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THE IMPACT OF CORPORATE GOVERNANCE AND BANK MONITORING ON BORROWER FIRMS' FINANCIAL HEALTH IN NIGERIA

Abdulai Agbaje SALAMI[1*], Ahmad Bukola UTHMAN[2], Shukurat Funmilayo YAKUBU[3]

[1]*Al-Hikmah University, Ilorin, Nigeria*
[2]*Nile University of Nigeria, Abuja, Nigeria*
[3]*State Controller Office, Federal Ministry of Labour and Productivity, Ilorin, Nigeria*

**Corresponding author's e-mail: abdagbaje1@gmail.com*

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Abstract. This study, motivated by evidential corporate governance (CGV) irregularities and bank-borrower frosty relationship, examines the linkage of corporate governance index (CGVI) and bank monitoring to borrower firms' financial health (FFH) among listed non-financial firms in Nigeria. The study uses firm-level data hand-extracted from annual reports of 48 non-financial firms over the period 2012–2021. Data are analysed using appropriate static panel regression models based on three diagnostic tests of heteroscedasticity, first-order autocorrelation and cross-sectional dependence. The results showed that CGVI has a significantly positive impact on the FFH but is identifiable more with Z-score and returns on assets than returns on equity as measures of FFH. A similar scenario is also empirically observed for the bank monitoring-FFH relationship. However, further analysis could not reveal that bank monitoring is a corporate force in the CGVI-FFH nexus. These findings call for a look into the concurrent representation of borrower firms' board members on the boards of creditor banks. The study's findings are also a pointer to the need for increased enforcement of compliance with CGV codes/guidelines. This study appears foremost in the relevant literature to test the moderating influence of bank monitoring in the linkage of CGV quality to FFH. In the Nigerian context, the study stands out among related studies post-unification of CGV guidelines, as available literature still focuses on the link between individual CGV mechanisms and FFH.

Keywords: *Bank loan, bank monitoring, corporate governance, firm profitability, firm stability, non-financial firms, number of bankers.*

JEL Classification: C33, G30, G38, L25, M40

INTRODUCTION

In the corporate world, sound corporate governance is seen as a veritable tool in the smooth running of a firm. The corporate governance (CGV) practices, which are exclusive to those charged with governance in an entity, have become matters of public interest via regulation in terms of codes and guidelines by local and global institutional bodies (Financial Reporting Council of Nigeria (FRC), 2018; OECD, 2023). In the literature, CGV is made to explain firms' financial health (FFH) using various dimensions, as governance of an entity has both internal and external mechanisms (Boshnak et al., 2023; Guluma, 2021). However, recent literature has resolved to the construction of the CGV index (CGVI) to determine the overall impact of CGV on FFH (Affes & Jarboui, 2023; Farooq et al., 2022). The efforts made in Nigeria to unify CGV practices through the development of a single code (FRC, 2018) against the former industry-based practices emphasize the importance attached to the sustainable positive CGV and firm value nexus.

Apart from the soundness of CGV, the literature has also established the possibility of firm value being subject to a higher level of monitoring by loan/debt providers (Cadot, 2013). Banks, as a dependable link between deficit-spending and surplus-spending economic units (Salami & Uthman, 2018), have a role to play in this direction. Bank monitoring will be keen in a firm with bank loans in its debt structure because of the need to enforce compliance with loan repayment terms, reduce firm managers' unholy entrenchment and considerably reduce agency conflict among various firm's stakeholders (Ariyono & Setiyono, 2020). The role of bank monitoring in owners-managers' relationships is not only an agency-conflict mitigation mechanism but also an external governance mechanism of sound corporate practices (Ariyono & Setiyono, 2020). The fallout of bank monitoring, as argued in the literature, which reflects in the ability of a bank to appraise the risk potential of a borrower firm after mandating it to take some measures via increased financial disclosures, culminates in the improved firm financial standing (Ahn & Choi, 2009; Dass & Massa, 2011).

A number of CGV irregularities that necessitate this type of empirical work are available in the corporate Nigerian domain, regardless of industry. In the banking sector, financial misstatements and CGV lapses that led to the sanctions of the boards of StanbicIBTC Holdings Plc (FRC, 2015), former Skye Bank Plc (Proshare, 2017) and First Bank Nigeria Limited, including its holding company (Premium Times, 2021), are issues of stakeholders' concerns. The CGV inadequacies, in the non-financial industry, established against Oando Plc led to its sanctions by the Securities and Exchange Commission (SEC, 2019) and attracted a protracted legal tussle until a truce was reached (SEC, 2021). The leadership and CGV imbroglio in Seplat Energy Plc degenerated into the indictment of its chief executive officer (CEO) and the revocation of some permits previously granted him by the Federal Ministry of Interior (Chukwuajah, 2023). The power possessed by a creditor to file a petition for winding up of his debtor, as entrenched in the Companies and Allied Matters Act, which was exercised by Access Bank Plc against African Petroleum (AP) Plc (Proshare, 2009), caused a lot of disruptions in the structure of AP and heralded its eventual acquisition by Forte Oil Plc (Financial Nigeria, 2019). This suggests that the possibility of banks reaching the extreme in their monitoring potential can prompt better performance of borrower firms via improved CGV practices.

Based on the foregoing rationales, the aim of this study is to conduct individual empirical tests of the impact of CGVI and bank monitoring on the FFH in Nigeria. The study further tests the moderating role of bank monitoring on the CGVI-FFH nexus. The change in the regulation of CGV codes in Nigeria from industry-specific to a unified system under the overall supervision of the Financial Reporting Council of Nigeria (FRC, 2018) links sound CGV to better financial standing of corporate entities. While the borrower firms have the mandate to comply with all the terms and conditions set by the lenders, the activities of lenders regarding the ability of the borrowers to meet all the conditionalities are instrumental to the prevention of borrowers' opportunistic behaviour (Ahn & Choi, 2009). The prevention of opportunistic tendencies or moral hazards, which culminates in the reduction of information asymmetries between borrower firms and lenders (Ahn & Choi, 2009), makes bank monitoring a corporate force in the CGV-FFH nexus. The reduction in information asymmetries prompted by bank monitoring activities may not be spectacular if Diamond (1984) and Fama (1985) empirical conclusion that banks have superior information-generating potential is considered. However, other corporate governance stakeholders stand to benefit greatly from bank monitoring activities if they result in the borrower firms' improved financial health. Thus, apart from its direct effect (Dina & Hermawan, 2013), bank monitoring can be a catalyst in the nexus between CGV and FFH.

The contribution of this study to the relevant literature is in fourfold. First, it advances the literature by testing the moderating influence of bank monitoring in the relationship between CGV quality and FFH. Previous studies, including recent ones, are identifiable with a standalone test of bank monitoring and firm performance nexus on the one hand (Ariyono & Setiyono, 2020; Kumar et al., 2021) and that of CGV and firm performance on the other hand (Affes & Jarboui, 2023; Farooq et al., 2022). Second, a similar rationale can be adduced for the individual test of the influence of CGVI and bank monitoring on firm stability when proxied by Z-score if the reference is made to earlier and later studies (Agarwal & Elston, 2001; Ariyono & Setiyono, 2020; Farooq et al., 2022) except Vo and Nguyen (2014), but with a focus on individual CGV mechanisms rather than CGVI. Third, in Nigeria, this study stands out among related studies post-unification of CGV guidelines, as the available literature still focuses on the link of individual CGV measures to firms' financial health (Ogunsanwo, 2019; Shittu & Che-Ahmad, 2024) rather than their index examined in this study. Fourth, this study adopts a statistical dataset condensation technique to avoid bias attributable to the assignment of scores in constructing CGVI, as evident in the recent literature (Arora & Bodhanwala, 2018; Farooq et al., 2022; Mathew et al., 2018).

In addition to the introductory part, which provides rationale for the study's attempt to establish the empirical linkage of bank monitoring, CGV and FFH, this study also comprises four other Sections. Section 1 focuses on literature review with the emphasis on theory, related concepts and previous empirical studies, including hypotheses development. Sections 2 and 3 unveil the methodology for the study's blueprint and results and discussion, respectively, subsequent to data analysis. The last section provides concluding remarks incorporating policy recommendations.

1. LITERATURE REVIEW

1.1. Theoretical and Conceptual Clarifications

As argued in the literature, signalling theory provides the basis that sound CGV practices represent a signal to the market that a better governance structure is followed by those charged with governance (Akbar et al., 2016). A better governance structure has a tendency to increase all the indices of success of a firm (Beiner et al., 2006). This is also similar to the propositions of agency theory, as the supervisory role of the board of directors is considered a prelude to a reduction in agency costs, which culminates in improved firm performance (Bryant & Davis, 2012). Stewardship theory equally lends credence to the positive sound CGV and better firm value nexus from the perspective of insider directors rather than outsider directors as stewards (Boshnak et al., 2023). Insider directors, as stewards, prioritize collectivism over individualism (Farooq et al., 2022) since they act in the best interest of the owners rather than their own (Davis et al., 1997). The argument of the resource dependence theory is that the success of an entity is a function of its grip over the resources for smooth operation (Daily et al., 2003). This suggests that the board of directors serves as a link for the acquisition of critical resources via external connections to the business environment for business sustainability (Farooq et al., 2022). Another theory used in the literature to explain how compliance with CGV codes prompts business survival (Affes & Jarboui, 2023), but also applicable to the monitoring role of lenders, is the institutional theory. Since legitimacy and survival of an entity are dependent on the response of its immediate environment (Affes & Jarboui, 2023), the nature of CGV practices of a firm prompts the responses of different stakeholders (Judge et al., 2008), including its bankers.

Firm financial health, in terms of firm performance in the recent literature, is often measured by firm profitability, value and stability (Arora & Bodhanwala, 2018; Farooq et al., 2022; Salami, 2018). Firm profitability is conceptualized in terms of returns on assets (ROA), equity (ROE) and sales and earnings per share (EPS) (Arora & Bodhanwala, 2018; Farooq et al., 2022; Shrivastav & Kalsie, 2017). Firm value, which is a market-based performance metric, could be Tobin's Q or economic value-added (Dina & Hermawan, 2013; Dewri, 2022; Shrivastav & Kalsie, 2017). The stability of a firm can be deduced from its distance to default or liquidation (Salami, 2018). The distance to insolvency of a firm is often indicated by its Z-score (Salami, 2018). Z-score as a measure of a firm's stability or solvency incorporates three accounting indicators: profitability, leverage and volatility (Bustaman et al., 2017). Z-score as an index represents the sum of returns on assets and equity-asset ratio, but scaled by the standard deviation of returns on assets, with a higher value symbolizing that a firm is more stable (Salami, 2018). However, to achieve the objective of this study, firm profitability and stability are adopted as measures of firm financial health owing to the difficulty in accessing market-based data required for computing Tobin's Q and economic value-added.

In the literature, the overall indicator of CGV mechanisms is summarized in the form of CGVI (Arora & Bodhanwala, 2018; Shrivastav & Kalsie, 2017; Akbar et al., 2016), CGV score (Affes & Jarboui, 2023) and/or CGV performance index (Dina & Hermawan, 2013). Although several CGV provisions are used in the construction of the overall CGV indicator, they are mainly extracted from the following CGV attributes, which include board of directors' attributes, board meetings, audit committee characteristics, shareholders/investors' information, board committee characteristics, board of directors and/or institutional investors' shareholding (Akbar et al., 2016; Arora & Bodhanwala, 2018; Farooq et al., 2022; Shrivastav & Kalsie, 2017). The choice of CGV mechanisms used to construct CGVI in this study is premised on the level of disclosure in the annual reports of the sampled firms.

Literature documents that the improved monitoring of borrower firms by banks is often manifested in the number of bankers of a borrower firm, the proportion of bank loans in total debts and having a single banker (Ariyono & Setiyono, 2020; Kumar et al., 2021). Bank monitoring is also measured using the length of a borrower firm's bank loans outstanding period, bank monitoring quality (Dina & Hermawan, 2013) and holding of the borrower firms' financial statements from time to time by the bankers (Cadot, 2013), as well as the reputation (in the form of credit rating) of the banker (Ahn & Choi, 2009). Based on the available disclosures in the annual reports of sampled firms, information related to the amount of bank loans and the number of bankers, which is found in sufficient quantity, is adopted as measures of bank monitoring in this study.

1.2. Empirical Literature and Hypotheses Development

While there are several studies providing the nexus between CGVI and FFH in the literature, only a few studies have attempted to provide a link between bank monitoring and firm performance. To reconcile this, empirical studies in the last decade are reviewed for the CGVI-FFH nexus against that of bank monitoring and its moderating influence.

Corporate Governance and Firms' Financial Health

Regardless of a few mixed results, in the last decade, CGVI has been predominantly documented to be positively related to FFH. Notwithstanding the measure of performance, good CGV practices indicated by higher CGVI reflect in the improved financial standing as found by a number of previous studies (Arora & Bodhanwala, 2018; Farooq et al., 2022; Javaid, 2015; Satrio, 2022; Shrivastav & Kalsie, 2017). The improved firms' financial performance engendered by higher level of CGV practices is reflected specifically, as found by previous studies, in higher ROA and returns on net worth against Tobin's Q (Mishra et al., 2021), better ROA (Mishra & Mohanty, 2014), increased Tobin's Q only (Cheung et al., 2022; Kandukuri et al., 2015), higher Tobin's Q against ROA (Ciftci et al., 2019), higher profitability rather than stock returns (Akdogan & Boyacioglu, 2014) and favourable stock price though insignificant (Mulyono et al., 2018). Higher CGVI is also found to reinforce better EPS and ROA, but only significant in the EPS model in simple rather than multiple regression estimates (Mardnly et al., 2018), increased stock returns and firm value for multinationals against small and large local firms (Dewri, 2022) and higher ROE (Affes & Jarboui, 2023). Internal CGVI rather than external CGVI is found to have a positive impact on Tobin's Q (Esan et al., 2022). However, according to Akbar et al. (2016), compliance with CGV regulations does not reflect in improved ROA and Tobin's Q of corporate firms. Similar evidence is also reported by Saini and Singhania (2018) using four different profitability indicators and Tabin's Q as measures of performance. Given the preponderance of evidence in the literature, the authors form the following hypotheses.

H1: Higher CGVI has the capacity to be an ingredient of the improved financial health of listed non-financial firms in Nigeria.

Bank Monitoring and Firms' Financial Health

From a recent study of Kumar et al. (2021), where it is established that the magnitude of bank loan and the type of banker, rather than multiple banking relationships, favour better performance, the bank monitoring-performance positive nexus is emphasised. Ariyono and Setiyono (2020) also establish that agency conflict reduction is subject to the number of bankers and bank loan-total debts ratio, while Dina and Hermawan (2013) lay emphasis on bank loan magnitude and number of lenders rather than length of outstanding loan, prompting better firm performance. Bank monitoring is found to enforce better firm performance owing to the consequences of debt default rather than to protect shareholders' interest (Anderson et al., 2003). Magnitude of bank loans is found by Limpaphayom & Polwitoon (2004) to be positively related to increased capital investment, which could be incidental to better firm performance and inversely related to the probability of accounting fraud (Kusumawati & Hermawan, 2013). The profitability of borrower firms is subject to single bank rather than multilateral relationships (Degryse & Ongena, 2001) while positive firm profitability and bank monitoring nexus is subject to increased number of foreign banks' relationship rather than domestic ones (Fok et al., 2004) Against the positive bank monitoring-firm performance nexus, Agarwal and Elston (2001) could not empirically assert that the bank-firm relationship leads to increased profitability or growth of borrower firms. Based on these arguments, the second hypothesis is proposed.

H2: Bank monitoring has a positive impact on the financial health of listed non-financial firms in Nigeria.

Moderating Influence of Bank Monitoring on CGVI-Firms' Financial Health Relationship

Though some previous studies consider bank monitoring as an external corporate governance mechanism, none have tested its moderating role in the CGVI-firm performance nexus based on this study's extensive literature search. However, the fact that Dina and Hermawan (2013) empirically show that banks with high monitoring quality have the capacity to cause improved CGV practices leading to firms' better performance can be described as a testimony. This is also the submission of Kumar et al. (2021), but with reference to a single bank-firm relationship, which has mitigating power on the free-rider problem. Ahn and Choi (2009) report similar findings, which may prompt better CGV practices are attributed to a reduction in earnings management practices of bank-dependent firms. Using this previous empirical evidence, the third hypothesis is formed.

H3: Bank monitoring has a positive impact on the extent of the relationship between CGVI and borrower firms' financial health in Nigeria.

2. METHODOLOGY

Based on the level of data collection, which is done at time series and cross-sectional levels, a longitudinal design is adopted for the study. Data are obtained from the hand-extracted annual reports of 48 sampled non-financial firms out of 106 listed as of 31 December 2021 over the period 2012–2021 using judgmental sampling. While 2012 marked the year of transition to International Financial Reporting Standards in Nigeria, most current annual reports available as of the second quarter of 2022, when data were extracted, are those of 2021. Although a number of firm-level data are extracted; the choice of a company is based on the availability of "bank loans and advances" in its liability structure at least for one year within the sampled period. The study's coverage of 48 firms over 10 years accounts for a balanced panel of 480 firm-year observations.

Since the test of Hypothesis 1 requires the construction of CGVI, four basic CGV mechanisms consisting of board composition, board leadership structure, board characteristics and board process as adopted by Mathew et al. (2018) are used to construct the study's CGVI. However, CGV measures adopted within each mechanism are based on their disclosures in the sampled firms' annual reports. Following the approach of Esan et al. (2022), principal component analysis (PCA) is adopted to avoid the difficulty associated with CGV provisions disclosures' scoring, ranking and weighting approach in the literature (Shrivastav & Kalsie, 2017). Therefore, CGVI is derived using the PCA estimation of the following CGV provisions, as specified in Equation (1):

$$\begin{aligned} CGVI_{it} &= \beta_1 BS_{it} + \beta_2 INED_{it} + \beta_3 FDEX_{it} + \beta_4 FDND_{it} + \\ &+ \beta_5 BMT_{it} + \beta_6 MOWN_{it} + \beta_7 MCOM_{it} + \beta_8 INSV_{it} + \beta_9 NEXD_{it} + \\ &+ \beta_{10} FOWN_{it} + \beta_{11} ACEXP_{it} \ , \end{aligned} \tag{1}$$

where $CGVI_{it}$ stands for corporate governance index obtained from condensation of specified 11 terms; i stands for firms 1–48; t ranges from 2012–2021; β is the factor loading or eigenvector serving as the weight of each item used to construct $CGVI_{it}$ using PCA. The measurements of components of $CGVI_{it}$ are presented in Table 1.

Upon derivation of $CGVI_{it}$, *FFH* is made a function of *CGVI* following the approach of previous studies (Affes & Jarboui, 2023; Dewri, 2022; Shrivastav & Kalsie, 2017), as specified in Equation (2):

$$FFH_{it} = \delta_0 + \delta_1 CGVI_{it} + \delta_2 SGT_{it} + \delta_3 AGE_{it} + \delta_4 LVG_{it} + \delta_5 FSIZ_{it} + \varepsilon_{it}. \quad (2)$$

FFH_{it} is a vector variable of two measures of firms' financial health: profitability and stability. Profitability has two common proxies of ROA and ROE in the relevant literature (Boshnak et al., 2023; Farooq et al., 2022; Mishra et al., 2021), while stability is often measured by Z-score (Salami, 2018). Z-score as a measure of stability is specified in Equation (3) following Salami's (2018) approach.

$$Z - score_{it} = \frac{ROA_{it} + EQRF_{it}}{SDROA_{iw}} \quad (3)$$

Table 1. Measures of CGVI

S/N	Variable	Variable name	Measurement
1	BS	Board size	Number of directors on the board.
2	INED	Independent non-executive directors	The number of independent non-executive directors on the board.
3	FDEX	Female executive directors	The number of female executive directors on the board.
4	FDND	Female non-executive directors	The number of female non-executive directors on the board.
5	BMT	Board meetings	The total number of meetings held during the year.
6	MOWN	Directors' shareholding	The number of shares held by members of the board.
7	MCOM	Managerial compensation	The remuneration of the directors in a year.
8	INSV	Institutional investors	"1" is assigned if a firm has institutional investors/mutual funds with >5 % shareholding, "0" otherwise.
9	NEXD	Non-executive directors	Total number of non-executive directors on the board.
10	FOWN	Foreign ownership	Number of foreign directors on the board.
11	ACEXP	Audit committee financial expertise	Number of audit committees with financial expertise.

Source: Authors' compilations based on the conceptual framework and deduction from previous studies.

In Equation (3), *ROA* – post-tax earnings to total assets, *EQRF*– sum of equity share capital and reserves scaled by total assets, *SDROA* – standard deviation of *ROA, i* – each sampled firm, *t* – each year of the study's sampled period, and *w* – the entire sampled period.

The model for testing the second hypothesis, which requires making *FFH* a function of bank monitoring as measured by proportion bank loans in the borrower firms' liability structure (*BLN*) and number of borrower firms' bankers (*NBBK*), is specified using deductions from previous studies (Ariyono & Setiyono, 2020; Dina & Hermawan, 2013; Kumar et al., 2021) as follows:

$$FFH_{it} = \delta_0 + \delta_1 BLN_{it} + \delta_2 NBBK_{it} + \delta_3 SGT_{it} + \delta_4 AGE_{it} + \delta_5 LVG_{it} + \delta_6 FSIZ_{it} + \varepsilon_{it.} \quad (4)$$

Though the approach adopted in this study to test the moderating influence of bank monitoring in the CGVI-FFH nexus appears foremost, traces of moderation of bank monitoring in the previous studies (Ariyono & Setiyono, 2020; Dina & Hermawan, 2013) are followed to specify the econometric model for testing the third hypothesis. The econometric model is specified by expanding Equation (2) as follows in Equation (5):

$$\begin{aligned} FFH_{it} &= \delta_0 + \delta_1 CGVI_{it} + \delta_2 BLN_{it} + \delta_3 NBBK_{it} + \delta_4 \left(BLN \times CGVI\right)_{it} + \\ &+ \delta_5 \left(NBBK \times CGVI\right)_{it} + \delta_6 SGT_{it} + \delta_7 AGE_{it} + \delta_8 LVG_{it} + \delta_9 FSIZ_{it} + \varepsilon_{it} \ . \end{aligned} \quad (5)$$

The definitions and measurements of all the variables specified in Equations (2)–(5) are presented in Table 2.

Table 2. Measurements of the Study's Variables

S/N	Variable	Variable name	Measurements
1	ROA	Profitability	Ratio of post-tax earnings to total assets
2	ROE	Profitability	Ratio of post-tax earnings to total equities
3	Z-score	Stability	ROA plus EQRF jointly scaled by SDROA
4	CGVI	Corporate governance index	Corporate governance index derived from the estimation of Equation (1) using PCA
5	BLN	Bank monitoring	Proportion of bank loans in total liabilities
6	NBBK	Bank monitoring	Number of bankers
7	BLN×CGVI	Bank loans and CGVI	Interaction of bank monitoring (bank loan proportion) with CGVI
8	NBBK×CGVI	Number of bankers and CGVI	Interaction of bank monitoring (number of bankers) with CGVI
9	SGT	Sales growth	Changes in sales between year *t* and year *t*−1 scaled by sales of year *t*−1
10	AGE	Firm age	Age of the firm in years since establishment
11	LVG	Leverage	Ratio of total liabilities to total assets
12	FSIZ	Firm size	Natural logarithm of firm's total assets

Note: Items 1–3 are measures of FFH, 5–6 measure bank monitoring, while 9–12 are control variables. Source: Authors' compilations based on the conceptual framework and the deduction from previous studies.

The choice of the four control variables is based on the arguments in the literature (Farooq et al., 2022). The market power of a firm is embedded in its size (Degryse & Ongena, 2001), suggesting that the more market power a firm has, the better its performance (Farooq et al., 2022). Conversely, the extent of size of a firm can indicate the level of agency cost and affect the performance of the firm negatively (Ariyono & Setiyono, 2020). Like firm size (FSIZ), the impact of leverage (LVG) is also ambiguous. The possibility of the decrease in agency cost and increase in bankruptcy risk, which affect firm performance positively and negatively, respectively, has been traced to firm leverage (Degryse & Ongena, 2001; Farooq et al., 2022). A firm's track record should be a function of its age (AGE) as the going concern of an entity is linked to its profitability (Degryse & Ongena, 2001). The issue of capacity utilization, which allows for the distribution of indirect overheads over revenue and guarantees increased profitability, has been attributed to the inclusion of sales growth (SGT) in the relevant models (Guluma, 2021).

Although the study's hypotheses are tested using appropriate static panel models based on the results of diagnostic tests, descriptive statistics, correlation analysis, variance inflation factor (VIF) and PCA are also performed. Following the approach of Salami et al. (2021) and Salami and Uthman (2024), three diagnostic tests of heteroscedasticity of likelihood ratio test in panel (LRHT), first-order serial correlation in panel (SCOR) and test of independence of Breusch-Pagan Langragian Multiplier (IND), which allow for the choice of panel correct standard errors (PCSE) when statistically significant at p-value < 0.05, are initially performed. PCSE has the capacity to correct error structures in panel models laden with heteroscedastic, first-order autocorrelated and contemporaneously cross-sectionally correlated residuals. However, in the absence of concurrent statistical significance of the three tests, basic static panel model procedures are followed. These require a choice of panel fixed-effects model (PFE) over random-effects model (PRE) if the Hausman test statistic (HSN) is statistically significant at p-value < 0.05. The procedures also include the choice of PRE over pooled ordinary least squares regression if Breusch–Pagan Langragian multiplier test (Lang-M) is significant, p-value < 0.05. These statistics are reported below the regression estimates in the relevant tables.

3. FINDINGS AND DISCUSSION

This section presents the results of data analysis. It also discusses the findings and their implications for practices and policy-making. It specifically presents the results of descriptive statistics, PCA, correlation analysis, multi-collinearity and regression estimates.

3.1. Derivation of CGVI

The results of PCA that aid the derivation of CGVI are presented in Tables 3 and 4.

Table 3. Principal Components/Correlation for Constructing CGVI

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	1.9058	0.3406	0.1733	0.1733
Comp2	1.5652	0.2368	0.1423	0.3155
Comp3	1.3284	0.1373	0.1208	0.4363
Comp4	1.1911	0.122	0.1083	0.5446
Comp5	1.0691	0.1376	0.0972	0.6418
Comp6	0.9315	0.0933	0.0847	0.7265
Comp7	0.8382	0.2125	0.0762	0.8027
Comp8	0.6257	0.0112	0.0569	0.8595
Comp9	0.6145	0.076	0.0559	0.9154
Comp10	0.5385	0.1465	0.049	0.9644
Comp11	0.392	–	0.0356	1

Source: Authors' computations based on STATA version 15 outputs.

Table 3, which depicts the results of principal components/correlation, reveals that five components have eigenvalues >1. This reflects in the eigenvalues of the first to fifth components. The usual practice in the literature is to use the factor loadings (as presented in Table 4) of the first principal component with the highest eigenvalue to derive the index (Salami & Uthman, 2022; Salami et al., 2022). However, the fact that Component 1 has the highest eigenvalue of 1.91 explains just 17.33 % of the total variation, which may not generate a representative index. This necessitates the derivation of an index from the factor loadings of each component with eigenvalue >1 jointly explaining 64.18 % of total variation, and then average out to construct CGVI.

Table 4. Principal Components Eigenvectors for Constructing CGVI

Variable	Comp1	Comp2	Comp3	Comp4	Comp5	Comp6	Comp7	Comp8	Comp9	Comp10	Comp11	Unexplained
BS	0.3077	0.0822	0.5745	−0.0097	−0.1491	0.01	−0.2593	0.1879	0.6474	−0.0848	−0.1315	0
INED	0.5125	−0.0319	−0.2327	−0.193	−0.3862	0.0107	−0.0657	−0.0999	−0.1999	0.3152	−0.5849	0
FDEX	−0.082	0.4155	−0.0927	−0.5358	0.1198	0.3623	0.1378	0.4521	0.0797	0.3663	0.1242	0
FDND	0.3197	0.1274	−0.4805	0.2525	−0.4514	0.1067	−0.1232	0.1823	0.1385	−0.1699	0.5247	0
BMT	0.2183	0.5139	−0.152	−0.0742	0.3162	0.0986	−0.0208	−0.6994	0.2297	−0.0756	0.0438	0
MOWN	−0.1718	0.454	0.2723	0.3314	−0.2175	−0.2921	−0.2565	−0.0726	−0.2362	0.5434	0.1601	0
MCOM	0.4481	0.1724	0.3126	−0.11	0.2345	0.0491	−0.2108	0.1764	−0.6127	−0.3585	0.1509	0
INSV	0.2232	0.1455	0.2478	0.4099	−0.0743	0.2276	0.7967	0.0294	−0.0532	0.0385	−0.0485	0
NEXD	0.128	0.0156	−0.2764	0.5397	0.5556	0.1394	−0.2503	0.3245	0.0885	0.1806	−0.2813	0
FOWN	0.3276	−0.5295	0.1513	−0.0563	0.1968	0.1751	−0.032	−0.2167	0.0284	0.5117	0.4543	0
ACEXP	0.2869	0.0416	−0.1435	−0.1482	0.2352	−0.8111	0.292	0.196	0.1415	0.0701	0.1081	0

Source: Authors' computations based on STATA version 15 outputs.

3.2. Descriptive Statistics

The study's descriptive statistics depicting basic summary statistics of mean, standard deviation and range are presented in Table 5. From the mean values of means of FFH, there is no doubt that the level of profitability and stability of sampled non-financial firms is low. While the mean ROA is <3 %, those of ROE and Z-score are <5 % and 15.11, respectively. The low level of profitability and stability may suggest that sound CGV and bank monitoring do not sufficiently explain the performance of sampled firms for the study. A mean CGVI value of 6.4 represents an average CGV score given a maximum value of 9.2. Also, there is sufficient evidence to assert that Nigerian non-financial firms finance their operations with bank loans given mean (maximum) value of 23 % (99 %) for BLN. It can also be established that most of the sampled firms have multiple banking relationships, with a mean value of 8 for NBBK. The multiple banking relationships may be a source of intense monitoring by the creditor banks. Other variables' summary statistics are presented in Table 5.

Table 5. Descriptive Analysis

Variable	Observation	Mean	Std. Dev.	Min	Max
ROA	480	0.0208	0.1122	–0.1251	0.5400
ROE	480	0.0454	0.2135	–0.3006	0.6915
Z-score	480	15.1134	12.3344	–18.3713	54.8514
CGVI	480	6.3786	1.6361	2.5923	9.2115
BLN	480	0.2289	0.2571	0.0000	0.9928
NBBK	480	8.1146	4.1613	1.0000	21.0000
SGT	480	0.4512	8.0961	–1.0000	177.3392
AGE	480	41.8542	19.0028	4.0000	81.0000
LVG	480	0.6850	0.5499	0.1370	7.9930
FSIZ	480	23.8216	1.8274	18.9719	28.5032

Source: Authors' computations based on STATA version 15 outputs.

3.3. Correlation and Multi-Collinearity Analyses

As evident in Table 6, the relationship between CGVI and FFH appears to be somewhat unfavourable, except that CGVI and Z-score have a significantly positive correlation coefficient. A similar scenario can also be between measures of bank monitoring and FFH, except for NBBK and Z-score, with a significantly positive correlation coefficient. The relationship between BLN and ROA, though negative, is statistically significant.

Table 6. Correlation Matrix

	ROA	ROE	Z-score	CGVI	BLN	NBBK	SGT	AGE	LVG	FSIZ
ROA	1.0000									
ROE	0.0935* (0.0407)	1.0000								
Z-score	0.0795 (0.0818)	–0.0025 (0.9573)	1.0000							
CGVI	0.073 (0.1100)	–0.0146 (0.7489)	0.1917* (0.0000)	1.0000						
BLN	–0.1331* (0.0035)	0.025 (0.5855)	–0.0215 (0.6390)	–0.1616* (0.0004)	1.0000					
NBBK	0.0000 (0.9993)	–0.0700 (0.1257)	0.1006* (0.0276)	–0.0038 (0.9333)	0.0052 (0.9094)	1.0000				
SGT	0.0135 (0.7679)	0.0021 (0.9638)	0.0044 (0.9229)	0.0032 (0.9447)	0.0149 (0.7451)	0.1226* (0.0072)	1.0000			
AGE	–0.1183* (0.0095)	0.0142 (0.7555)	–0.1677* (0.0002)	0.0653 (0.1529)	–0.0116 (0.7999)	–0.1463* (0.0013)	–0.0019 (0.9663)	1.0000		
LVG	–0.4334* (0.0000)	–0.1312* (0.0040)	–0.2121* (0.0000)	–0.2738* (0.0000)	0.1963* (0.0000)	0.1546* (0.0007)	0.0902* (0.0483)	0.2071* (0.0000)	1.0000	
FSIZ	0.1563* (0.0006)	–0.0980* (0.0318)	0.2481* (0.0000)	0.4691* (0.0000)	0.1235* (0.0068)	0.2351* (0.0000)	0.0644 (0.1592)	–0.1834* (0.0001)	–0.1143* (0.0122)	1.0000

Note: p-value in parentheses; * significance at p-value < 0.05. Source: Authors' computations based on STATA version 15 outputs.

From the perspective of the multi-collinearity problem, there is no pair of explanatory variables with a correlation coefficient >0.80, suggesting no case of a multi-collinearity problem. There is no evidence of a multi-collinearity problem, which is also confirmed by the results of the variance inflation factor (VIF), as presented in Table 7. In Table 7, apart from the fact that there is no mean VIF > 10, the VIF of each variable is also not >10. This confirms no sign of multi-collinearity. Also confirmed is the absence of tolerance <0.10.

Table 7. Variance Inflation Factor

Variables	CGVI model		BLN & NBBK model		CVGI with BLN & NBBK model	
	VIF	**Tolerance**	**VIF**	**Tolerance**	**VIF**	**Tolerance**
CGVI	1.27	0.7877			1.34	0.7479
BLN			1.04	0.9577	1.09	0.9196
NBBK			1.11	0.9046	1.13	0.8886
SGT	1.02	0.9791	1.02	0.9828	1.03	0.9746
AGE	1.09	0.9139	1.07	0.9331	1.12	0.8959
LVG	1.07	0.9355	1.08	0.9219	1.09	0.9158
FSIZ	1.29	0.7743	1.12	0.8925	1.33	0.7523
Mean VIF	1.15		1.07		1.16	

Source: Authors' computations based on STATA version 15 outputs.

3.4. Regression Estimates and Test of Hypotheses

The results of panel regression analyses, subsequent to several diagnostics, are presented in Tables 8, 9, and 10 to test the study's three hypotheses, respectively. As evident in Table 8, mixed results are obtained regarding how CGVI explains each measure of FFH, though its coefficient in all models is positive. However, the fact that sound CGV practices lead to better performance of a borrower firm cannot be questioned. This reflects adequately in the ROA and Z-score models, but is well-pronounced with Z-score as the dependent variable, given the statistical significance of its coefficient (p-value < 0.01). Notwithstanding the insignificance of the CGVI coefficient in the ROE model, its concurrent positive coefficient in all models is sufficient to accept the first hypothesis. Thus, there is no doubt that sound corporate governance practices in terms of higher CGVI have the capacity to improve the performance of listed non-financial firms in Nigeria in terms of accounting metrics.

The positive impact of CGVI can be said to be a reflection of the favourable behaviour of its components. This, if individually assessed, is embedded in the independence of the board through an increased number of independent and non-executive directors, improved gender diversity on the board through increased female presence among both executive and non-executive directors and the frequency of the board meetings. The explanatory power of CGVI is also reinforced, if dissected, by the alignment of owners' interests with those of managers through the opportunity for managerial shareholdings and better managerial compensation. Better CGVI with potential to reinforce better firms' financial health is also subject to the presence of institutional investors, foreign shareholders and having more members of the firm's audit committee with accounting expertise. This finding confirms the similar findings of Arora and Bodhanwala (2018), Farooq et al. (2022) and Satrio (2022), but contrary to the empirical results of Saini and Singhania (2018), Akbar et al. (2016), and to some extent, Affes and Jarboui (2023).

Similarly, in Table 9, results obtained on the influence of bank monitoring of borrower firms on their financial health are similar to those obtained in Table 8. The acceptance of the second hypothesis that bank monitoring has a positive impact on firms' financial health is evident, except that it is more pronounced if the Z-score is the only measure of FFH. Thus, there is a high probability that firms with a higher proportion of bank loans and those with multiple bank relationships are financially and economically viable. This financial viability is reflected in both BLN and NBBK as measures of bank monitoring in the Z-score model, but only with NBBK in the ROA model.

Table 8. CGVI and Firms' Financial Health

Variables	Dependent variables		
	ROA	ROE	Z-score
CGVI	0.0155* (1.68)	0.2624 (0.21)	76.6882*** (3.23)
SGT	0.0012 (1.34)	0.0555 (0.21)	1.5892 0.38
AGE	–0.0114 (–0.70)	1.1800 (0.38)	–109.7719*** (–3.28)
LVG	–0.133*** (–8.87)	–3.1752 (–0.72)	–348.7502*** (–5.12)
FSIZ	0.0055 (0.97)	–2.8163 (–1.37)	105.1209*** (3.84)
_con	0.0210 (0.13)	63.4365 (1.17)	–1958.9490*** (–t3.48)
R^2	0.2101	0.0737	0.1027
Wald	90.73 (0.0000)***	94.68 (0.0000)***	85.35 (0.0000)***
HSN	7.22 (0.2046)		
Lang-M	9.48 (0.0010)***		
LRHT	908.10 (0.0000)***	3445.90 (0.0000)***	4923.03 (0.0000)***
IND	1897.14 (0.0000)***	2447.198 (0.0000)***	3270.889 (0.0000)***
SCOR	0.268 (0.6069)	5.162 (0.0277)**	3998.52 (0.0000)***
Model type	PRE	PCSE	PCSE

Note: Regression estimates are reported with Z-statistics in parentheses. Diagnostic test statistics are reported with p-value in parentheses. Wald – Wald statistics; HSN – Hausman test statistic; Lang-M – Breusch-Pagan Langragian multiplier; LRHT – heteroscedasticity of likelihood ratio test in panel; SCOR – first-order serial correlation in panel; IND – test of independence of Breusch-Pagan Langragian multiplier. PRE – Panel random-effects model; PCSE while Prais-Winsten regression with panel-corrected standard errors (PCSE). *, **, and *** Significance at p-value < 10 %, < 5 % and < 1 %, respectively. Source: Authors' computations based on STATA version 15 outputs.

Firms with more bank loans in their liability structure are expected to be conscious of the fact that creditor banks are looking forward to the refund of the loan, including the interest falling due. This represents an alert to the borrower firms to institutionalize financial propriety, as the creditor banks have the capacity to exercise some lien as enshrined in the relevant statutes in Nigeria, including the Companies and Allied Matters Act. The level of oversight on the borrower firms by creditor banks is expected to be higher when the former has multiple bank relationships. In multiple bank relationships, borrower firms stand no chance of survival if petitions for their winding-up are filed by virtually all the lenders. Therefore, borrower firms having multiple bank relationships and a larger proportion of bank credit facilities in the liability structure of their financial position have no alternative but to give priority to the improved accounting metrics of their financial standing. The positive impact of bank monitoring on firms' financial health found in this study is not standalone evidence, as many previous studies have reported so (Kumar et al., 2021; Dina & Hermawan, 2013). However, these findings are contrary to the ones reported by Agarwal and Elston (2001) overall and Degryse and Ongena (2001) in relation to multiple bank relationships.

Table 9. Bank Monitoring and Firms' Financial Health

Variables	**Dependent Variables**		
	ROA	**ROE**	**Z-score**
BLN	0.0166 (1.26)	1.6245 (1.20)	209.8391*** (4.31)
NBBK	0.0923** (2.36)	1.5920 (0.77)	121.7541** (2.52)
SGT	0.0009*** (6.50)	0.0490 (0.19)	0.5809 (0.12)
AGE	–0.0816 (–1.35)	1.4015 (0.45)	–78.4557*** (–2.96)
LVG	–0.1164** (–2.51)	–3.3843 (–0.77)	–370.3218*** (–5.00)
FSIZ	–0.0143 (–0.56)	–2.9168 (–1.64)	107.0396*** (4.03)
_con	0.5495 (1.25)	61.5483 (1.26)	–2397.153*** (–3.81)
R^2	0.1158	0.0784	0.1119
F-stat/Wald	57.48 (0.0000)***	79.88 (0.0000)***	81.38 (0.0000)***
HSN	13.29 (0.0386)**		
LRHT	902.43 (0.0000)***	3472.59 (0.0000)***	4914.57 (0.0000)***
IND	1856.433 (0.0000)***	2447.198 (0.0000)***	3593.78 (0.0000)***
SCOR	0.224 (0.6385)	4.173 (0.0472)**	5950.022 (0.0000)***
Model type	PFE	PCSE	PCSE

Note: Regression estimates are reported with t/Z-statistics in parentheses. Diagnostic test statistics are reported with p-value in parentheses. F-stat – F-statistics; Wald – Wald statistics; HSN – Hausman test statistic; Lang-M – Breusch–Pagan Langragian multiplier; LRHT – heteroscedasticity of likelihood ratio test in panel; SCOR – first-order serial correlation in panel; IND – test of independence of Breusch–Pagan Langragian multiplier. PFE – Panel fixed-effects model (PFE); PCSE – Prais–Winsten regression with panel-corrected standard errors (PCSE). *, **, and *** Significance at p-value < 10 %, < 5 % and < 1 %, respectively. Source: Authors' computations based on STATA version 15 outputs.

In Table 10, the statistical behaviour of CGVI does not change as obtained in Table 8. This confirms its consistency while explaining FFH. As in Table 8, CGVI coefficients are significant only in ROA and Z-score models. In contrast, some changes are noticeable in the coefficients of BLN and NBBK compared to Table 9. There is a change in the coefficient of BLN, though still not statistically significant, whereas NBBK maintains its behaviour except that there is a drop in the confidence level from 95 % to 90 % in the ROA model. In the ROE model, improvement is noticeable with the BLN coefficient, but there is a slip in that of NBBK. A similar situation is obtainable in the Z-score model except that BLN becomes insignificant while NBBK reverses the sign of the coefficient. These inconsistencies might be responsible for the failure of bank monitoring to be an ingredient of the improved positive relationship between CGVI and FFH. This summarily indicates that the third hypothesis cannot be statistically validated.

Table 10. Joint Effect of CGVI and Bank Monitoring on Firms' Financial Health

Variables	Dependent variables		
	ROA	ROE	Z-score
CGVI	0.0809* (1.91)	7.6382 (1.46)	146.6427** (2.18)
BLN	–0.0033 (–0.11)	6.245964* (1.68)	9.5164 (0.07)
NBBK	0.0295* (1.76)	–0.2513 (–0.11)	–44.8974** (–1.98)
BLN×CGVI	–0.0039 (–0.33)	–2.2779* (–1.80)	61.5043 (1.25)
NBBK×CGVI	–0.0311 (–1.61)	–3.1207 (–1.27)	–59.1572** (–2.16)
SGT	0.0009 (1.03)	0.0362 (0.14)	–0.0034 (0.00)
AGE	–0.0067 (–0.41)	–0.1967 (–0.07)	–210.6504** (–1.96)
LVG	–0.1307464*** (–8.33)	–3.0577 (–0.74)	–71.9583** (–2.07)
FSIZ	0.0015 (0.25)	–2.426542 (–1.58)	98.71107** (2.33)
_con	0.0452 (0.28)	58.83143 (1.30)	–1532.243** (–2.25)
R^2	0.2275	0.0822	0.0856
Wald	101.59 (0.0000)***	97.93 (0.0000)***	91.65 (0.0000)***
HSN	16.48 (0.0576)**		
Lang-M	6.44 (0.0056)***		
LRHT	902.46 (0.0000)***	3478.34 (0.0000)***	4926.74 (0.0000)***
IND	1934.948 (0.0000)***	2137.059 (0.0000)***	2541.396 (0.0000)***
SCOR	0.456 (0.5029)	4.121 (0.0480)**	3043.346 (0.0000)***
Model type	PRE	PCSE	PCSE

Note: Regression estimates are reported with Z-statistics in parentheses. Diagnostic test statistics are reported with p-value in parentheses. Wald – Wald statistics; HSN – Hausman test statistic; Lang-M – Breusch–Pagan Langragian multiplier; LRHT – heteroscedasticity of likelihood ratio test in panel; SCOR – first-order serial correlation in panel; IND – test of independence of Breusch–Pagan Langragian multiplier. PRE – Panel random-effects model; PCSE – Prais–Winsten regression with panel-corrected standard errors (PCSE). *, **, and *** Significance at p-value < 10 %, < 5 %, and < 1 %, respectively. Source: Authors' computations based on STATA version 15 outputs.

The inability to validate the third hypothesis is subject to the negative coefficients of measures of bank monitoring interaction with CGVI across all models and regardless of measures of FFH. While the coefficient of NBBK×CGVI has a negative sign across all models, there is an exception in the behaviour of BLN×CGVI in the Z-score model with a positive coefficient but not statistically significant. This represents an indication of bank monitoring not being a favourable corporate force in the CGVI-FFH nexus, but appears more pronounced in the ROE and Z-score models, given statistically significant coefficients of BLN×CGVI and NBBK×CGVI, respectively. With the joint effect of bank monitoring and CGVI not producing the envisaged results regarding borrower firms' financial health, it is evident that activities of lender firms in monitoring the borrower firms are used only to the favour of the affected banks rather than the entire stakeholders with a keen interest in the better financial standing of these borrower firms. The inability of bank monitoring to explain the FFH favourably alongside CGVI might be attributed to the presence of borrower firms' board members on the board of lender banks. These board members, as present in both entities, may be equally powerful. This is observable from the bank-borrower relationship between Honeywell Flour Mills and First Bank Nigeria Limited. The erstwhile chairman of Honeywell (borrower firm) also doubled as the chairman of the board of the parent (FBN Holdings) of the lender bank (First Bank Nigeria Limited). This prevented the monitoring activities of the latter from being result-oriented until the intervention of the Central Bank of Nigeria.

For control variables, more statistically significant results are evident in Z-score models for all the hypotheses. While the age (AGE) and leverage (LVG) of the sampled firms appear to be inversely related to firm stability, their size (FSIZ) causes sampled firms to be more financially viable and stable. The statistically significant and negative coefficient of AGE in the Z-score model is an indication that older firms are not financially stable. Therefore, a longer existence of a firm may not transform into better financial standing. A similar scenario is also observable for AGE in both ROA and ROE models, except that the coefficients are not statistically significant. In contrast, sales growth (SGT) is a favourable tool for propelling the FFH of sampled borrower firms (except in the Z-score model of Table 10) but is only statistically significant in the ROA model of Table 9, though the coefficient is closer to zero. This gives credence to the fact that positive revenue growth enhances the stability and financial performance of a firm. The negative coefficient of LVG across all models in Tables 8, 9 and 10, where regression results are presented, shows that highly-levered firms are seldom identifiable with better financial standing. This is statistically and significantly confirmed when FFH is measured by ROA and Z-score. With FFH being made a function of borrower firms' size (FSIZ), the consideration will be given to only the Z-score as a measure of FFH. This can be observed from the statistically significant coefficient of FSIZ. Thus, there is a reflection of large firms being financially stable if the Z-score is a measure of FFH compared to ROA and ROE. In all, some statistically significant coefficients are identifiable with the study's control variables in the ROA and Z-score models compared to ROE models, as evident in Tables 8, 9 and 10.

CONCLUSIONS

Through the analysis of firm-level data of 48 listed non-financial firms amounting to 480 firm-year observations over the period 2012–2021, this study has been able to establish that good CGV practices are associated with better financial health in Nigeria. Similar scenarios are also established between bank monitoring and firms' financial health. This suggests that the activities of those charged with governance must be in tandem with the requirements of CGV codes and guidelines for a firm to be a true going concern. For bank monitoring-FFH nexus, the fact that fear of being captured by creditor banks propels borrower firms striving for better performance, favours the expectations of many stakeholders, including shareholders, towards realizing returns on their investments. However, the fact that bank monitoring, as measured by the number of bankers and proportion of bank loans, is not found to be a catalyst or corporate force in the CGVI-FFH nexus, efforts of bankers appear to be narrowed down to their personal interests. As an addendum, a better positive nexus of CGVI and bank monitoring individually, with only firm stability as a measure of FFH, may be attributable to the low level of profitability of the sampled firms. These findings beckon an increase in the enforcement of compliance with CGV codes and guidelines by the Financial Reporting Council of Nigeria and related regulatory bodies in CGV matters. As a cushion to the inability of bank monitoring to be a corporate force in the CGVI-FFH positive nexus, there is a need to look into concurrent representation of members of borrower firms' boards on the boards of creditor banks. The scenarios of the loan facility granted to Honeywell Flour Mills by First Bank Nigeria Limited and subsequent events are a typical example. These were observable in the monitoring activities made by First Bank (creditor bank), which were resisted by Honeywell (borrower firm) because the same person led the boards of the borrower firm (Honeywell) and the parent (FBN Holdings) of the creditor bank (First Bank). It is also required that the use of CGV provisions in excess of those adopted in this study (though subject to an increase in disclosures by the affected firms) is recommended for constructing CGVI by future studies in the country. This has the potential to advance the present CGVI-FFH evidence provided in this study.

REFERENCES

Affes, W., & Jarboui, A. (2023). The impact of corporate governance on financial performance: a cross-sector study. *International Journal of Disclosure and Governance*, *20*(4), 374–394. https://doi.org/10.1057/s41310-023-00182-8

Agarwal, R., & Elston, J. A. (2001). Bank–firm relationships, financing and firm performance in Germany. *Economics Letters*, *72*(2), 225–232. https://doi.org/10.1016/S0165-1765(01)00427-X

Ahn, S., & Choi, W. (2009). The role of bank monitoring in corporate governance: Evidence from borrowers' earnings management behavior. *Journal of Banking & Finance*, *33*(2), 425–434. https://doi.org/10.1016/j.jbankfin.2008.08.013.

Akbar, S., Poletti-Hughes, J., El-Faitouri, R., & Shah, S. Z. A. (2016). More on the relationship between corporate governance and firm performance in the UK: Evidence from the application of generalized method of moments estimation. *Research in International Business and Finance*, *38*, 417–429. https://doi.org/10.1016/j.ribaf.2016.03.009

Akdogan, Y. E., & Boyacioglu, M. A. (2014). The effect of corporate governance on firm performance: A case of Turkey. *International Journal of Critical Accounting*, *6*(2), 187–210. https://doi.org/10.1504/IJCA.2014.063365

Anderson, C. W., Campbell, T. L., Jayaraman, N., & Mandelker, G. N. (2003). Bank monitoring, firm performance, and top management turnover in Japan. In *Advances in Financial Economics* (pp. 1–27). Emerald Group Publishing Limited. https://doi.org/10.1016/S1569-3732(03)08001-0

Ariyono, B. D., & Setiyono, B. (2020). Does institutional ownership and bank monitoring affect agency conflicts? Evidence from an emerging market. *Journal of Indonesian Economy and Business*, *35*(3), 171–187. https://doi.org/10.22146/jieb.53110

Arora, A., & Bodhanwala, S. (2018). Relationship between corporate governance index and firm performance: Indian evidence. *Global Business Review*, *19*(3), 675–689. https://doi.org/10.1177/0972150917713812

Beiner, S., Drobetz, W., Schmid, M. M., & Zimmermann, H. (2006). An integrated framework of corporate governance and firm valuation. *European Financial Management*, *12*, 249–283. https://doi.org/10.1111/j.1354-7798.2006.00318.x

Boshnak, H. A., Alsharif, M., & Alharthi, M. (2023). Corporate governance mechanisms and firm performance in Saudi Arabia before and during the COVID-19 outbreak. *Cogent Business & Management*, *10*(1), 2195990. https://doi.org/10.1080/23311975.2023.2195990

Bryant, P., & Davis, C. (2012). Regulated change effects on boards of directors: A look at agency theory and resource dependency theory. *Academy of Strategic Management Journal*, *11*(2), 1–16. https://www.abacademies.org/articles/asmjvol11no22012.pdf

Bustaman, Y., Ekaputra, I. A., Husodo, Z. A., & Prijadi, R. (2017). Impact of interest margin, market power and diversification strategy on banking stability: Evidence from ASEAN-4. *Asian Journal of Business and Accounting*, *10*(1), 1–44. https://ajba.um.edu.my/index.php/AJBA/article/view/3474

Cadot, J. (2013). Collateral, bank monitoring and firm performance: The case of newly established wine-farmers. *Australian Journal of Agricultural and Resource Economics*, *57*(3), 344–358. https://doi.org/10.1111/1467-8489.12000

Cheung, Y. L., Connelly, J. T., Estanislao, J. P., Limpaphayom, P., Lu, T., & Utama, S. (2014). Corporate governance and firm valuation in Asian emerging markets. *Corporate Governance in Emerging Markets: Theories, Practices and Cases*, 27–53. https://doi.org/10.1007/978-3-642-44955-0_2

Chukwuajah, N. (2023, March 30). Seplat's corporate governance issues: Matters arising, Nigeria Tribune. https://tribuneonlineng.com/seplats-corporate-governance-issues-matters-arising/

Ciftci, I., Tatoglu, E., Wood, G., Demirbag, M., & Zaim, S. (2019). Corporate governance and firm performance in emerging markets: Evidence from Turkey. *International Business Review*, *28*(1), 90–103. https://doi.org/10.1016/j.ibusrev.2018.08.004

Daily, C. M., Dalton, D. R., & Cannella, A. A. (2003). Corporate Governance: Decades of Dialogue and Data. *Academy of Management Review*, *28*(3), 371–382. https://doi.org/10.2307/30040727

Dass, N., & Massa, M. (2011). The impact of a strong bank-firm relationship on the borrowing firm. *The Review of Financial Studies*, *24*(4), 1204–1260. https://doi.org/10.1093/rfs/hhp074

Davis, J.H., Schoorman, F.D., & Donaldson, L. (1997). Toward a stewardship theory of management. *Academy of Management Review*, *22*(1), 20–47. https://doi.org/10.5465/amr.1997.9707180258

Degryse, H., & Ongena, S. (2001). Bank relationships and firm profitability. *Financial Management*, *30*(1), 9–34. https://www.jstor.org/stable/3666389

Dewri, L. V. (2022). A critical assessment of interrelationship among corporate governance, financial performance, refined economic value added to measure firm value and return on stock. *Journal of the Knowledge Economy*, *13*(4), 2718–2759. https://doi.org/10.1007/s13132-021-00808-8

Diamond, D.W. (1984). Financial intermediation and delegated monitoring. *The Review of Economic Studies*, *51*(3), 393–414. https://doi.org/10.2307/2297430

Dina, A. R. A., & Hermawan, A. A. (2013). Bank monitoring as an external governance mechanism and the borrowers' firm value. *Journal of Applied Finance and Accounting*, *6*(1), 1–24. https://doi.org/10.21512/jafa.v6i1.835

Esan, O. M., Nwobu, O., Adeyanju, I. T., & Adeyanju, J. O. (2022). Firm value response to internal and external corporate governance in the Nigerian stock market. *Asian Economic and Financial Review*, *12*(4), 227–243. https://doi.org/10.55493/5002.v12i4.4465

Fama, E. F. (1985). What's different about banks? *Journal of Monetary Economics*, *15*(1), 29–39. https://doi.org/10.1016/0304-3932(85)90051-0

Farooq, M., Noor, A., & Ali, S. (2021). Corporate governance and firm performance: Empirical evidence from Pakistan. *Corporate Governance: The International Journal of Business in Society*, *22*(1), 42–66. https://doi.org/10.1108/CG-07-2020-0286

Financial Nigeria (2019, June 19). Otedola completes divestment from Forte Oil to focus on power. https://www.financialnigeria.com/otedola-completes-divestment-from-forte-oil-to-focus-on-power-sustainable-photovideo-details-1137.html

Fok, R. C., Chang, Y. C., & Lee, W. T. (2004). Bank relationships and their effects on firm performance around the Asian financial crisis: Evidence from Taiwan. *Financial Management*, *33*(2), 89–112. https://www.jstor.org/stable/3666160

FRC (2015). *Regulatory decision in the matter of financial statements of Stanbic IBTC Holdings PLC for years ended 31 December 2013 and 2014*. https://drive.google.com/file/d/0BxB1-bqcIt35aHh2OXBFNFBneWM/view?resourcekey=0-5fG0Zpp0KBwKNNBWQZ7n9A

FRC (2018). Nigerian Code of Corporate Governance 2018. https://pwcnigeria.typepad.com/files/nigerian-code-of-corporate-governance-2018-1.pdf

Guluma, T. F. (2021). The impact of corporate governance measures on firm performance: The influences of managerial overconfidence. *Future Business Journal*, *7*(1), Article 50. https://doi.org/10.1186/s43093-021-00093-6

Javaid, F. (2015). Impact of corporate governance index on firm performance: Evidence from Pakistani manufacturing sector. *Journal of Governance and Regulation*, *4*(3), 163–174. https://doi.org/10.22495/jgr_v4_i3_c1_p6

Judge, W. Q., Douglas, T. J., & Kutan, A. M. (2008). Institutional antecedents of corporate governance legitimacy. *Journal of Management*, *34*(4), 765–785. https://doi.org/10.1177/0149206308318615

Kandukuri, R. L., Memdani, L., & Babu, P. R. (2015). Effect of corporate governance on firm performance – A study of selected Indian listed companies. In *Overlaps of private sector with public sector around the globe* (Vol. 31, pp. 47–64). Emerald Group Publishing Limited. https://doi.org/10.1108/S0196-382120150000031010

Kumar, N., Vij, M., & Narain (2021). Bank monitoring as an alternative corporate force and its impact on the value of borrower firm. *Business Analyst, 42*(2), 43–64. https://www.srcc.edu/system/files/04%20Article%2003.pdf

Kusumawati, S. M., & Hermawan, A. A. (2013). The influence of board of commissioners and audit committee effectiveness, ownership structure, bank monitoring, and firm life cycle on accounting fraud. *Jurnal Akuntansi dan Keuangan Indonesia*, *10*(1), 20–39. https://doi.org/10.21002/jaki.2013.02

Limpaphayom, P., & Polwitoon, S. (2004). Bank relationship and firm performance: Evidence from Thailand before the Asian financial crisis. *Journal of Business Finance & Accounting*, *31*(9-10), 1577–1600. https://doi.org/10.1111/j.0306-686X.2004.00585.x

Mardnly, Z., Mouselli, S., & Abdulraouf, R. (2018). Corporate governance and firm performance: An empirical evidence from Syria. *International Journal of Islamic and Middle Eastern Finance and Management*, *11*(4), 591–607. https://doi.org/10.1108/IMEFM-05-2017-0107

Mathew, S., Ibrahim, S., & Archbold, S. (2018). Corporate governance and firm risk. *Corporate Governance: The International Journal of Business in Society*, *18*(1), 52–67. https://doi.org/10.1108/CG-02-2017-0024

Mishra, A. K., Jain, S., & Manogna, R. L. (2021). Does corporate governance characteristics influence firm performance in India? Empirical evidence using dynamic panel data analysis. *International Journal of Disclosure and Governance*, *18*(1), 71–82. https://doi.org/10.1057/s41310-020-00098-7

Mishra, S., & Mohanty, P. (2014). Corporate governance as a value driver for firm performance: Evidence from India. *Corporate Governance*, *14*(2), 265–280. https://doi.org/10.1108/CG-12-2012-0089

Mulyono, Suprapto, A. T., & Prihandoko, D. (2018). The effect of corporate governance and firm performance on stock price: An empirical study on Indonesia stock exchange. *Binus Business Review, 9*(1), 79–85. https://doi.org/10.21512/bbr.v9i1.1916

OECD (2023). G20/OECD Principles of Corporate Governance 2023, OECD Publishing, Paris. https://doi.org/10.1787/ed750b30-en

Ogunsanwo, O. F. (2019). Effect of corporate governance on firm performance in Nigeria. *Acta Universitatis Danubius. Œconomica*, *15*(6), 82–97.

Premium Times (2021, April 29). Why CBN sacked First Bank board – Emefiele. https://www.premiumtimesng.com/news/headlines/458476-why-cbn-sacked-first-bank-board-emefiele-full-text.html?tztc=1

Proshare (2009, July 23). $35million debts: Access bank and AP continue public war. https://www.proshare.co/articles/35million-debts-access-bank-and-ap-continue-public-war?menu=Market&classification=Read&category=General

Proshare (2017). *Skye bank Plc: One year after CBN takeover*. Vol 1, No 152. August. https://www.proshareng.com/admin/upload/reports/SkyeBankPlcOneYearAfterCBNTakeover.pdf

Saini, N., & Singhania, M. (2018). Corporate governance, globalization and firm performance in emerging economies: Evidence from India. *International Journal of Productivity and Performance Management*, *67*(8), 1310–1333. https://doi.org/10.1108/IJPPM-04-2017-0091

Salami, A. A. (2018). Determining a Better Predictor of Bank's Solvency in Nigeria: Risk-Based Capital or Risk-Independent Capital? *Acta Universitatis Danubius. Œconomica*, *14*(6), 522–546.

Salami, A. A., & Uthman, A. B. (2018). Bank capital, operating efficiency, and corporate performance in Nigeria. *Acta Universitatis Sapientiae, Economics and Business*, *6*(1), 61–87. https://doi.org/10.1515/auseb-2018-0004

Salami, A. A., & Uthman, A. B. (2022). Bank diversification strategy and discretionary provisioning in Nigeria: Do risk and IFRS adoption matter? *Babcock Journal of Accounting and Finance*, *2*(1), 1–35.

Salami, A. A., & Uthman, A. B. (2024). Bank capital, earnings smoothing and provisioning practices in Nigeria: IFRS and risk evidence. *Asian Journal of Economics and Banking*, *8*(3), 267–293. https://doi.org/10.1108/AJEB-05-2022-0058

Salami, A. A., Uthman, A. B., & Abdulrauf, L. A. O. (2021). Signaling behavior and bank provisioning policies in Nigeria: The conditional effect of the IFRS adoption and solvency risk. *Trends Economics and Management*, *15*(38), 35–59. http://doi.org/10.13164/trends.2021.38.35

Salami, A. A., Uthman, A. B., & Owoade, R. O. (2022). Managerial discretions and loan loss provisions in Nigerian banks: Empirical IFRS and risk evidence. *Central European Review of Economics and Management*, *6*(2), 71–115. https://doi.org/10.29015/cerem.943

Satrio, A. B. (2022). Corporate governance perception index and firm performance in Indonesia. *Media Ekonomi dan Manajemen*, *37*(2), 226–239. http://doi.org/10.24856/mem.v37i2.2884

SEC (2019). Press release on investigation of Oando Plc. https://sec.gov.ng/press-release-on-investigation-of-oando-plc/

SEC (2021). OANDO Plc enters into a settlement with the Securities and Exchange Commission. https://sec.gov.ng/oando-plc-enters-into-a-settlement-with-the-securities-and-exchange-commission/

Shittu, I., & Che-Ahmad, A. (2024). Corporate governance and equity value: Empirical evidence from Nigerian firms. *Corporate Governance: The International Journal of Business in Society*, *24*(2), 462–484. https://doi.org/10.1108/CG-12-2020-0579

Shrivastav, S. M., & Kalsie, A. (2017). Corporate governance disclosure index and firm performance: Evidence from NSE companies. *Business Analyst*, *38*(1), 173–213. https://www.srcc.edu/system/files/155-192%20Article-8.pdf

Vo, D. H., & Nguyen, T. M. (2014). The impact of corporate governance on firm performance: Empirical study in Vietnam. *International Journal of Economics and Finance*, *6*(6), 1–13. http://doi.org/10.5539/ijef.v6n6p1

AUTHORS' SHORT BIOGRAPHY

Abdulai Agbaje Salami is an Associate Professor in the Department of Accounting, Al-Hikmah University Ilorin, Nigeria, and has research interests in corporate reporting, corporate governance and behavioural accounting. He received the Doctorate degree (PhD) in Accounting from Kwara State University in 2021 subsequent to obtaining a Master of Science (M.Sc.) Degree in Accounting from University of Lagos in 2015. He has academic publications in reputable international and local journals including those indexed in Web of Science and Scopus. He equally has a professional touch being a member of the prestigious Institute of Chartered Accountants of Nigeria (ICAN).
E-mail: abdagbaje1@gmail.com
ORCID iD: https://orcid.org/0000-0002-6463-7997

Ahmad Bukola Uthman is a vibrant and seasoned accountant with sufficient professional (being an ICAN member) and academic touch. He is, at present, an Associate Professor in the Department of Accounting, Nile University of Nigeria, Abuja, subsequent to more than a decade of academic career at Al-Hikmah University Ilorin, Nigeria. He received a PhD in Accounting from Kwara State University in 2021. He has requisite skills in the use of accounting software and his research focus is on Corporate Reporting, Forensics, Accounting Regulation and Reforms as well as Islamic Accounting and Finance. He has expertise in both qualitative and quantitative research design with quality outputs in reputable outlets of global ranking indexed in Web of Science and Scopus among others.
E-mail: ahmad.uthman@nileuniversity.edu.ng
ORCID iD: https://orcid.org/0000-0002-4272-5574

Shukurat Funmilayo Yakubu is an accountant with a flair for academics and related activities. She received the Master of Science (M.Sc.) degree and Bachelor of Science (B.Sc.) degree in accounting in 2023 and 2017 respectively from Al-Hikmah University Ilorin, Nigeria. She is also a member of Association of National Accountants of Nigeria (ANAN). At present, she works with Federal Ministry of Labour and Productivity as an accountant under the Office of the State Controller in Ilorin, Kwara State. She looks forward to a promising career in academics upon completion of the PhD in a couple of years.
E-mail: yakubushukurat@gmail.com
ORCID iD: https://orcid.org/0009-0004-4895-3633