Corporate Governance Dimension and Return on Assets: Evidence from the Nigerian Health Care Sector

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Abstract

The healthcare sector in Nigeria continues to be a hub of innovation, drawing global attention due to its complex and inventive approach in delivering life-improving products and services that cater to diverse healthcare needs. However, the integration of these innovations demands substantial investments, a venture made viable only through effective corporate governance strategies. This research delves into the impact of corporate governance on the returns generated from assets within several healthcare companies listed on the Nigerian Stock Exchange (NSE). Focusing on ten healthcare companies listed on the NSE, this study employs an ex-post facto research methodology. Secondary data sourced from various references are subjected to analysis using the generalized least squares (GLS) regression method. The outcomes of the analysis distinctly demonstrate that the facets of corporate governance exert a palpable influence on the asset returns of the chosen healthcare enterprises. The findings underscore the pivotal role of corporate governance in influencing companies' asset returns. In light of these outcomes, it is deduced that a substantial correlation exists between corporate governance practices and companies' asset returns. Consequently, it is strongly suggested that healthcare enterprises diligently adhere to the principles of corporate governance to augment their profitability in both immediate and enduring contexts.

Keywords: Board gender diversity, Board independence, Board size, Corporate governance, External audit quality, Return on assets.

JEL Classification: G30, G34, M14.
1. Introduction

The healthcare sector plays a pivotal role in facilitating economic and financial inflow into a country's economy (Agara & Stainbank, 2018). Regularly assessing the performance of the healthcare sector is essential to ensure the resilience, stability, and safety of healthcare institutions. This is crucial to uphold a nation's sustained growth and overall development (Arslan & Alqatan, 2020). Conversely, the challenge of reconciling healthcare spending with available resources appears to be a persistent issue within the healthcare system (Ahmed & Rugami, 2019). Apart from demographic factors, the escalating trend in hospital expenditures is primarily attributed to the integration of new technologies, administrative complexities, and deficient financial management of hospital units. Consequently, addressing healthcare challenges requires comprehensive, long-term structural reforms on a significant scale (Agbo-Ajala & Viriri, 2020).

Healthcare system challenges exhibit significant variations across countries on a global scale. For instance, countries with lower Human Development Index (HDI) tend to grapple with human resource issues, whereas nations with a very high HDI encounter more challenges related to healthcare delivery (Muia, 2017). Similarly, Ahren and Dittmar (2018) highlight that despite the United States allocating almost double the healthcare expenditure compared to the average Organization for Economic Co-operation and Development (OECD) countries, it fares poorly in terms of life expectancy and exhibits elevated suicide rates. This places it in contrast with countries like Belgium, the Czech Republic, Norway, Switzerland, and the United Kingdom (World Health Organization, 2019), which maintain superior health indicators despite lower healthcare spending.

Across Africa, the healthcare system has encountered a range of setbacks over time, encompassing issues such as human resources, institutional limitations, political challenges, financial constraints, and technical shortcomings (Zona, Zattoni, & Minichilli, 2016). These obstacles have impeded the attainment of fundamental prerequisites necessary for an effective healthcare system in numerous African nations (Choi & Weiss, 2015). Owing to the subpar state of Africa's healthcare infrastructure, a growing number of Africans are resorting to medical tourism as a lifestyle choice (Chauhan, Lakshmi, & Dey, 2016). With inadequate national health insurance systems and deficient service coordination, financial barriers to healthcare access persist prominently across Africa, leading to substantial out-of-pocket expenditures. Furthermore, the scarcity of human resources and the phenomenon of "brain drain" from Africa to regions such as Europe, the Middle East, and North America exacerbate healthcare outcomes (Agara & Stainbank, 2018).

In Nigeria, the healthcare sector and its corresponding systems have undergone transformational changes over time, driven by healthcare reforms aimed at tackling the prevalent public health challenges (Nigerian Health Association, 2021). Despite these reform efforts, the nation's struggles in effectively addressing its complex public health issues have perpetuated a cycle of high poverty rates and a vulnerable healthcare system (Adefemi, Hassan, & Fletcher, 2018). Factors such as political instability, corruption, institutional inadequacies, and an unstable economy have significantly contributed to Nigeria's suboptimal healthcare development. The consequences of these challenges are palpable, with households and individuals in Nigeria grappling with a dysfunctional and unequal healthcare system. People often delay or forego seeking healthcare due to the system's shortcomings, while also bearing the burden of unaffordable out-of-pocket payments for essential medical services (Bhagat & Black, 2016).
Additionally, instances of employee strikes and sporadic denial of treatment have emerged as a result of the government's failure to formulate effective policies, initiatives, and agreements with healthcare practitioners and stakeholders (Nigerian Health Association, 2021).

The exposure of unethical conduct that has led to the downfall of reputable companies has prompted widespread attention to the field of corporate governance, capturing the interest of a diverse array of stakeholders (Markarian & Parbonetti, 2018). The topic of corporate governance has attracted significant scholarly interest, resulting in numerous empirical studies exploring the connection between firm governance and its impact on financial performance. The self-assuredness of investors in corporate entities has been eroded by a series of global corporate failures, including the collapse of prominent firms like Enron, Arthur Andersen, and Saga. This has, in turn, detrimentally affected investor confidence in such companies. This diminished confidence can be attributed to factors like a lack of accountability, deficient transparency and disclosure practices, and unreliable audit procedures. In the Nigerian context, a series of ongoing business failures, unethical financial practices, and instances of non-performance have culminated in a credibility deficit within corporate governance practices (Emeseh & Songi, 2014).

The significance and tangibility of a company's return on assets cannot be overstated, as it serves as a crucial metric for assessing several aspects of the company's operations. It acts as a fundamental gauge for long-term profitability, the company's ability to sustain itself, the foundation for making informed investment decisions, a measure of management accountability, and a predictor of the company's capacity to meet future obligations such as dividends, interest payments, debt servicing, taxes, salaries, and other commitments to stakeholders (Kusuma, 2021). Return on assets, often referred to as ROA, stands as one of the most widely utilized indicators for evaluating financial performance. This ratio provides insight into how effectively a company's assets—comprising resources funded by owner equity and external borrowing from banks or other entities—generate profits (Carter, 2018).

Numerous research studies, such as those conducted by Abbasi, Jhatial, and Halepota (2018); Adefemi, Hassan, and Fletcher (2018); Black, Antonio, Vikramaditya, Kim, and Yurtoglu (2017); Carter (2018); Gambo, Bello, and Rimamshung (2018); Kamau, Machuk, and Aosa (2018); Markarian and Parbonetti (2018); Solimene, Coluccia, and Fontana (2017); Tricker (2016); and Zia Ur Rehman (2020), have explored a variety of factors that influence corporate governance. However, within the Nigerian context, there is an evident research gap when it comes to investigating the impact of corporate governance on the return on assets of healthcare companies. This study addresses this gap by focusing on the crucial issue of return on assets, particularly within the Nigerian healthcare sector. The dearth of existing research on this specific aspect prompted the present study to delve into the relationship between corporate governance practices and the return on assets of healthcare firms in Nigeria. By doing so, this research contributes significantly to the existing literature on corporate governance and its influence on return on assets, specifically within the context of the Nigerian healthcare industry.

2. Literature Review

Corporate governance has consistently captured attention within the realm of management due to its pivotal role in aligning the objectives of both shareholders and business executives. A perspective exemplified by Shleifer and Vishny (2017) underscores how corporate governance serves as a means for shareholders to ensure their investments yield returns, emphasizing
financial gains, security, and control. Donaldson (2019), concentrating on the structure of the board of directors, defines corporate governance as the framework enabling the oversight, direction, and monitoring of an organization's top management and its related structures for strategic initiatives and other supervisory measures. Bodaghi (2018) approaches corporate governance as not just a mechanism, but a philosophical approach encompassing procedures and organizational frameworks. These frameworks are designed to create value for shareholders while simultaneously safeguarding the interests of all stakeholders. In a similar vein, Cornelius (2015) characterizes corporate governance as a system of objectives and strategies formulated by corporate directors, with a focus on their practical implementation. However, the practical application of the corporate governance concept within a company is gauged and influenced by factors such as the size of the board, the degree of board independence, the inclusion of gender diversity, and the effectiveness of external audit quality. These elements serve as measures to assess the extent to which a firm adheres to the principles of corporate governance.

The size of a company's board of directors and its level of independence are intricately linked. The board size pertains to the total count of directors, encompassing both executive members (such as the CEO and/or Chairman) and non-executive members who serve on the board during each accounting year (Zia Ur Rehman, 2020; Bebeji, Mohammed & Tanko, 2015; Zabri, Ahmad & Wah, 2016). On the other hand, board independence involves the inclusion of external executives on the board and is measured by the proportion or percentage of executive and non-executive directors on the board (Walker, Machold & Ahmed, 2016). This interplay is pivotal for assessing the board's effectiveness, as it enables the board to operate independently and impartially, free from both internal and external influences. Variation in the composition of governing boards across organizations is observed concerning the number of directors, presence of external directors, and the degree of director independence (Razek, 2017). Another integral facet of effective corporate governance is board gender diversity. This term refers to the inclusion of both male and female directors on a company's board of directors (Daily, 2016). The concept of board diversity suggests that corporate boards should mirror the structure of society and encompass a balanced representation of individuals from diverse racial, gender, and professional backgrounds (Carver, 2016; Daily & Dalton, Cannella, 2016; Keasey, Smith, Fernandez, Durbin, Zhao & Ulrich, 2018; Dike, 2017). Audit quality, as elucidated by Jakada and Inusa (2016), signifies the likelihood that an independent auditor will identify and disclose significant misrepresentations in a client's financial statements. This perspective underscores that the auditor's competence influences their likelihood of detecting misstatements, while their independence determines whether such discrepancies will be reported (Bebeji, Mohammed & Tanko, 2015).

Return on assets (ROA) is fundamentally conceived as a metric that reflects a company's operational performance and serves as an indicator of its effectiveness in leveraging its assets to generate cash flows. In essence, it quantifies how much value is generated for each unit of investment in stocks or debt. The theoretical framework suggests that if the ROA surpasses the capital costs, the investment exhibits a net positive value and is potentially viable for operation, whereas the reverse holds true if the ROA falls short. ROA essentially serves as a measure of the efficiency of an investment and plays a crucial role in informing both management and investors' decision-making processes regarding an investment's viability (Muya & Gathogo, 2016). The percentage figure represented by return on assets holds pivotal importance for businesses, especially when contemplating the initiation of a new project. It plays a determining role in evaluating profitability. In principle, the decision to undertake a new project should be made
based on whether the return on assets surpasses the rate at which the company acquires borrowed funds. Acceptance of a project is typically recommended if the return on assets exceeds the borrowing rate, while it is advisable to reject the project if this condition is not met. This principle ensures a prudent approach to investment decision-making by aligning projected returns with the costs of capital (Muya & Gathogo, 2016).

The theoretical relationship between corporate governance and return on assets is grounded in the concepts of agency theory and stakeholder theory. Agency theory, initially formulated by Jensen and Meckling in 1976, centers on the dynamic between a firm's board of directors (the principal) and its managers (the agents) in the management and supervision of organizational operations. The theory posits that when managers and the board of directors possess conflicting objectives, an agency problem emerges within the organization. This occurs in scenarios where a principal appoints an agent to perform tasks on their behalf. The composition of the board is emphasized in overseeing the agency relationship, which significantly influences a firm's performance (Jensen & Meckling, 1976).

The agency theory also underscores that a separation of ownership and control can lead to conflicts of interest between management and shareholders. Executives are often driven by self-interest, opportunism, and differing goals and risk preferences (Fama & Jensen, 1983; Ujunwa, 2012). As per agency theorists, a primary responsibility of the board is to monitor executives and safeguard shareholders from potential conflicts of interest (Hassan & Marimuthu, 2016). Conversely, others perceive the board of directors as a vital control mechanism that prevents CEOs from prioritizing their own interests over shareholder wealth (Darko, Aribi & Uzonwanne, 2016). In line with this perspective, agency theory suggests that enhancing board independence is crucial for effective oversight. This can be achieved by including a significant number of independent external directors on the board and maintaining separation between the roles of the CEO and the chairperson of the board (COB) (Luckerath-Rovers & De Bos, 2011).

Another theoretical perspective, known as stakeholder theory, was introduced by Edward Freeman in 1984. This theory's fundamental premise is that businesses generate value not only for shareholders but for all parties involved. It seeks to strike a balance among the often conflicting interests of both internal and external stakeholders. The theory recognizes that the interests of external and passive shareholders are increasingly aligned with those of significant stakeholders. In essence, stakeholder theory addresses the question of which groups of stakeholders deserve and necessitate management's attention. It argues that since companies are deeply intertwined with society, they bear a responsibility to advance the welfare of society as a whole (Freeman, 1984; Freeman, Wicks & Parmar, 2004).

However, stakeholder theory has not been without criticism. Authors like Scherer and Patzer (2010) have contended that it lacks specificity and places excessive emphasis on generating value for stakeholders without sufficiently addressing the concept of value creation and its measurement. Similarly, Harrison and Wicks (2013) have argued that the theory leans too heavily toward economic value from a firm's perspective, rather than encompassing a broader understanding of value from the standpoint of stakeholders. Conversely, various studies have supported stakeholder theory (see Bebeji, Mohammed, and Tanko, 2015; Sumedrea, 2016; Miller and Triana, 2009). Its proponents assert that organizational managers are tasked with serving a web of relationships, including suppliers, employees, and business partners. In essence, stakeholders are entities that either facilitate or impede an organization's pursuit of its goals (Jensen, 2001). This study's analysis is rooted in stakeholder theory, as illustrated in Figure 1.
The choice of this theory is driven by its relevance in comprehensively accounting for and understanding the influence of an organization's leadership on its operational dynamics.

**Figure 1**: Authors’ Model (2022)

From an empirical standpoint, the research findings of studies conducted by Ebenezer, Islam, Yusof, and Shamsuddin (2018), Ratnawati, Abdul Hamid, and Popoola (2016), Parveen, Malik, Mahmood, and Ali Jan (2016), Ramadan (2015), Swai and Mbogela (2016), Nguyen (2016), Rad, Locke, and Reddy (2012), Gouiaa and Zéghal (2013), and Yusoff and Armstrong (2012) lend support to the tenets of stakeholder theory. These studies have explored various facets of corporate governance and their impact on organizational performance, particularly as measured by return on assets.

These research investigations collectively underscore the significance of factors such as audit quality, board composition practices, operational risk, professional membership within the board, board characteristics (including the presence of qualified and experienced directors), and liquidity management in influencing organizational performance. A specific example is the study conducted by Ebenezer et al. (2018), which discovered that external audit quality had a notable negative influence on the performance of certain companies. This finding contrasts with the broader consensus that generally emphasizes a positive correlation between corporate governance and organizational performance. The combined insights from these studies contribute to the empirical validation of stakeholder theory, substantiating the premise that corporate governance practices play a pivotal role in shaping organizational outcomes, particularly in terms of return on assets.

From an empirical perspective, the findings of Ebenezer, Islam, Yusof, and Shamsuddin (2018), Ratnawati, Abdul Hamid, and Popoola (2016); Parveen, Malik, Mahmood, and Ali Jan (2016); Ramadan (2015), Swai and Mbogela (2016), and Nguyen (2016); Rad, Locke, and Reddy (2012); Gouiaa and Zéghal (2013); Yusoff, and Amrstrong (2012) in their various studies support the stakeholder theory. The studies revealed audit quality, board development practices, operation risk, board professional membership, board characteristics (such as qualified and experienced directors), and liquidity management have effects on organizational performance measured by return on assets. Specifically, the study by Ebenezer et al. (2018) found external audit quality to have a significant negative effect on the performance of some companies, as
opposed to the majority submission of a positive interaction between corporate governance and organizational performance.

3. Methodology

The research employs an ex-post facto research design and focuses on a sample comprising 10 healthcare companies that are publicly listed on the Nigerian Stock Exchange as of the year 2020. The study collects secondary data from these companies and employs panel regression analysis as its methodological approach. More specifically, the study utilizes the Generalized Least Squares (GLS) technique to examine the impact of corporate governance practices within the selected healthcare companies on their return on assets. This approach enables the researchers to investigate the effect of corporate governance factors and financial performance, as measured by return on assets, using the collected data from the selected companies. Based on the model framework shown in Figure 1, the study functional relationship is written as:

\[ \gamma = f (\chi) \quad \text{................................ (1)} \]

Where:

\[ Y = \text{Dependent Variable (Return on Assets)} \]
\[ X = \text{Independent Variable (Corporate Governance)} \]

Where \( X = x_1 - x_4 \)

\[ x_1 = \text{Board Size (BS)} \]
\[ x_2 = \text{Board Independence (BI)} \]
\[ x_3 = \text{Board Gender Diversity (BGD)} \]
\[ x_4 = \text{External Audit Quality (EAQ)} \]

The econometric form of the functional relation between return on assets and governance is thus specified as:

\[ \text{ROA}_{it} = \beta_0 + \beta_1 \text{BS}_{it} + \beta_2 \text{BI}_{it} + \beta_3 \text{BGD}_{it} + \beta_4 \text{EAQ}_{it} + \xi_{it} \quad \text{................................. (2)} \]

Where:

\[ \beta_0 = \text{Intercept} \]
\[ \beta_1 - \beta_4 = \text{Coefficients of parameters to be estimated} \]
\[ \xi_{it} = \text{Error term} \]

It is thus negatively hypothesized that the corporate governance of the selected healthcare companies has no significant impact on their return on assets.

4. Results and Discussion

The study's analysis initiates with preliminary assessments. These assessments involve conducting the Hausman test and its subsequent confirmatory evaluation to ascertain the suitable estimation technique for the study. The Hausman test is employed to determine whether the random effects or fixed effects estimation method is more fitting for the analysis. In this context, the results of the Hausman test yield a probability of 0.27, which indicates that the random effects estimation technique is deemed more appropriate. Furthermore, a confirmatory examination using the Breusch and Pagan Lagrangian multiplier test for random effects is
conducted. The obtained probability result of 0.00 from this confirmatory test aligns with the appropriateness of the random effects estimation technique. Together, these preliminary tests affirm the selection of the random effects estimation method as the suitable approach for the subsequent analysis in the study.

Table 1 presents the outcomes of the regression equation outlined in equation 2, which explores the influence of corporate governance indicators (BS, BI, BGD, and EAQ) on the return on assets (ROA). The findings disclose that all the corporate governance metrics exert a positive impact on the return on assets of the healthcare companies under examination, except for external audit quality (EAQ). By assessing the t-test values and corresponding probability values to gauge the significance of each corporate governance measure’s effect on return on assets, notable trends emerge. Specifically, for board size (BS), the t-test value is 2.57, and the associated probability value is 0.01, both of which are below the chosen 5% level of significance. Similarly, in the context of board independence (BI), the t-test value is 2.66, and the corresponding probability value is 0.01, both of which are also below the chosen 5% significance level. These findings point to the significant influence of board size (BS) and board independence (BI) on the return on assets (ROA) of the selected healthcare companies. In essence, the results underscore that these corporate governance factors play a significant role in shaping the financial performance, as measured by return on assets, within the context of the examined healthcare firms.

On the other hand, in contrast to the aforementioned results, board gender diversity (BGD) demonstrates a t-test value of 1.56, accompanied by a probability of 0.12. This probability exceeds the chosen 5% significance level, indicating that the impact of board gender diversity on the return on assets of the selected firms is not statistically significant. In essence, the data does not provide strong evidence to support a significant effect of board gender diversity on the return on assets.

Finally, the presence of a negative coefficient alongside t-test values for external audit quality (EAQ) with probabilities greater than 5% indicates that it has an insignificant negative effect on the return on assets of the studied firms. In other words, the findings suggest that external audit quality does not exert a meaningful impact on the return on assets within the context of the examined healthcare companies. The estimated regression equation can thus be specified as:

$$ROA_{it} = 0.0017 + 0.0066BS_{it} + 0.0398BI_{it} + 0.1375BGD_{it} - 0.0631EAQ_{it} + \xi_{it} \ldots \ldots \ldots (3)$$

The magnitude and direction of the impact for each corporate governance’ metric were determined by evaluating their coefficient values in conjunction with the associated signs. The coefficient for external audit quality (EAQ) is -0.06, indicating that an increase in external audit quality is linked to a reduction of 6 percentage points in return on assets (ROA). Conversely, the coefficients for board size (BS), board independence (BI), and board gender diversity (BGD) are all positive. For board size (BS), a coefficient of 0.006 signifies that a rise in board size corresponds to a 0.6 percentage point increase in ROA. The coefficient of board independence (BI) at 0.04 suggests that a 4 percent elevation in ROA results from an increase in board independence. Similarly, the coefficient of board gender diversity (BGD) at 0.137 implies that as board gender diversity increases, ROA also increases by 13.7 percent. In light of the interpretations derived from both the probability outcomes of t-tests and the coefficients, the regression findings indicate that external audit quality (EAQ) exerts an insignificant but negative influence on ROA. On the other hand, board gender diversity (BGD) has an insignificant yet
positive impact. However, board size (BS) and board independence (BI) positively and significantly affect ROA, suggesting that changes in these factors are linked to notable changes in return on assets within the context of the analyzed healthcare companies.

The result of the Wald-statistics is recorded as 79.47, corresponding to a chi-square value of "4," which indicates the presence of four explanatory variables within the model. The associated probability value of 0.00 carries the implication that board size (BS), board independence (BI), board gender diversity (BGD), and external audit quality (EAQ) collectively exert a statistically significant impact on return on assets (ROA).

Furthermore, the adjusted R-squared value, measuring the proportion of variance in ROA explained by the combined changes in BS, BI, BGD, and EAQ, stands at 0.048. This figure signifies that approximately 4.8% of the variation in ROA is attributable to variations in these four corporate governance factors. The remaining variation, amounting to 95.2%, is influenced by factors outside the scope of the model.

At a significance level of 0.05, the Wald statistic is calculated as 79.47, and the corresponding p-value of the Wald statistic is reported as 0.00. This p-value is lower than the adopted level of significance (0.05). Consequently, the study rejects the null hypothesis positing that corporate governance has no significant impact on the return on assets of the selected healthcare companies. In this context, the alternative hypothesis asserting that corporate governance indeed holds a significant effect on the return on assets of the chosen healthcare firms is accepted. This underscores the importance of corporate governance in shaping the financial performance outcomes of these healthcare companies.

Table 1: Estimation Output

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coeff</th>
<th>Std. Err</th>
<th>T-Stat</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.0017244</td>
<td>0.0129735</td>
<td>0.13</td>
<td>0.894</td>
</tr>
<tr>
<td>BS</td>
<td>0.0066332</td>
<td>0.0025791</td>
<td>2.57</td>
<td>0.010</td>
</tr>
<tr>
<td>BI</td>
<td>0.0398305</td>
<td>0.0149827</td>
<td>2.66</td>
<td>0.008</td>
</tr>
<tr>
<td>BGD</td>
<td>0.1374668</td>
<td>0.0878393</td>
<td>1.56</td>
<td>0.118</td>
</tr>
<tr>
<td>EAQ</td>
<td>-0.0630786</td>
<td>0.383217</td>
<td>-1.65</td>
<td>0.100</td>
</tr>
<tr>
<td>Adj. R²</td>
<td>0.048</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-Stat/Wald Stat</td>
<td>chi²(4) = 79.47 (0.00)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hausman Test</td>
<td>chi²(4) = 5.13 (0.27)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Testparm Test/LM Test</td>
<td>chi²(1) = 26.82 (0.000)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heteroskedasticity Test</td>
<td>chi²(1) = 7.29 (0.00)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serial Correlation Test</td>
<td>F(1, 9) = 1.333 (0.278)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-Sectional Dependence Test</td>
<td>-0.633 (0.527)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Authors’ Computation (2023)

Diagnostic tests were conducted to assess the suitability of the model. The first test examined heteroskedasticity, which assesses the presence of variations in the model's residuals. The obtained probability value of 0.00 indicates that the model is homoscedastic, implying that the residuals remain constant over time. Consequently, the null hypothesis of consistent residuals over time is not rejected.
Furthermore, the model coefficients and residuals underwent evaluation for potential autocorrelation issues using the Wooldridge test. The resulting probability value of 0.278 indicates that there is no significant correlation between the model's coefficients and residuals, indicating the absence of serial correlation within the model. Additionally, cross-sectional independence was analyzed using the Pesaran CD test. The resulting probability value of 0.527 suggests an absence of multicollinearity within the model. Considering the identified cross-sectional dependence, the model was estimated using random-effects generalized least squares (GLS) regression, employing Driscoll-Kraay standard errors. The findings and results of this analysis are presented in Table 1.

The study findings on the effect of external audit quality on return on assets corroborate the findings of Ebenezer et al. (2018), who submitted that external audit quality negatively affects the performance of companies. Similarly, the conclusions of Ratnawati et al. (2016), Parveen et al. (2016), and Ramadan (2015), among others, support the positive effect of other corporate governance measures (board size, board independence, and board gender diversity) on return on assets found in this study. Conclusively, the study results are in line with the tenets of the stakeholders’ theory.

5. Conclusion and Recommendations

This study focused on the examination of the effect of corporate governance dimensions on the return on assets of some selected healthcare companies in Nigeria. The study thus revealed that the effect of corporate governance dimensions on return on assets is positive and significant. However, the study outcome is in line with the stakeholder theory on which the study was anchored. Generally, the agency theory and stakeholder theory were reviewed to provide theoretical linkage for study variables. This study concludes, based on its findings, that the corporate governance dimensions significantly affect return on assets. The study thus recommends, based on its findings that healthcare organizations fully comply with corporate governance concepts, as this will increase their financial performance in both the short and long run. In addition, it is recommended that future studies look into how external corporate governance systems, including but not limited to healthcare supervisors, regulators, external auditors, credit rating agencies, markets for corporate control, and the managerial labour market, can affect financial performance. Additionally, to ensure the validity of existing findings, future research should examine the connections between private domestic ownership, board ownership, board diversity, board meetings, and board remuneration with the inclusion of control variables such as debt financing, capital intensity, healthcare firms’ risks, and healthcare firms’ age.

References


