (Frederick and Kyomuhendo, 2022). Eniola et al. (2021) describe it as evaluating risks to achieve objectives. COSO (2013) break the process into risk identification, objective setting, change management, and response, aligning with Egiyi and Okafor (2022) practical insights. Control activities, according to Fasua (2019), involve policies and procedures to manage risk within set limits. Kaplan (2013) states that these activities enhance management controls, while Rafindadi and Olanrewaju (2019) add that control processes can be preventive, detective, or both. COSO (2013) elaborates that these activities apply across all control frameworks, influencing business risk management and decision-making.

Information systems, as defined by ICAN (2019), include data, software, and infrastructure. Eniola et al. (2021) emphasize that effective information flow is vital for decision-making. Noel (2010) warns that communication failures can render other internal control components ineffective. Finally, monitoring, as ICAN (2019) states, should be systematically evaluated by the board. Fasua (2019) agree that monitoring ensures the continued effectiveness of internal controls. Eniola et al. (2021) support these views, highlighting regular assessments and corrective measures.

Human Resources (HR)

Beth (2016) views human resources (HR) as the capacity to harness both mental and physical abilities, with behaviour shaped by genetics and environment. Studer (2016) defines HR as the individuals who fulfil roles such as managers, officers, employees, and workers within organizations. Dastmalchian et al. (2020) describe human resources through seven HR management (HRM) practices: recruitment and selection, training and development, compensation and rewards, performance management, career planning, employee involvement, and employment security. These HRM practices are emerging as key drivers of organizational success. According to Dede (2018), effective HRM practices include hiring skilled workers, training, performance evaluations, and offering career development opportunities, all of which foster positive employee attitudes and enhance performance.

Diaz-Fernandez et al. (2017) highlight that hiring qualified staff, providing employee training in new technologies, and offering competitive compensation positively impact innovation in service organizations. Aydoğan and Arslan (2020) argue that certain HRM practices, like performance-based rewards, information sharing, training programs, and pay policies, have a stronger influence on organizational commitment and financial performance. Finally, Sriviboon and Jermsittiparsert (2019) emphasize that HRM practices that enhance motivation, skill development, and employee commitment lead to greater organizational achievement.

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Standard Operating Procedure (SOP)

Kadir (2021) defines a standard operating procedure (SOP) as a written document that provides detailed, step-by-step, and systematic instructions for work processes. SOPs typically include written guidelines for routine or repetitive tasks performed by an institution and may be accompanied by references, attachments, forms, diagrams, and flow charts. The creation of SOPs should be clear, concise, and methodical, use straightforward language, be easy to understand, have a logical process flow, and contain accurate references. This aligns with the definition provided by Arip and Madju (2022).

Arip and Madju (2022) describe SOPs as written guidelines specifying what must be done, when, where, by whom, how to do it, and what is required, all of which must be followed. They add that the number of SOPs in an institution varies depending on the organization's needs, and as a company grows, the number of SOPs tends to increase or undergo amendments. Hendri et al. (2021) support Kadir (2021) and Arip and Madju (2022), viewing SOPs as instructions or references for completing tasks in line with the functions of an institution. They also serve as performance assessment tools based on technical, administrative, and procedural indicators that align with work processes, procedures, and systems within the relevant work unit.

Theoretical Review

Resource-Based View (RBV) Theory

This study reviewed the resource-based view (RBV) perspective from Barney (1991) and Teece et al. (1997), which emphasizes that an organization's ability to create valuable, rare, inimitable, and non-substitutable (VRIN) resources leads to competitive advantages and enhanced performance. RBV highlights internal resources and capabilities as key factors in achieving superior performance by fostering competitive advantages. This strategic process involves acquiring, developing, and efficiently coordinating human, tangible, and intellectual resources to drive innovation and achieve desired outcomes (Barney, 1991).

The RBV framework stresses improving organizational resources such as managerial skills, knowledge, competencies, and staff commitment to enhance performance (Barney 1991). In the context of educational institutions, which are heavily dependent on human resources, leveraging capabilities, skills, and knowledge is crucial for sustained performance. By implementing effective human resource management (HRM) practices, institutions can utilize human, intellectual, and technological resources, as well as employees' commitment and experience, to deliver innovative and value-added services.

Applying the RBV to the relationship between internal audit and financial performance, internal audit functions can be viewed as valuable resources that enhance organizational capabilities. By offering insights into risk management, control activities, and compliance, internal audit strengthens financial performance through improved efficiency, cost control, and governance. The integration of internal audit within the organization's VRIN resources enhances financial oversight, supports innovation in processes, and contributes to competitive advantage, ultimately driving better financial performance. Similar to how committed human capital adds value to educational institutions, a strong internal audit function bolsters organizational effectiveness and financial outcomes.

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Agency Theory

This study is based on Agency Theory, which suggests that corporations operate as agents for their shareholders. The agency relationship can be described as a contract between the organization's owners and its top management. Managers act as agents, performing services on behalf of the owners who delegate certain decision-making powers to them. However, these powers can be misused by managers to serve their interests. Therefore, the establishment of audit committees, as well as the roles of external and internal auditors, is essential for enhancing organizational performance and ensuring that management adheres to established procedures (Adams, 1994).

Internal auditors are seen as agents and monitors for various internal audit stakeholders, including the board, audit committee, and senior management. Agency problems can arise when the board or its audit committee is ineffective, giving senior management disproportionate influence over internal audit activities (Egiyi and Okafor, 2022). This creates a challenge for internal auditors: how can they effectively monitor management if they are ineffective? Although internal auditors are typically employed by senior management, they also serve as agents for the board and audit committee, which rely on their ability to assess senior management's performance. However, internal auditors may have incentives that lead them to act contrary to the interests of the board and audit committee. These motivations can include financial incentives from management, personal relationships with them, and the influence of senior management on the future roles and salaries of internal auditors. In such an environment, internal auditors might be inclined to bias information flows, raising concerns for the board and audit committee about the auditors' objectivity. Therefore, ensuring the objectivity of internal auditors is crucial for the board and its audit committee.

Empirical Review

Internal Controls and Financial Performance

Eniola et al. (2021) explore the impact of internal control structures on financial performance in listed companies from Nigeria's South-West region. Utilizing multi-level random sampling and multiple regression analysis, the study assesses the effects of internal audit control, control processes, risk management controls, control environments, and monitoring practices on financial performance. Their findings indicate a significant positive relationship between internal audit control, risk management, monitoring practices with operational performance. However, they also identify that monitoring practices and control environments negatively influence asset returns. The study concludes that internal controls are positively associated with financial performance.

Okharedia et al. (2023) investigate the effect of internal control systems on the financial performance of construction firms in Nigeria. Using ridge regression to analyze data collected through a self-administered questionnaire from 305 employees, they found a strong positive impact of internal control on financial performance, indicated by an R^2 of 82.92 per cent. Most aspects of internal control show positive and statistically significant effects on financial performance, although the positive effects of the control environment and risk assessment were found to be statistically insignificant.

Dauda et al. (2024) examine how internal control affects the financial performance of small and medium-sized enterprises in Ekiti State. Through a questionnaire survey of 75

SMEs in the Ado Ekiti area, they collected primary data to assess the influence of risk assessment, information and communication, and monitoring on return on assets (ROA). Their findings reveal a positive and significant correlation between risk assessment and ROA at the 5% level (P=0.018). The study concludes that internal control significantly enhances the financial performance of SMEs in Ekiti State.

Frederick and Kyomuhendo (2022) analyze the relationship between internal controls, managerial competence, and financial performance at ABU SACCO Mbarara. Employing a cross-sectional study design, they sampled 35 respondents from ABU SACCO's six branches and gathered data via questionnaires and audited financial statements from 2014 to 2017. Their correlation and regression analyses, conducted using SPSS version 21, indicate a significant positive relationship between internal controls and financial performance, suggesting that improvements in internal controls correlate with better financial outcomes. Additionally, they found a significant positive relationship between managerial competence and financial performance, although some dimensions of internal controls (specifically control activities and control environment) and certain aspects of managerial competence (notably interpersonal skills) did not show significant positive correlations. The regression analysis reveals that internal controls and managerial competence account for 58.4% of the variance in financial performance, leaving 41.6% attributable to other unconsidered variables, such as political and inflationary factors.

Given the impact of an internal control system on financial performance, the following hypothesis is tested:

H1: There is no significant relationship between the internal control system and the financial performance of listed companies in Nigeria.

2.3.2 Human Resources and Financial Performance

Ndum and Oranefo (2021) examine the effect of human resource cost on the financial performance of quoted brewery firms in Nigeria' by adopting Ex-Post-Facto research design. The population of the study is made up of 5 selected companies listed on the floor of the Nigerian Stock Exchange (NSE) as of 2019. It employs a regression analysis technique and the study's findings show that human resources has an insignificant positive effect on the return on assets of quoted selected firms in Nigeria. The study thereby recommended that Nigerian-selected firms should imbibe the culture of capitalizing and reporting investment on human resources that can improve quality and productivity.

Zámečník et al. (2021) investigate the inter-relationship of RM practices, service innovation, organizational commitment, and organizational performance simultaneously in a single model in higher secondary educational institutions of Pakistan employing descriptive, deductive, explanatory, cross-sectional and SEM as tools for data analysis. The findings of the study reveal that there is HRM practices have a positive effect on service innovation and organizational commitment. However, HRM practices have an insignificant positive effect on organizational performance. Moreover, service innovation and organizational commitment positively affected performance and fully mediated the relationship between HRM practices and organizational performance.

Akinjare et al. (2019) work on the impact of Human Resource Accounting (HRA) on the

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performance of Nigerian firms (2012 – 2016) sourced from ten (10) purposively selected annual reports and financial summaries of oil and gas companies from 2012 to 2016. The study makes use of ordinary least squares for the analysis of collected data. Findings show that both gross staff cost and training and development cost have a positive significant impact on the performance of oil and gas companies in Nigeria.

Manukaji et al. (2019) examine the effect of human resources development on the performance of quoted companies in Nigeria. The study adopted an ex post facto research design. A total of five companies quoted on the Nigerian Stock Exchange were examined using their 2014 to 2018 annual reports and accounts. The data generated were analyzed using descriptive statistics, correlation tests and ordinary least square estimation techniques. The study finds that employee remuneration and training and development costs have a significant effect on the performance of quoted companies in Nigeria. The size of employees was found to have an insignificant effect on the performance of quoted companies in Nigeria.

Onyinyechi and Ihendinihu (2017) investigate human resource accounting and financial performance of firms in Nigeria, employing SPSS software and multiple regression analysis as the statistical instrument. The study's findings show that human resource accounting has a significant positive effect on the PAT, while there is a negative impact on the Net Asset. The study concludes that human resources contribution to the financial growth of companies cannot be underrated. Companies should have a culture of training, developing and motivating the personnel to put in their best for the financial growth of their organizations. Providing them with infrastructures and a working environment could reduce the rate of job turnover being experienced among firms.

Obialor, (2017) carries out a study on the effect of government human capital investment on economic growth in Sub–Saharan Africa: evidence from Nigeria, South Africa and Ghana (1980-2013) to analyze the growth effect of three government human capital investment variables of health, education and literacy rate on the economies of these countries; Secondary data are sourced from World Development Indicators (WDI) online Database and analyzed using Co-integration techniques and Vector Error Correction mechanism (ECM) at 1% and 5% significance levels. This study concludes that despite the above result, the SSA countries' economies still exhibit the potential for enhanced economic growth in the long run judging from the VECM test results.

Ezejiofor et al. (2017) determined the adoption of human resource accounting on the Profitability of corporate organizations. Data collected were analyzed and tested with a t-test statistical tool with the aid of SPSS version 20.0 version. The study revealed that the study revealed that increase in staff salary has a positive effect on organizational profitability, also that the level of increment in staff influences organizational profitability. Another finding is that staff retirement benefits have a positive effect on organizational profitability. Hence, the following hypothesis is examined:

H2: There is no significant relationship between standard operational procedures and the financial performance of listed companies in Nigeria.

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Standard Operational Procedures and Financial Performance

Kadir (2021) examines the analysis of the effect of standard operational procedures, and internal supervision on employee performance at the regional tax and level management agency of Tapin district in Rantau using an analytic survey. The research is explanatory in approach. A sample of 37 people used the total sampling technique. Data collection techniques used questionnaires, documentation, interviews and observations. Validity and reliability tests were carried out on the research instrument. Data were analyzed by multiple linear regression analysis with a classical assumption test. The results show that Standard Operating Procedures, Internal Control and Workload have a significant simultaneous effect on Employee Performance at the Regional Tax and Levy Management Agency of Tapin Regency in Rantau. Standard Operating Procedures and Internal Controls have a significant partial effect on Employee Performance at the Tapin Regency Regional Tax and Retribution Management Agency in Rantau and there is no significant effect of Workload on Employee Performance at the Tapin Regency Regional Tax and Levies Management Agency in Rantau. Standard Operating Procedures have a dominant and significant effect on employee performance at the Regional Tax and Levy Management Agency of Tapin Regency in Rantau.

Hendri et al. (2021) investigated determinants of fraud prevention and financial performance as an intervening variable the study's population is 58-unit schools and all schools and power finance unit manager Tarakanita School unit in Indonesia amounting to 202 people employing purposive sampling method arrived at 142 sample size. Data obtained from them were processed through the smart PLS processed method. The findings of the study revealed that the three explanatory variables, the quality of HRs, Internal control systems and standard operation procedure, have significant positive effects on financial performance. Organizational culture has a significant effect on financial performance. The finding of the study's analysis mediating variables using the Sobel test shows that financial performance can mediate the effect of the quality of HRs, internal controls, SOPs and organizational culture on the prevention of fraud. Therefore, these results suggest the following hypothesis:

H3: There is no significant relationship between human resources and the financial performance of listed companies in Nigeria.

Methodology

Research Design Model Specification

This study adopted the use of the secondary method of data collection from annual reports and corporate websites of listed companies in Nigeria. It also employed a quantitative method research design in which content analysis was used to obtain data from 30 selected listed companies' annual reports covering 5 years from 2017 to 2021. The choices of the population and number of years were based on the availability of data and convenience.

Model specification

This study employed an econometric technique to test the impact of an independent variable, internal audit, which is decomposed into (Internal Control Systems (ICS), Human Resources (HR) and Standard Operating Procedures (POS)) on a dependent variable, Financial Performance, Return on Asset (ROA) as a proxy. The model is formulated in this study using Panel Least Square Regression, the model is as follows:

ROA=f(IntIA)---------- (i)

ROA = f (ICS, HR and SOP) ---------- (ii)

$ROA = \alpha_0 + \alpha_1 ICS_{it} + \alpha_2 HR_{it} + \alpha_3 SOP_{it} + \varepsilon_t$ ---------- (iii)

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Where: IA= Internal Audit; ROA= Return on Asset; ICS = Internal Control Systems; HR= Human Resources; SOP = Standard Operating Procedures; ε_{it}= Error Term; t= time; i= industry
α_1, α_3 = Co-efficient of associated variables.
Therefore, *apriori* expectations of the coefficients are:

$\alpha_1 > 0$: An increase in the introduction of ICS will lead to an increase in the value of FP.
$\alpha_2 > 0$: An increase in HR will lead to an increase in FP.
$\alpha_3 < 0$: An increase in SOP will lead to a decrease in FP.

Presentation and Discussion of Analyses

Descriptive Statistics

Table 1: Descriptive Statistics

	ROA	ICS	HR	SOP
Mean	2.421275	4.966667	0.700000	0.853333
Median	0.073044	5.000000	1.000000	1.000000
Maximum	7.470000	6.000000	1.000000	1.000000
Minimum	-0.206153	1.000000	0.000000	0.000000
Std. Dev.	8.052771	1.439690	0.459793	0.354958
Skewness	0.044065	-1.579888	-0.872872	-1.997513
Kurtosis	2.674394	3.468942	1.761905	2.990057
Jarque-Bera	12872.85	75.88736	28.62812	124.5035
Probability	0.256070	0.230865	0.035679	0.876400
Sum	363.1912	745.0000	105.0000	128.0000
Sum Sq. Dev.	9662.221	308.8333	31.50000	18.77333
Observations	150	150	150	150

Source: Author's computation (2023)

Table 1 shows the descriptive statistics of internal audit and financial performance of listed companies. The mean scores of the data displayed the level of consistency as they fell within the minimum and maximum scores. Thus, the Return on Asset (ROA) stood at mean values of 2.421275. The median value of the variable was 0.073; its maximum value was 7.470 and its minimum value of -0.206. The standard deviation measuring the spread of the distribution stood at a value of 8.053. Almost entire variables used are negatively skewed to the left of the mean as shown above except for Return on Asset (ROA). The skewness and kurtosis statistics of the variables were normally distributed as close to 0 and ±3 respectively. According to the Jarque-Bera (JB) statistics and their corresponding probabilities, all the variables are normally distributed. There are 150 observations in all.

Correlation Analysis

Correlation analysis was carried out to detect any autocorrelation between internal audits and the financial performance of listed companies. Correlation coefficients are used to examine the required relationships to allow for the non-normality of the variable in question. In addition, correlation coefficients are intended to check for multicollinearity. The correlation matrix is shown in Table 2. The Table

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shows the Pearson correlation matrix for the variables as contained in the analysis. The correlation coefficients demonstrated a positive relationship between Return on Assets (ROA), Internal Control System (ICS) and Standard Operating Procedure (SOP).

Table 2: Pearson correlation matrix

	ROA	ICS	HR	SOP
ROA	1.00000			
ICS	0.015935	1.00000		
HR	0.064779	0.197705	1.00000	
SOP	0.098686	0.009631	0.065795	1.00000

Source: Author's computation (2023).

Panel Least Square Regression

Table 3 presents the results of the panel least square regression technique to analyze the relationship between internal audit and financial performance of listed companies.

Table 3: Panel Least Square Regression Result

Dependent Variable: ROA
Method: Panel Least Squares
Date: 05/21/23 Time: 06:02
Sample: 2017 2021
Periods included: 5
Cross-sections included: 30
Total panel (balanced) observations: 150

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ICS	0.784444	0.185662	4.225111	0.0003
HR	0.682540	0.241953	2.820957	0.0090
SOP	0.649524	0.286042	2.270726	0.0317
C	0.890159	0.270576	3.289870	0.0029

R-squared	0.513180	Mean dependent var	2.421275
Adjusted R-squared	0.507097	S.D. dependent var	8.052771
S.E. of regression	8.081297	Akaike info criterion	7.043286
Sum squared resid	9534.874	Schwarz criterion	7.123570
Log-likelihood	-524.2465	Hannan-Quinn criter.	7.075903
F-statistic	67.32185	Durbin-Watson stat	1.944372
Prob(F-statistic)	0.000003		

Source: Author's computation (2023).

Findings and Discussion of Findings

Table 3 reveals that internal audit has a significant positive impact on the financial performance of listed companies in Nigeria, with an F-statistic of 67.3219 and a Pro(F-statistic) value of 0.0000. This finding aligns with prior expectations and is consistent with the study conducted by Hendri et al. (2021), indicating a positive connection between the internal control system and the financial performance of these companies. Similarly, Human Resources (HR) and Standard Operating Procedures (SOP) also demonstrate positive relationships with financial

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performance. The simple regression model shows a good fit, with an R^2 value of 0.513, suggesting that internal audit (including ICS, HR, and SOP) accounts for 51% of the variation in financial performance, while the remaining 49% is attributed to other factors. Additionally, the Durbin-Watson statistic of 1.944, close to 2, indicates no autocorrelation in the residuals, supporting the null hypothesis of no serial correlation in the model.

The objectives outlined in the introduction are tested in this section. To address the first objective, which examines the impact of the internal control system (ICS) on the financial performance of listed companies in Nigeria; Panel Least Squares was applied to the data. The results show a significant positive relationship between ICS and financial performance, with a probability level (p-value) of 0.0003 and a t-statistic of 4.225 at a 5% significance level, aligning with theoretical expectations. This finding is consistent with previous research by Hendri et al. (2021) and Eniola et al. (2021). A probable reason for this positive relationship is that an effective internal control system helps prevent fraudulent activities such as larceny and skimming, which can otherwise erode revenues and inflate expenses. However, this is contingent on the integrity of the control environment.

The second objective focuses on the relationship between human resources (HR) and financial performance. The results indicate a significant positive relationship between HR and financial performance, with a p-value of 0.009 and a t-statistic of 2.82095 at a 5% significance level, leading to the rejection of the null hypothesis. This finding aligns with studies by Hendri et al. (2021), Akinjare et al. (2019), and Ezejiofor et al. (2017), but contradicts the research of Manukaji et al. (2019). A likely explanation for this result is that despite the prevalence of corruption in Nigeria, the recruitment of honest and competent employees positively influences financial performance.

The third objective investigates the relationship between standard operating procedures (SOP) and financial performance. The findings reveal a significant positive relationship between SOP and financial performance, with a p-value of 0.0317 and a t-statistic of 2.270726 at a 5% significance level. This supports the acceptance of the alternate hypothesis while rejecting the null hypothesis. This result is in line with studies by Hendri et al. (2021) and Kadir (2021). The likely reason is that when management implements sound SOPs, backed by strong leadership and appropriate consequences for violations, listed companies are better positioned to achieve strong financial performance.

Conclusions and Recommendations

This study examined the internal audit and financial performance of listed companies in Nigeria. The study concluded that the internal control system (ICS) has a significant positive relationship financial performance of listed companies in Nigeria at the probability level (p-value) of 0.0003 and t-statistic of 4.225 at a 5% significant level. This finding is in conformance with the existing research results of Hendri et al. (2021), and Eniola et al. (2021). We concluded that Human resources (HR) has a significant positive relationship with the financial performance of listed companies in Nigeria at the probability level (p-value) of 0.009 and t-statistic of 2.82095 at a 5% significant level. This is in agreement with the study carried out by Hendri et al. (2021), Akinjare et al. (2019), and Ezejiofor et al. (2017), but contradicts the research work conducted by Manukaji et al. (2019).

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This study also concluded that Standard Operating Procedure (SOP) has a significant positive relationship with the financial performance of listed companies in Nigeria at the probability level (p-value) of 0.0317 and t-statistic of 2.270726 at a 5% significant level. This is in agreement with the study carried out by Hendri et al. (2021), and Kadir (2021). The study recommends that sound internal audits should be put in place by listed companies in Nigeria because they strengthen internal control systems, human resources and standard operating procedures which positively influence financial performance. In addition, internal auditors should be encouraged to be independent. This can be achieved when the internal auditor reports directly to Corporate Governance (CG); policies are formed by CG and internal audit is handled by professional and experienced staff.

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