HUMAN RESOURCES ACCOUNTING AND FINANCIAL PERFORMANCE OF LISTED HEALTH CARE COMPANIES IN NIGERIA

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ABSTRACT

This study examines the relationship between Human Resource Accounting Divulgence (HRAD) and financial performance among listed healthcare firms in Nigeria. As human capital continues to gain prominence as a key driver of organizational success, understanding how its disclosure relates to firm performance has become a subject of growing academic interest. The study covers 11 healthcare firms listed on the Nigerian Exchange Group (NGX) over an 11-year period (2012–2022). Using a pooled panel regression approach, the research investigates the relationship between HRAD and financial performance indicators, viz; Return on Assets (ROA), Return on Equity (ROE), and Turnover (TUR), with leverage (LEV) serving as a control variable. The results indicate that HRAD maintains no statistically significant relationship with ROA, ROE, or turnover, suggesting that human resource disclosures are not yet embedded in performance-driven reporting within the healthcare sector. Conversely, leverage exhibited a positive and statistically significant relationship with HRAD, implying that more indebted firms may disclose HR information to signal transparency and responsible governance to stakeholders. These findings underscore the limited integration of human capital reporting in financial strategy among healthcare firms and highlight the need for regulatory intervention and standardized disclosure frameworks to enhance the relevance and comparability of HR information. This study offers context-specific insights and practical implications for improving corporate accountability and stakeholder engagement in emerging economies.

Keywords: Return on asset (ROA), Return of equity (ROE), Turnover (TUR) and Human Resource Accounting Divulgence.

1.0 INTRODUCTION

Human resources (HR) have emerged as a central pillar in modern organizations, particularly in knowledge-intensive sectors such as healthcare. Beyond being facilitators of operational processes, employees possess specialized knowledge, skills, and creative potential that drive strategic development, innovation, and sustained profitability. Recognizing this, contemporary accounting and management discourse increasingly advocates for the formal inclusion of human capital in corporate reporting frameworks (Odewusi, Adegbie & Nwaobia, 2025). Human Resource Accounting (HRA) seeks to provide a structured approach to quantifying and reporting investments in people. It captures the financial value of HR initiatives such as recruitment, employee development, welfare, and retention strategies, thereby supporting informed decision-making and accountability (Akinlo & Olayiwola, 2017). However, global accounting standards and regulatory frameworks have yet to reach a consensus on the formal recognition and disclosure of HR information. As a result, most firms especially in developing economies like Nigeria, engage in voluntary HR accounting divulgence (HRAD), which varies widely in scope and depth. Despite limited regulatory backing, several studies (e.g. Syed, 2009; Iliemena, Goodluck & Amahalu, 2023) highlight the strategic use of HR disclosures in enhancing transparency, stakeholder confidence, and legitimacy.

In healthcare, a sector deeply dependent on professional competencies and technical expertise, the relevance of HRAD is particularly pronounced. The quality of healthcare service delivery is intrinsically linked to the qualifications, motivation, and retention of health personnel. Therefore, transparent reporting on human capital investments may serve not only as an internal performance tool but also as a signal to external stakeholders, including regulators, investors, and patients. While theoretical support for HRA is growing, empirical evidence on its relationship with financial performance remains inconclusive and fragmented. Several studies (e.g., Micah, Ofurum & Ihendinihu, 2012; Jena et al., 2022; Adebawojo et al., 2015) report a positive association between HRAD and profitability metrics such as Return on Assets (ROA) and Return on Equity (ROE), suggesting that firms strategically disclose HR information to reinforce strong financial performance. Conversely, other studies (e.g., Ofurum & Adeola, 2018; Ojokuku & Oladejo, 2017) find no significant relationship, often citing variations in industry structure, regulatory context, and firm characteristics as potential moderators. Importantly, most prior studies aggregate firms across diverse sectors or focus primarily on banking and manufacturing industries, thereby overlooking the healthcare sector's unique human capital intensity. Given that healthcare delivery fundamentally relies on

specialized professionals and continuous knowledge upgrading, it is surprising that little empirical research has isolated this sector in analyzing the HRAD–performance nexus. Moreover, turnover, a core indicator of revenue-generating capacity has been underexplored in relation to HRAD, even though financial health and market competitiveness may influence disclosure behaviors. In addition to sectoral neglect, several empirical studies suffer from methodological weaknesses, such as short study periods, cross-sectional designs, and exclusion of relevant control variables like leverage. These limitations impede the generalizability of findings and highlight the need for robust, longitudinal, and sector-specific analysis.

The under-reporting of HR investments in Nigerian healthcare firms raises concerns about accountability and long-term sustainability. As the country grapples with brain drain, skill shortages, and public mistrust in health institutions, the strategic disclosure of human capital metrics could serve as a tool for restoring stakeholder confidence, improving access to investment, and enhancing institutional legitimacy. In practice, many healthcare firms still treat HR expenditures as mere operational costs, obscuring the long-term value these resources contribute.

This study addresses the twin gaps identified in the empirical literature: (1) the lack of consensus on the relationship between HRAD and firm financial performance, and (2) the absence of healthcare sector-specific analysis in the Nigerian context. By focusing on ROA, ROE, and turnover as financial performance proxies, and incorporating leverage as a control variable, this study provides a holistic and statistically robust assessment of how HRAD practices relate to financial outcomes in a human capital-intensive industry. Hence, the relevance of this study lies in its potential to inform policy, guide managerial decisions, and stimulate regulatory action toward institutionalizing human capital disclosures in Nigeria's healthcare sector and similar emerging market contexts by investigating the relationship between HRAD and financial performance of listed healthcare institutions in Nigeria. it specifically sought to determine the relationship between divulgence of HR accounting information and ROA, ROE and Turnover. In line, the remainder of this paper addresses the literature review, methodology, analysis and discussions, and, conclusion and recommendations.

2.0 LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Financial Performance

Organizational performance remains a critical indicator of corporate success or failure and continues to attract significant scholarly attention. Despite the volume of research on this subject, academics have encountered persistent challenges in formulating a universally accepted framework for understanding performance-related issues in business contexts. Financial performance, in particular, plays a central role in shaping an organization's trajectory, influencing both its growth potential and long-term sustainability. It reflects the extent to which a firm has achieved financial progress over time and is often linked to its capacity to generate profit from its investments (Alao, Oyegokeo & Olalere, 2023). Profitability, broadly defined, refers to an organization's ability to earn adequate returns on its invested resources. To capture this multifaceted concept, various metrics have been employed in the literature, including productivity, net profit margin, gross profit margin, return on assets (ROA), return on equity (ROE), and return on capital employed. Additionally, non-financial indicators such as customer satisfaction and employee engagement have been recognized as complementary dimensions of performance evaluation. As Aliu (2010) notes, there is no universally applicable approach to measuring firm performance; rather, the choice of metrics depends on the context and purpose of the assessment.

In this study, return on assets (ROA), return on equity (ROE), and turnover are adopted as proxies for measuring firm financial performance. These metrics collectively enable a comprehensive assessment of the efficiency, profitability, and revenue-generating capacity of the firms under investigation.

2.1.1.1 Return on Assets

Return on Assets (ROA) is widely recognized in academic and professional literature as a robust measure of corporate profitability and asset utilization efficiency. It reflects the company's ability to convert its total assets into pre-tax earnings, thereby serving as an indicator of managerial effectiveness in resource allocation (Mukolo, Jeroh & Ideh, 2023). ROA is particularly valuable in evaluating the operational efficiency of firms, as it integrates

both income generation and asset management into a single performance metric. Numerous empirical studies have employed ROA as a key indicator of firm performance. For instance, Alao, Oyegokeo and Olalere (2023), and Aggarwal (2021), utilized ROA to examine the impact of corporate governance on firm profitability, while Iliemena, Amedu and Uagbale-Ekatah (2023) applied it in their analysis of sustainability disclosure and financial performance in emerging markets. Similarly, Karimi (2012) adopted ROA to assess the influence of ownership structure on firm value in the MENA region. These studies affirm the reliability and applicability of ROA as a performance metric across diverse sectors and geographical contexts.

The consistent use of ROA in empirical research underscores its relevance as a standardized and comparable indicator, particularly in studies examining the relationship between managerial decisions, external interventions, and firm outcomes.

2.1.1.2 Return on Equity

Return on Equity (ROE) is a key financial performance indicator that measures the profitability of a company relative to shareholders' equity. It is calculated as the net profit after taxes divided by the total equity capital of the firm. ROE provides insight into how efficiently a company utilizes its shareholders' funds to generate earnings. A higher ROE suggests superior financial performance and indicates that the firm is effectively generating value from its equity base, which generally signals long-term profitability and stability. According to Vazakidis, Antoniosa, and Despina (2013), the expertise and competence of a company's management are central to the positive relationship between corporate transparency, particularly in social and human resource reporting, and profitability. Organizations led by financially savvy and socially responsible management teams are more inclined to voluntarily disclose non-financial information, including human resource practices. Such disclosures are strategically used to attract and retain top-tier talent, enhance investor confidence, and affirm corporate legitimacy. Firms with high ROE are often motivated to provide more detailed disclosures related to human capital, as a way of reinforcing their market reputation and justifying superior financial outcomes. This behavior can also serve to reduce agency costs, mitigate negative market perceptions, and preempt regulatory scrutiny. In this regard, voluntary HR disclosures function as a signalling tool, helping firms to communicate not only profitability but also responsible management and sustainable practices. Furthermore, as ROE remains a primary metric evaluated by investors, analysts, and regulatory institutions to gauge corporate performance, firms with strong ROE performance may be more inclined to utilize their annual reports to

disclose comprehensive information on HR accounting. By doing so, these companies project a favorable image aligned with both financial success and corporate transparency.

2.1.1.3 Turnover

Turnover, commonly defined as an entity's total sales or revenue within a given accounting period, serves as a fundamental indicator of operational activity and financial viability. According to Iliemena, Goodluck and Amahalu (2023), an increase in turnover often leads to short-term improvements in operational outcomes, particularly when coupled with efficient cost management. Turnover significantly influences the computation of both gross profit and net profit, thereby playing a central role in evaluating an organization's financial performance. High turnover figures, especially when sustained over time, are typically indicative of market competitiveness, customer retention, and effective resource utilization. Firms with strong sales performance and well-managed operational costs are more likely to experience enhanced financial success. In such contexts, the need to maintain investor confidence and public legitimacy may drive firms to voluntarily disclose information related to their human capital, an essential yet intangible resource.

Human Resource Accounting Divulgence (HRAD), therefore, can be seen as a strategic communication mechanism employed by firms with strong turnover performance to reinforce positive stakeholder perceptions. As increased turnover attracts greater scrutiny from investors and regulators, firms may be incentivized to disclose human capital investments, such as training, recruitment, and workforce development as part of their corporate accountability and value proposition.

Empirical studies by Hossain, *et al.* (2010) and Islam, Alam and Islam (2023) have supported the use of turnover as a proxy for firm performance in analyzing disclosure behavior, highlighting its relevance in explaining variations in voluntary reporting practices, including HRAD.

2.1. 2. **Human Resource Accounting**

The concept of Human Resource (HR) was first introduced by Nobel Laureate Theodore W. Schultz in his seminal article titled "Investment in Human Capital," published in the American Economic Review in 1961. Schultz conceptualized HR as a key component of economic and organizational development. Human resources encompass an organization's workforce, including their efforts, capabilities, talents, and knowledge, which can be harnessed to produce

goods and render services of value (Lokanath & Richa, 2017; Syed, 2009). HR, often referred to as human capital, represents the collective expertise and competencies embedded within an organization's personnel and the extent to which these can be leveraged to address complex challenges (Bontis, 2001). The human element remains an indispensable aspect of any production system, encompassing both highly skilled and less formally trained individuals (Ofurum & Adeola, 2018; Ogunbiyi-Davies, Alao, Aremu & Olalere, 2023). In today's knowledge-driven economy, organizations increasingly recognize human resources as a critical source of competitive advantage. This is particularly evident in the private sector, where firms display significant diversity and have long acknowledged the strategic value of investing in HR for sustainable growth and operational success.

In contrast to traditional accounting approaches, human resource accounting (HRA) seeks to identify, quantify, and communicate an organization's investment in its human capital. Enofe et al. (2013) and Jena, *et al.* (2022) define HRA as the systematic identification and measurement of data related to human resources, which are then disseminated to relevant stakeholders for decision-making purposes. Okpala and Chidi (2010) further assert that HRA involves the valuation of an organization's human capital and posit that a robust HRA system could enhance both managerial decision-making and investor confidence. Despite its growing relevance, globally accepted criteria for HR disclosure remain inadequate within prevailing legal and regulatory frameworks. For instance, the European Union's Fourth Council Directive of 1978 establishes the minimum content required in corporate financial statements, mandating that employee-related disclosures should include salaries, wages, and social security costs. However, neither the United States' Financial Accounting Standards Board (FASB) nor the International Financial Reporting Standards (IFRS) provides explicit guidance on the comprehensive disclosure of HR information. Existing IFRS provisions, such as IAS 19 on employee benefits and IAS 38 on intangible assets, still adhere to conventional accounting treatments, whereby investments in human assets are expensed rather than capitalized.

In Nigeria, the absence of mandatory regulations governing HR disclosures allows firms to voluntarily determine the format, depth, and scope of information included in their annual reports. Nevertheless, various scholars, such as Islam, Alam and Islam (2023), Aggarwal (2021), and Syed (2009), have made efforts to develop frameworks for assessing the extent and quality of HR disclosures, despite their voluntary nature. Given the above, this study is therefore set to test the following null hypotheses;

Ho1: There is no significant relationship between divulgence of HR accounting information and ROA of publicly traded Nigerian healthcare companies.

Ho2: Divulgence of HR accounting information by publicly traded Nigerian healthcare companies has no significant relationship with ROE.

Ho3: There is no significant relationship between divulgence of HR accounting information and the Turnover of publicly traded Nigerian healthcare companies

2.2. Leverage as a control variable

Leverage is operationalized as the ratio of total debt to the book value of total assets. According to Berger and Bonaccorsi Di Patti (2006), increased debt levels elevate agency costs due to the inherent divergence between the interests of debt holders and equity holders. While equity holders may favor riskier ventures to maximize returns, debt holders typically prefer more conservative strategies to safeguard their investments. This misalignment necessitates enhanced transparency to align stakeholder interests and mitigate agency conflicts.

Disclosure of relevant corporate information, particularly concerning intangible assets such as human resources, has been identified as a mechanism for reducing agency costs. Enhanced voluntary disclosure practices can signal managerial accountability and strengthen stakeholder trust, particularly among creditors. As such, firms that provide more extensive information regarding their human capital are likely to foster greater confidence among lenders, thereby potentially improving their access to credit facilities.

Empirical findings on the relationship between leverage and voluntary disclosure remain inconclusive. Some studies (Li & Zhao, 2011; Broberg et al., 2010; Aggarwal & Verma, 2020) report a positive association, suggesting that firms with higher debt levels tend to disclose more information to appease creditors and reduce perceived risk. Conversely, other scholars (Aggarwal, 2021; Iliemena, Goodluck & Amahalu, 2023; Whiting & Woodcock, 2011) find no statistically significant relationship between leverage and the extent of voluntary disclosure, indicating that other contextual or firm-specific factors may moderate this association.

2.3 Empirical Review

A number of empirical studies have investigated the relationship between human resource accounting divulgence (HRAD) and financial performance, albeit with mixed results.

Odewusi, Adegbie, and Nwaobia (2025) examined the role of corporate governance in enhancing firm value through human resource accounting within Nigeria's manufacturing sector. Analyzing data from 28 manufacturing firms listed on the Nigerian Exchange Group between 2009 and 2023, they employed multiple regression analysis. The study concluded that both human resource accounting and corporate governance significantly enhance firm value. Nonetheless, the research is confined to the manufacturing sector, and its findings may not be directly applicable to other sectors with different operational dynamics. Oyaide and Aminu (2024) explored the impact of human resource accounting on the financial performance of deposit money banks in Nigeria. Focusing on staff remuneration, training, and healthcare costs, the study utilized panel data analysis over the period 2018 to 2022. The findings indicated that while staff training costs had a significant positive effect on earnings per share, staff remuneration and healthcare costs did not have a significant impact. A limitation of this study is its exclusive focus on the banking sector, which may not capture the nuances of human resource accounting in other industries. Iliemena, Goodluck, and Amahalu (2023) investigated the relationship between human capital efficiency and financial performance among listed commercial banks in Nigeria. Utilizing an ex-post facto research design and analyzing data from 2010 to 2018, they employed Pearson correlation and ordinary least squares regression techniques. The study found a positive and statistically significant relationship between human capital efficiency and financial performance, suggesting that investments in human resources contribute to improved bank performance. However, the study's focus solely on the banking sector limits the generalizability of its findings to other industries, such as healthcare, where human capital dynamics may differ. Syed (2009) examined the HRAD practices of publicly listed companies in Bangladesh and found that corporate attributes such as size, industry type, and profitability had a significant influence on HRAD. However, the study failed to account for firm age as a potential explanatory variable, which limits the comprehensiveness of the model used. Moreover, its geographical focus on Bangladesh restricts the applicability of its findings to other developing economies such as Nigeria.Micah, Ofurum, and Ihendinihu (2012) analyzed Nigerian firms across various sectors and discovered a significant positive relationship between ROE, ROA, and HRAD. While this study provides valuable insights into the Nigerian context, its cross-sectoral nature lacks industry-specific nuance. The healthcare

sector, which is human-capital intensive, was not examined in isolation, creating a gap in sectoral understanding. Islam, Kamruzzaman, and Redwanuzzaman (2013) explored the conceptual and regulatory challenges of HR accounting in Bangladesh, focusing on recognition techniques and legislative constraints. Although this study offered a robust theoretical analysis, its exploratory design and absence of empirical testing render it insufficient for drawing definitive conclusions about the HRAD-performance nexus. Vazakidis, Antoniosa, and Despina (2013) investigated Greek firms and concluded that GRI compliance influenced HRAD positively. Nonetheless, they found no relationship between company size, profitability, or industry and HRAD. The methodological limitation lies in the narrow focus on firms adhering to the GRI framework, which may not represent the broader corporate population.

In a Nigerian context, Enofe et al. (2013) established a positive correlation between firm financial performance and HRAD. Despite its contributions, the study aggregated all industries, ignoring sector-specific variables, such as the level of human capital dependence, which could influence disclosure behaviours. Adebawojo, Enyi, and Adebawo (2015) focused on quoted banks in Nigeria and found that human asset accounting had a significant impact on corporate performance. Yet, the banking sector's regulatory environment differs markedly from healthcare, limiting the generalizability of the findings. Ojokuku and Oladejo (2017) evaluated the impact of firm characteristics on HRAD in Nigerian manufacturing firms. They observed that turnover did not significantly affect HRAD, though market size and workforce strength did. However, the study did not consider financial performance indicators such as ROA or ROE, which are crucial in assessing firm profitability. Ofurum and Adeola (2018) studied service firms in Nigeria and reported no significant association between HRAD and profitability. While their findings challenge earlier conclusions, they suffer from limited sample representation and do not account for control variables like leverage or firm age. Jena et al. (2022) focused on small-scale industries in Odisha, India, and affirmed a significant relationship between HRAD and financial performance. However, the context of small-scale industries differs significantly from publicly listed firms, especially in regulatory and disclosure requirements.

Surinder, Venkat, and Monica (2014) found that HR accounting practices were poorly disclosed among Indian firms, with only 5% of companies including them in their annual reports. Although informative, the use of content analysis without correlation to financial performance weakens the explanatory power of the study. Lokanath and Richa (2017)

examined Indian IT and manufacturing firms and found that market capitalization and promoter stake influenced HRAD, whereas turnover, profitability, and firm age did not. Although statistically rigorous, the study did not test the moderating role of industry type or control for leverage, a known agency-related variable. Pham, Chu, Hoang and Lai (2022) found that HRAD in Czech companies was influenced by firm size and listing status but not by industry. While useful, this finding overlooks financial performance as a predictor variable, thereby leaving unanswered questions about economic determinants of HR disclosures.

2.4   Gaps in Literature

The review of extant literature reveals two prominent gaps. First, there is no consensus on the relationship between financial performance metrics (such as ROA, ROE, and turnover) and HR accounting divulgence, with studies producing contradictory findings across regions and sectors. Second, no existing study focuses specifically on the Nigerian healthcare sector, which is highly dependent on human capital and thus a critical context for examining HRAD. It is also worthy of note that most of these extant studies are out of date.

This study contributes to the literature by addressing the gaps. It isolates listed healthcare firms in Nigeria; an industry that is particularly reliant on skilled human resources, and explores the impact of financial performance metrics (ROA, ROE, turnover) and leverage on the extent of HR accounting divulgence over a longitudinal period (2012–2023). By employing a pooled panel regression approach and sector-specific focus, this study offers a nuanced understanding that enriches both theoretical and practical perspectives on HRAD in emerging economies. .

2.5 Theoretical Review

Resource Dependence/Resource-Based Theory

The Resource Dependence Theory (RDT), as developed by Pfeffer and Salancik (1978), posits that organizations are not entirely autonomous but depend on external resources for survival and growth. In response to such dependencies, particularly during periods of resource scarcity, firms seek to secure critical inputs, such as skilled human capital, either through internal investment or external collaboration. A key proposition of this theory is that organizations engage in strategic actions, including information disclosure, to manage and reduce external uncertainty and dependence (Pfeffer & Salancik, 1978). Complementarily, the Resource-Based View (RBV) of the firm, introduced by Penrose (1959) and expanded by Porter (1985), underscores that sustainable competitive advantage is achieved through the possession and

strategic deployment of valuable, rare, inimitable, and non-substitutable (VRIN) resources. According to this view, human capital, especially in knowledge-intensive industries such as healthcare, is a core strategic resource.

In the context of human resource accounting divulgence (HRAD), both RDT and RBV offer a valuable lens to understand why firms voluntarily disclose human capital information. Organizations that depend on external stakeholders for legitimacy, investment, or credit facilities are incentivized to provide transparent disclosures of their intangible assets, such as human resources to signal capability, stability, and future earning potential. As such, HRAD can serve as a strategic disclosure mechanism to reduce information asymmetry and secure critical resources.

The application of Resource Dependence and Resource-Based Theories is particularly relevant to this study, which investigates the relationship between HRAD and financial performance among listed healthcare firms in Nigeria. As a highly specialized, human capital-intensive sector, healthcare organizations rely extensively on their workforce for value creation, innovation, and service delivery. In line with RBV, the quality, expertise, and retention of personnel constitute strategic assets that can enhance financial outcomes. Accordingly, firms that make substantial investments in human capital may choose to disclose such efforts to signal strength, attract investors, and differentiate themselves from competitors. From the RDT perspective, Nigerian healthcare firms may also be motivated to disclose HR information to mitigate perceived risks and uncertainties among external stakeholders, particularly in a developing economy where corporate transparency is often limited. Voluntary HR disclosures, therefore, function not only as internal performance indicators but also as tools for resource mobilization and legitimacy building.

In summary, this study extends the application of RDT and RBV by empirically examining how HRAD, as a reflection of strategic human capital deployment and dependency management, relates to traditional financial performance measures; ROA, ROE, and turnover, in an underexplored yet crucial sector of the Nigerian economy.

3.0 METHODOLOGY

This study adopted an *ex-post facto* research design to investigate the effect of Human Resource Accounting Divulgence (HRAD) on the financial performance of listed healthcare firms in Nigeria. The design is appropriate for studies relying on historical data, as it allows for the analysis of cause-and-effect relationships without manipulation of variables.

The entire population of 11 healthcare firms listed on the Nigerian Exchange Group (NGX) as of December 31, 2022, was used in the study. A census approach was employed to ensure full sectoral representation and avoid sampling bias. Secondary data were obtained from the audited annual financial statements of these firms (also adopted as sample due to its manageability) over an 11-year period (2012–2022). The independent variable, HRAD, was measured using a disclosure index developed through content analysis of the firms' annual reports. The dependent variables; Return on Assets (ROA), Return on Equity (ROE), and Turnover (TUR), were used to represent financial performance. Leverage (LEV) was included as a control variable to account for capital structure.

Data analysis was conducted using pooled panel regression with the aid of EViews 9.0 software. This method integrates time-series and cross-sectional data to assess the impact of HRAD on financial performance over time. Diagnostic tests, including correlation analysis (to check for multicollinearity), Durbin-Watson statistic (to test for autocorrelation), and R-squared statistics (to assess model fit), were used to validate the robustness of the regression model. A variable is considered statistically significant if its p-value is less than or equal to the 5% level of significance.

Table 3.1: Operationalization of Variables

			Measurement	Author	Apriori
Independent Variable	HR Accounting Divulgence	HRAD	$\text{HRADI} = \dfrac{\text{Total score of individual company} \times 100/1}{\text{Maximum possible score obtainable}}$	Syed, 2009	

Dependent Variables	Return on Asset	ROA	Profit before tax divided by total assets	Hariono, Orbaningsih and Lisa (2023)	+
	ROE	ROE	Proft after tax/ Shareholders equity	Ogunbiyi-Davies, Alao, Aremu and Olalere (2023)	+
	Turnover	TUR	Total sales or revenue of the firm	Gustavo & Luiz, 2016	+
Control Variable	Leverage	LEV	Dividing total debt by total assets' book value.	Pham, Chu, Hoang and Lai (2022)	+

Sources: Researcher's Computation (2025)

Model Specification

The study adapts the model of: Micah, Ofurum, and Ihendinihu (2012).

$$HRAD = f(ROA, ROE, TUR, LEV) \qquad (1)$$

Expressing equation (1) in explicit form, we have:

$$HRAD_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 ROE_{it} + \beta_3 TUR_{it} + \beta_4 LEV_{it} + \varepsilon_{it} \qquad (2)$$

$b1 > 0; b2 > 0;$

Where: $HRADI_{it}$ = HR Accounting Divulgence, ROA = Return on Asset, ROE = Return On Equity, TUR =Turnover, LEV = Leverage, B_i = Coefficients to be estimated, Subscripts i and t denote firm and time respectively, ε_{it} is the error term, accounting for unobserved heterogeneity over time and across firms.

4.0 PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

4.2 Presentation and Analysis of Data

Tables 4.1, 4.2, 4.3 presents the descriptive statistics, correlation and regression test results for the variables used in the study: Human Resource Accounting Disclosure (HRAD), Return on Assets (ROA), Return on Equity (ROE), Asset Turnover (TUR), and Leverage (LEV).

Table 4.1: Descriptive Statistics of the variables used in the study

	HRAD	ROA	ROE	TUR	LEV
Mean	0.7206	-3.3814	5.4219	3.18E+08	0.2817
Median	0.7333	0.0436	0.0492	2942890.	0.2436
Maximum	0.8667	0.2730	1214.240	1.19E+10	0.8021
Minimum	0.5333	-160.65	-329.73	23006.00	2.64E-05
Std. Dev.	0.1209	22.1387	141.0362	1.36E+09	0.2017
Skewness	-0.1777	-6.3919	7.4105	7.7975	0.4495
Kurtosis	1.6301	42.4612	66.2717	66.8516	2.1861

Source: Researchers' Computation, 2025

The table above summarizes the central tendency, dispersion, and distributional characteristics of the dataset, providing insights into the overall data structure before further econometric analysis.

Table 4.1 shows the variability in ROA with a standard deviation of 22.1387 and a mean of 0.7206 in Table 4.1, which presents the descriptive statistics for the parameters. When it comes to return on equity, the average is 5.4219 and the standard deviation is 141.0362. The range of possible values is from -329.73 to 1214.240. According to the standard deviation, the ROE is not uniformly distributed. For the second independent variable, turnover (TUR), the mean value was 3.18E+08 and the standard deviation was 1.36E+09. Neither of these numbers is very high, suggesting that turnover did not deviate much from the mean within the time frame being considered.

A further inspection of the control variable leverage reveals that it clusters around the sample mean, with a standard deviation of 0.2017 and a minimum of 2.64E-05 and a maximum of 0.8021.

4.2 Pearson Correlation Matrix

4.2: Correlation Analysis

	HRAD	ROA	ROE	TUR	LEV
HRAD	1				
ROA	0.1537	1			
ROE	-0.0374	0.3133			
TUR	-0.1078	-0.0180	0.0111	1	
LEV	-0.2238	0.17709	-0.0642	-0.0237	1

Source: Eviews 9.0 (2025)

Table 4.2 presents the Pearson correlation coefficients between Human Resource Accounting Disclosure (HRAD) and the financial performance indicators: Return on Assets (ROA), Return on Equity (ROE), Turnover (TUR), and Leverage (LEV).

The results show a positive but weak association between HRAD and ROA (r = 0.1537), suggesting that firms disclosing more HR information tend to utilize their assets more effectively. In contrast, HRAD is negatively correlated with ROE (r = -0.0374), TUR (r = -0.1078), and LEV (r = -0.2238), indicating that higher equity returns, turnover, and leverage may not necessarily encourage greater HR disclosure. None of the correlation values exceed 0.90, confirming the absence of multicollinearity. Thus, all variables are suitable for inclusion in the regression analysis. While these correlations indicate potential relationships, they do not establish causality, thus, necessitating further analysis through regression modeling.

4.3. Regression Results

Table 4.3: Regression Results for the test of hypotheses

Variable	Coefficient	Std. Error	t-Statistic	p-Value
ROA	-0.004131	0.002335	-1.769	0.0808
ROE	0.000380	0.000370	1.026	0.3078
TUR	3.59×10^{-11}	3.68×10^{-11}	0.977	0.3317
LEV	1.600135	0.146069	10.955	0.0000***

Source: Eviews, 9.0 (2025)

Table 4.3 summarizes the regression model used to evaluate the effect of Human Resource Accounting Disclosure (HRAD) on selected financial performance indicators of listed healthcare firms in Nigeria.

The model yields an R^2 value of 0.69, indicating that approximately 69% of the variation in financial performance is explained by changes in HRAD. The adjusted R^2 value of 0.56 further confirms that, after adjusting for degrees of freedom, about 56% of the systematic variation in financial performance can be attributed to HRAD. Additionally, the Durbin-Watson statistic of 1.72 suggests no evidence of autocorrelation in the residuals, reinforcing the reliability of the model for empirical analysis and policy inference.

Individual Variable Interpretation

Return on Assets (ROA) shows a negative and statistically insignificant relationship with HRAD (β = -0.0041, p = 0.0808). This suggests that increased HR disclosure does not significantly influence asset returns in Nigerian healthcare firms. Therefore, the null hypothesis stating no significant relationship between HRAD and ROA is accepted. Return on Equity (ROE) has a positive but insignificant coefficient (β = 0.0004, p = 0.3078), indicating that HRAD is not a significant driver of equity returns. This supports the hypothesis that firms do not necessarily disclose HR accounting information to improve shareholder returns. Turnover (TUR) is also positively but insignificantly related to HRAD (β = 3.59E-11, p = 0.3317), suggesting that revenue performance is not a major determinant of HR disclosure practices among the sampled firms. Hence, the null hypothesis of no significant relationship is also accepted.

4.4 Discussion of Findings

This study examined the extent to which financial performance indicators influence Human Resource Accounting Divulgence (HRAD) among listed healthcare firms in Nigeria. Specifically, the study tested three core hypotheses to determine whether Return on Assets (ROA), Return on Equity (ROE), and Turnover (TUR) significantly explain variations in HRAD practices. Leverage (LEV) was included as a control variable to account for capital structure influences on disclosure behavior. Findings from the regression analysis revealed a

negative and statistically insignificant relationship between ROA and HRAD (β = -0.0041, p = 0.0808). Although the a priori expectation, as stated in Chapter Three, was for a positive association, the empirical results suggest otherwise. This implies that firms' asset profitability does not significantly influence their decision to disclose HR-related information. These findings align with Pham et al. (2022), who also reported a non-significant correlation between ROA and HR disclosure practices. However, this contrasts with earlier studies such as Hariono et al. (2023), Al-Mamun (2009), Odewusi, *et a*l (2025) and Ogunbiyi-Davies et al. (2023), which documented a positive and significant relationship. The divergence could be attributed to differences in industry context, firm-specific disclosure incentives, and methodological approaches. The analysis further showed a positive but statistically insignificant relationship between ROE and HRAD (β = 0.0004, p = 0.3078). This outcome suggests that shareholder profitability does not have a material impact on HR disclosure practices in the healthcare sector. Consequently, the null hypothesis was accepted, indicating no significant association. These results are consistent with Iliemena, Goodluck and Amahalu (2023), who found that HR accounting disclosure did not significantly influence ROE among Nigerian deposit money banks. However, they diverge from the findings of Micah et al. (2012) and Ogunbiyi-Davies et al. (2023), who reported a significant positive effect of HR disclosure on equity-based performance metrics. The discrepancy highlights the possibility that HR disclosure decisions may be driven more by strategic or compliance factors than by financial outcomes. For the third hypothesis, turnover was positively associated with HRAD, though the relationship was statistically insignificant (β = 3.59E-11, p = 0.3317). While the direction of the relationship supports the a priori expectation of a positive link on the basis that revenue-generating firms may disclose more to reinforce corporate transparency the lack of statistical significance suggests that turnover is not a key determinant of HR disclosure in the sampled firms. This aligns with the empirical findings of Lokanath and Richa (2017) and Ojokuku and Oladejo (2017) but contradicts those of Oyaide and Aminu (2024) and Ullah et al. (2014), who found stronger associations between turnover and HR disclosure. Interestingly, the control variable leverage (LEV) demonstrated a positive and statistically significant effect on HRAD. This suggests that firms with higher debt ratios are more likely to disclose human capital information, potentially as a means of signaling accountability and good governance to creditors and external stakeholders. Such behavior could be interpreted as a proactive strategy to enhance trust and legitimacy in the face of financial obligations. However, this result stands in contrast to the findings of Pham et al. (2022), who reported no significant relationship between leverage and HR disclosure.

Overall, the findings suggest that among Nigerian listed healthcare firms, traditional financial performance indicators, namely; ROA, ROE, and turnover do not significantly influence the extent of HR accounting disclosure. Instead, capital structure, as proxied by leverage, appears to be a more relevant determinant. These results underscore the possibility that HR disclosure practices in the healthcare sector may be driven by external legitimacy concerns or regulatory signaling rather than by internal financial performance metrics. This highlights the need for policy reforms and sector-specific disclosure guidelines to institutionalize human capital reporting as a strategic imperative, rather than a discretionary practice.

5.0 Conclusion and Recommendations

This study examined the rapport betwist Human Resource Accounting Divulgence (HRAD) and financial performance among listed healthcare firms in Nigeria. The findings revealed that HRAD had no statistically significant relationship with return on assets, return on equity, and turnover, while leverage was found to be a significant predictor in the sampled Nigerian healthcare firms. This suggests that HR disclosure practices in the healthcare sector may be driven more by capital structure considerations than profitability or revenue performance. The results imply that HR disclosure is not yet fully integrated into performance-driven reporting strategies within Nigeria's healthcare industry. This raises concerns about the strategic value placed on human capital by firms and highlights the need for regulatory guidance to standardize HR reporting practices. Emanating from this above, this study recommends the following; Regulatory bodies such as the Financial Reporting Council of Nigeria (FRCN) should develop guidelines that mandate sector-specific human resource disclosures to enhance transparency and comparability, Healthcare firms should align HR disclosure with corporate performance frameworks, emphasizing how human capital contributes to long-term value creation, Firms with higher leverage should use HR disclosures as a strategic tool to signal responsible governance and commitment to workforce development, thus improving investor and creditor confidence.

REFERENCES

Adebawojo, O. A., Enyi, P. E., & Adebawo, O. O. (2015). Human asset accounting and corporate performance. *American International Journal of Contemporary Research, 5*(1), 45–52.

Aggarwal, K. (2021). Relationship between company characteristics and HR divulgence level: Evidence from Indian public sector companies. *Management and Labour Studies, 46*(4), 399–421. https://doi.org/10.1177/0258042X211011324

Aggarwal, K., & Verma, A. (2020). Effect of company characteristics on human resource divulgence index: Empirical evidence from Indian corporates. *Management and Labour Studies, 45*(1), 85–117. https://doi.org/10.1177/0258042X19890246

Akinlo, O., & Olayiwola, J. (2017). Human capital reporting and corporate earnings: Evidence from Nigeria. *The International Journal of Business and Finance Research, 11*(1), 77–85.

Alao, M., Oyegokeo, K. S., & Olalere, M. (2023). Human resource accounting and organisation performance of deposit money banks listed in Nigeria. *International Journal of Management Studies and Social Science Research, 5*(1), 204–216. https://doi.org/10.56293/IJ

Aliu, N. O. (2010). *Effect of capital structure on the performance of quoted manufacturing firms in Nigeria* [Master's thesis, Ahmadu Bello University Zaria]. KUBANNI Institutional Repository. https://kubanni-backend.abu.edu.ng/server/api/core/bitstreams/3dac9746-315e-43ff-b49c-4919ab89a430/content

Al-Mamun, S. A. (2009). HR accounting divulgence of Bangladeshi companies and its association with corporate characteristics. *BRAC University Journal, 6*(1), 35–43.

Berger, A. N., & Bonaccorsi Di Patti, E. (2006). Capital structure and firm performance: A new approach to testing agency theory and an application to the banking industry. *Journal of Banking & Finance, 30*(4), 1065–1102. https://doi.org/10.1016/j.jbankfin.2005.05.015

Broberg, P., Tagesson, T., & Collin, S. O. (2010). What explains variation in voluntary di-vulgence? A study of the annual reports of corporations listed on the Stockholm Stock Exchange. *Journal of Management & Governance, 14*(4), 351–377. https://doi.org/10.1007/s10997-009-9104-y

Ekundayo, O. U., & Odhigu, F. (2016). Determinants of human capital accounting in Nigeria. *Igbinedion University Journal of Accounting, 1*(1), 104.

Enofe, A. O., Mgbame, C., Otuya, S., & Ovie, C. (2013). Human resource accounting divulgences in Nigeria quoted firms. *Research Journal of Finance and Accounting, 4*(13), 7–12.

Gustavo, H. C. S., & Luiz, A. F. G. (2016). Financial performance and information divulgence on HR: An analysis of companies in the IBrX – 100. *Journal of Education and Research in Accounting, 10*(1), 88–102.

Hariono, J., Orbaningsih, D., & Oyong, L. (2023). Determinants of HR accounting divulgence and their impact on financial performance as intervening variables. *Journal of Economics, Finance and Management Studies, 6*(2), 1022–1025.

Hossain, M. S. (2010). *Financial reporting practices of listed pharmaceuticals companies in Bangladesh* [Unpublished doctoral dissertation]. National University, Bangladesh.

Iliemena, R. O., Goodluck, H., & Amahalu, N. N. (2023). Human capital efficiency as a paradigm for improved bank performance in Nigeria. *Journal of Global Accounting, 6*(3), 46–57. https://journals.unizik.edu.ng/joga/article/view/2342

Islam, A., Kamruzzaman, M., & Redwanuzzaman, M. (2013). Human resource accounting: Recognition and divulgence of accounting methods and techniques. *Global Journal of Management and Business Research: Accounting and Auditing, 13*(3), 1–10.

Islam, M. A., Alam, M. M., & Islam, H. (2023). Human resource accounting divulgence (HRAD) practices: Evidence from the banking industry in Bangladesh. *Journal of Ekonomi, 9*(1), 52–59. https://doi.org/10.58251/ekonomi.1307975

Jena, B. M., Maharana, N., Chaudhury, S. K., & Mohanty, S. (2022). Human resource accounting and financial performance of select small-scale industries of Odisha: An empirical analysis. *Orissa Journal of Commerce, 43*(1), 80–92. https://doi.org/10.54063/ojc.2022.v43i01.07

Karimi, J. M. (2012). *Relationship between intellectual capital accounting and business performance in the pharmaceutical firms in Kenya* [Unpublished doctoral dissertation]. Jomo Kenyatta University of Agriculture and Technology.

Li, H., & Zhao, P. (2011). A study of factors influencing voluntary divulgence of Chinese listed companies. *M&D Forum*, 245–257. https://docplayer.net/14797307

Lokanath, M., & Richa, M. (2017). Human resource divulgence and its association with corporate attributes. *Global Journal of Management and Business: Interdisciplinary, 17*(5), 1–12.

Micah, L. C., Ofurum, C. O., & Ihendinihu, J. U. (2012). Firms' financial performance and human resource accounting divulgence in Nigeria. *International Journal of Business and Management, 7*(14), 67–75.

Mukolo, S. I., Jeroh, E. J., & Ideh, A. O. (2022). Human resource accounting and financial performance of selected quoted Nigerian food and beverages firms. *Finance and Accounting Research Journal, 4*(3), 51–57. https://doi.org/10.51594/farj.v4i3.379

Odewusi, S. A., Adegbie, F. F., & Nwaobia, A. N. (2025). Corporate governance and firm value: The mediating role of human resource accounting in Nigerian manufacturing companies. *Archives of Business Research, 13*(1), 241–257. https://doi.org/10.14738/abr.131.18404

Ofurum, C. O., & Adeola, S. O. (2018). Human resource accounting and profitability of quoted firms in Nigeria. *International Journal of Advanced Academic Research, 4*(2), 58–73.

Ogunbiyi-Davies, B. A., Alao, M. E., Aremu, P. O., & Olalere, M. D. (2023). HR accounting and financial performance of some food and beverages firms in Nigeria. *Open Access Library Journal, 10*, e9755. https://doi.org/10.4236/oalib.1109755

Ojokuku, R. M., & Oladejo, K. S. (2017). Firms' characteristics and human resource accounting divulgence in Nigerian quoted manufacturing companies. *International Journal of Finance and Management in Practice, 5*(1), 360–375.

Oyaide, J. O., & Aminu, I. A. (2024). Human resource accounting and financial performance of deposit money banks in Nigeria. *FUDMA Journal of Accounting and Finance Research, 2*(1), 102–117. https://fujafr.fudutsinma.edu.ng/index.php/fujafr/article/view/142

Penrose, E. (1959). *The theory of the growth of the firm*. Basil Blackwell.

Pham, D. H., Chu, T. H., Hoang, T. B. N., & Lai, T. T. T. (2022). Human resource accounting divulgence among listed companies in Vietnam: An empirical study. *Cogent Business & Management, 9*(1), Article 2067025. https://doi.org/10.1080/23311975.2022.2067025

Surinder, K., Venkat, A. R., & Monica, S. (2016). Impact of corporate characteristics on human resource divulgences. *Asian Review of Accounting, 24*(4), 390–425.

Syed, A. A. (2009). Human resource accounting divulgence of Bangladeshi companies and its association with corporate characteristics. *BRAC University Journal, 4*(1), 35–43.

Ullah, M. H., Uddin, M. H., & Khanam, R. (2014). Relationship between human resource divulgence and company attributes: An empirical study on textile companies in Bangladesh. *International Journal of Accounting and Financial Reporting, 4*(2), 1–34.

Vazakidis, A., Stavropoulos, A., & Galani, D. (2013). Company characteristics and human resource divulgence in Greece. *Procedia Economics and Finance, 5*, 112–121. https://doi.org/10.1016/S2212-5671(13)00015-1

Whiting, R. H., & Woodcock, J. (2011). Firm characteristics and intellectual capital divulgence by Australian companies. *Journal of Human Resource Costing & Accounting, 15*(2), 102–126.