International Journal of Intellectual Discourse (IJID)
ISSN: 2636-4832 Volume 5, Issue 4. December, 2022

Corporate governance characteristics and cost of debt of quoted non-financial firms in Nigeria

Lawrence, U. Egbadju & Robert, B. Jacob

Department of Accounting, Federal University Otuoke, Bayelsa State, Nigeria.

Abstract

In this study, we made efforts to examine the impact which some corporate governance characteristics have on the cost of debt of selected manufacturing firms in Nigeria. The period which the study covers is from 2005 to 2020 of 76 firms the information about them is extracted from their financial statements. The results of the GMM regression reveal that institutional ownership, inventory-to-receivable as well as research and development expenses are positively and statistically significant with cost of debt; board size, board gender diversity, managerial ownership, foreign ownership, firm size, firm age and loss are negatively and statistically significant while leverage is insignificant. The study concludes with some recommendations. The implication of the study is that cost of debt is a double-edged sword which can either lead to a firm profitability or results in bankruptcy risk.

Keywords: Corporate Governance, Cost of Debt, Quoted Non-Financial Firms, Endogeneity, GMM.

1. Introduction

Business organisations are purely set up for profit motives. According to Sanyaolu and Isiaka (2022), the ultimate goal of a firm is to maximize owners' or shareholders wealth by generating enough profit and so improve their share values. However, not all business organisations are under the direct control of their owners. This separation of ownership from control gives rise to a particular problem called the agency problem due to conflict of interests with its attendant consequences or costs. Since managers may not voluntarily align their interests with those of the owners, the owners therefore designed some mechanisms or control measures to mitigate the excesses of managers.

One of such mechanisms is the use of debt financing as a monitoring device and bonding cost. The inclusion of debt in a firm's capital structure attracts various covenants, provisions and constraints which limit and restrict managers' decision-making ability with respect to investment, dividend, future debt financing and maintenance of working capital or future cash flows (Jensen & Meckling, 1976). According to Jensen and Meckling (1976), all costs associated with these covenants provisions, imposed on the firm, are called monitoring costs and cover the firm's most operating aspects incredibly detailing limitations on the projects' riskiness as well as managers' ability to take actions optimally on certain issues which may even reduce the firm's profitability. Debt financing, in the opinion of Sanyaolu and Isiaka (2022), reduces information asymmetry between firms' managers and investors (shareholders and debtholders) which in turn reduces the future cost of financing and thus maximize firms' values. There is consistent evidence

of creditors' tighter restrictions impositions on managerial discretion in cases of covenant violations which directly affect firms' behaviour in such a manner that both equity holders and debtholders tremendously benefit (Bharath & Hertzel, 2016). Apart from the above, debt capital is cheaper than equity capital since interests paid on debt issues are tax deductible and this improves both profitability and future cash flow for other investments or distributions.

The second of such mechanisms is the use of corporate governance (CG) which is a set of rules, principles, laws that guide how a company should be governed for the overall prosperity of all stakeholders. Thus, Egbadju (2022) observed that agency problem arises as a result of the separation of ownership from control and this leads to the adoption of corporate governance mechanisms by the owners in the form of broad-based rules and principles to regulate the behaviour of managers and other stakeholders. Again, Sanyaolu and Isiaka (2022) hinted that the need for CG mechanism arises due to ownership-control separation and it is meant to align the interests of directors with those of the shareholders by reducing the agency problem arises from directors' pursuit of their self-interest detrimental to those of their principals. CG is designed to hold the balance between social and economic goals; communal and individual goals for an economic, efficient and effective use of resources requiring accountability and full disclosure for the interests of individuals, corporations, and society (Sir Adrian Cadbury forward to Iskander & Chamlou, 2000). CG depicts the relationship that exists among the stakeholders of a firm with regards to the rules and laws governing the firm by ensuring that the directors act in the overall interest of the firm and to be held accountable to capital providers for use of assets in order to achieve the firm's goals (Okoye & Ofoegbu, 2006). It consists of various ways companies' goals are established and applied with respect to regulatory, social and market environment by monitoring managers' actions, companies' policies, and decisions, their representatives, and concerned stakeholders (Senbet et al., 2022). Abdullah and Tursoy (2023) confirmed that CG helps firms to get access to finance, reduce risk, work much more efficiently, and guide against mismanagement which results in the enhancement of firm performance by reducing conflicts of interest among all stakeholders.

Board size, board independence, board meetings, board gender diversity, CEO duality, managerial ownership, foreign ownership, institutional ownership, government ownership, family ownership, ownership concentration, board financial expertise, audit committee size, audit committee financial expertise, etc are some of the variables used to represent corporate governance characteristics.

We, therefore, hypothesize that the various corporate governance variables considered in this study are statistically significant with the cost of debt of the sampled firms for the period under study. Following this introductory section is section two which covers the review of related literature; section three which covers the methodology; section four which covers results discussion, test of hypotheses as well as diagnostics test; and section five which conclude the study with recommendations.

2. Review of Related Literature

2.1 Theoretical Underpinning

Agency Cost of Debt

Debts capital is captured in the capital structure of most companies globally. The reason for this is that interest on debt is tax deductible and so the cost of debt capital is lower compared to cost of equity. Thus, we have the agency cost of debt and the agency cost of equity. The agency cost of debt. The agency cost of debt arises where there is conflict of interest between the shareholders (through the decisions of management) and the bondholders or creditors. The agency costs of debt are those cost associated with actions which the creditors took to limit management decisions that would have benefited the shareholders more or at the expense of the debtholders. This is made possible because every debt capital issued has covenants which restrict management's ability to take certain actions and protect the creditors from the risk of investment loss if the company goes bankrupt or recall the debt capital if the covenants are broken (Chen, 2021). So, debt acts as a monitoring device on manager's activities to protect the business from collapse and secure the payment of the debtholders' principal and interests. In the view of Zakaria et al. (2016), the higher the debt contracted the higher the monitoring and therefore the lesser the agency cost of debt and vice versa.

2.2 Empirical Literature

Sanyaolu and Isiaka (2022) empirically tested the impact of corporate governance on cost of debt in Nigeria. The study made use of sampled 6 listed food and beverage firms for 10 years staring from 2008 to 2017 financial years making a total of 60 firm-year observations. The results of the ordinary least squares (OLS) showed that while board size and board independence positively and significantly influenced cost of debt (COD), director's remuneration negatively and significantly impacted COD while leverage was insignificant.

Nazil (2021) empirically tested whether corporate governance has affected corporate cost of debt in both Pakistan and India. The study used secondary panel data over the period from 2014 to 2017 obtained from 100 non-financial firms. The OLS regression results for Pakistan indicated that board independence was positively and significantly related with COD; audit committee independence, return on assets (ROA) and leverage (LEV) were negatively significant with COD while board size, institutional ownership, managerial ownership, CEO duality and firm size were insignificant.

Stefany and Joni (2020) studied whether there is any relationship between board characteristics and cost of debt in Indonesia. The researchers used annually sourced panel data collected over the period from 2016 to 2017 on selected firms quoted on the floor of the Indonesia Stock Exchange (IDX). The results of the Generalized Method of Moments (GMM) revealed that board size, firm size and interest cover had a negative effect on COD; LEV had a positive effect while board diversity and sales growth were insignificant.

Wahyuni (2019) attempted an empirical study of how corporate governance enhanced cost of debt in Indonesia. The study used secondary panel data over the period from 2016 to 2017 obtained from 61 firms quoted on the IDX. The OLS regression results indicated that audit committee's size and managerial ownership had a negative effect on COD while independent commissioners, institutional ownership and firm size were insignificant.

Akash and Abbas (2015) attempted an empirical examination of how corporate

governance attributes had affected the debt-equity and market value behaviour in Pakistan. Secondarily sourced panel data from 2006 to 2010 obtained on all non-financial firms quoted on the Karachi Stock Exchange (KSE) from their published reports was used. The results of the OLS showed that institutional ownership and audit committee independence were positively significant with cost of debt while ownership concentration, board independence, board size, CEO duality and shareholders activism

Gomes (2014), in this research, investigated the effect of corporate governance on the cost of debt in Portugal. Secondarily sourced panel data for 2012 only obtained on 42 firms was used. The results of the OLS showed that corporate governance index, blockholders, return on assets, long-term debt to total debt and firm size were statistically negative with cost of debt while leverage, liquidity and profit margin were statistically negative with cost of debt.

Sharbati et al. (2014) embarked on this research to investigate the effect of corporate governance on borrowing costs in Iran. The study used of secondarily sourced audited reports of 76 manufacturing firms quoted on the in Tehran Stock Exchange over the period 2008 to 2012. The results of the OLS revealed that institutional ownership and CEO duality were positively significant with COD while ownership concentration and board independence were positively significant with COD

Hajiha et al. (2013) researched to ascertain the extent to which board characteristics have affected firms' cost of debt in Iran. Secondary data collected from annual reports of 86 manufacturing firms quoted on the floor of the Tehran Stock Exchange from 2005 to2011was used. The OLS regression results showed that board independence, firm risk (BETA) and LEV positively and significantly influenced COD; board size, firm size and debt maturity negatively and significantly influenced COD while CEO duality, earnings quality and cash flow from operation were insignificant.

Schauten and van Dijk (2011) carried out a research to determine the effect of corporate governance variables on cost of debt in Europe. The study used annual secondary panel data obtained from various databases on 186 firms in 17 European countries covering the period 2001 to 2009. The OLS regression model results indicated that board size, firm size and profit margin ratio negatively and statistically impacted COD; interest coverage positively and significantly impacted COD while debt-equity ratio was insignificant.

Bradleya and Chenb (n. d.) carried out a research on the extent to which corporate governance had affected cost of debt in the United States of America. Annual secondary panel data which covered the period 2000 to 2007 collected from Compustat and other data bases on Standard & Poor 1,500 was used. The regression results of the Two-Stage Least squares (TSLS) indicated that CEO ownership, blockholder ownership, firm size and volatility negatively and statistically impacted COD; OCF and ROA positively and statistically impacted COD while board size, board independence, institutional ownership, LEV and LOSS were insignificant.

Research Gap

This research study differs from others in that it uses data for sixteen (16) years from 2005 to 2020 for 76 quoted firms which to the best of our knowledge no one has ever used. None has also used Inventory Receivable Ratio; Foreign Ownership; Research and Development Expenses as well as Net loss reported each year for the period under study. Overall, the study used more variables than any other study reviewed.

3. Methodology

3.1 Research Design

The study uses the ex-post facto research design, otherwise called the descriptive or correlational research design, to investigate the relationship, if any, between the corporate governance mechanisms and performance of 76 non-financial firms quoted on the floor of the Nigerian Exchange Group (NXG). This study uses secondarily sourced data obtained from their annual reports over the period 2005 to 2020, making a total number of 1,216 firm-year observations.

3.2 Measurement and Definitions of Variables

The measurements of the study variables are presented on Table 1 below:

Table 1: Measurement of Variables

S/N	Variables Names	Definitions	Variable Types	Measurements
1	COD3	Return on Assets	Dependent	Interest Expense /Total Interest-Bearing Capital
2	COD3(-1)	One year lag of Cost of Debt	Independent	Preceding or Last year COD
3	BODS	Board size	Independent	Total number of directors on the board
4	BODIV	Board gender diversity	Independent	A board that has at least one female on it
5	MOWN	Managerial ownership	Independent	Proportion (%) of shares own by managers
6	FOWN	Foreign ownership	Independent	Proportion (%) of shares own by foreigners
7	IOWN	Institutional ownership	Independent	Proportion (%) of shares own by institutions
8	INVREC	Inventory Receivable Ratio	Control	Total inventory to accounts receivable.
9	R&D_Sales	Research and Development Expenses to Sales	Control	R&D Expenses/Sales
10	FAGE	Firm age	Control	Number of years since incorporated

11	LEV	Leverage	Control	Total liabilities/Total Assets
12	FSIZE	Firm size	Control	Log of total assets
13	LOSS	Net loss reported each year	Control	Dummy variable which equals "1" in year a firm makes a net loss, "0" otherwise

Source: Researcher's Compilation from Literature

3.3 Model Specification

The functional equation of cost of debt to test the underlying hypotheses specified is stated as:

COD = f [COD(-1), BODS, BODIV, MOWN, FOWN, IOWN, INVREC, R&D, FAGE, LEV, FSIZE, LOSS]

(1)
The above equation is anchored on the adapted works of Sanyaolu and Isiaka (2022); Nazil (2021) and Stefany and Joni (2020).

The functional testable model will be derived as:

$$COD = \beta o + \beta_1 COD(-1) + \beta_2 BODS + \beta_3 BODIV + \beta_4 MOWN + \beta BFOWN + \beta_6 IOWN + \beta_7 INVREC + \beta_8 R\&D + \beta_9 FAGE + \beta_{10} LEV + \beta_{11} FSIZE + \beta_{12} LOSS + \varepsilon_1$$
(2).

Since we are using panel data, the model will be specified in the appropriate form as:

$$COD_{it} = \beta o + \beta_1 COD(-1)_{it} + \beta_2 BODS_{it} + \beta_3 BODIV_{it} + \beta_4 MOWN_{it} + \beta_5 FOWN_{it} + \beta_6 IOWN_{it} + \beta_7 INVREC_{it} + \beta_8 R\&D_{it} + \beta_9 FAGEE_{it} + \beta_{10} LEV_{it} \beta_{11} FSIZE_{it} \beta_{12} LOSS_{it} + \varepsilon_{1i} \quad (3)$$

Where the definitions are as stated in Table1 above.

β1, β2, β3, β4, β5, β6, β7, β8, β9, β9, β10, β11 and β12 are the beta coefficients of the independent variables. From this study, we expect β1 to β12 to be greater than zero.

ε_1 = Error Term or Stochastic White Noise

4. Results and Discussion

4.1 Dynamic Data Analysis using Generalized Method of Moments (GMM)

Generalized Method of Moments (GMM) regression estimation technique is a generic method for the estimation of statistical model parameters. GMM is designed to handle the problems of multicollinearity, heteroscedasticity and autocorrelation but especially second order correlation. Endogeneity is a term used to describe a situation whereby at least one observed or unobserved independent variable is correlated with the error term in any econometric model. Endogeneity violates a major assumption for the use of ordinary least squares (OLS) that the error term has a constant variance among the sample and it is expected to be uncorrelated with the explanatory variables. This endogeneity can be as a result of measurement error, omitted variables, simultaneity biases, reverse causality, model misspecification, inconsistent inference, common method variance (Guerrero et al., 2020). The consequence of endogeneity is that it leads to inconsistent and biased estimates if OLS method of estimation is used. The best solution is to use alternative estimation method like two-stage least squares (2SLS), three-stage least squares (3SLS),

generalized method of moments (GMM) regression estimation techniques which make use of instrumental variable Z that induces changes in the independent variable.

To identify endogeneity in our model, we run a fixed effect regression model for only the independent variables with each independent variable being a dependent variable in turn and then extract its residual. This residual variable is used to replace the main dependent variable in the original regression equation and then, rerun and observe the p-value. If the p-value of the residual variable is less than or equal to 5%, then there is an endogeneity in our model. The endogeneity test results in Table 2 below showed that none of the observed variables has endogeneity problem since their P-values are greater than 5%.

Table 2: Endogeneity Test Results

S/N	Estimated Residuals of Variables	P-Values	S/N	Estimated Residuals of Variables	P-Values
1	RES_BODS	0.5572	7	RES_R&D	0.4195
2	RES_BODIV	0.4589	8	RES_FAGE	0.6669
3	RES_ MOWN	0.8260	9	RES_FSIZE	0.3485
4	RES_FOWN	0.1239	10	RES_LEV	0.5734
5	RES_IOWN	0.9277	11	RES_LOSS	0.6032
6	RES_INVREC	0.5374			

Sources: Authors' Computations using EViews.

In spite of the fact that none of the observed variables has endogeneity problem does not preclude the fact that the model may be endogeneity-free. According to Stone and Roderick (2011), it is practically impossible to imagine any systems of variables in which endogeneity is not present and so, it is most probable to think of systems of variables as existing on a continuum of exogeneity-endogeneity. The essence of using GMM for a dynamic panel data is to practically solve the problem of endogeneity bias which simultaneously tackles unobserved heterogeneity (Chung et al., 2018).

Regression Models Estimation Results and Hypotheses Testing.

Table 3: Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
COD3(-1)	0.070616	0.000260	271.6919	0.0000
BODS	-2.782436	0.012639	-220.1476	0.0000
BODIV	-1.055612	0.021192	-49.81285	0.0000
MOWN	-0.033461	0.006868	-4.871994	0.0000
FOWN	-16.53321	0.128374	-128.7894	0.0000
IOWN	0.036810	0.007112	5.176022	0.0000
INVREC	0.163107	0.035468	4.598734	0.0000
FSIZE	-1.019160	0.026424	-38.56960	0.0000
FAGE	-0.219522	0.002145	-102.3179	0.0000
LEV	-0.003185	0.005216	-0.610634	0.5416

LOSS	-2.676937	0.066167	-40.45731	0.0000
R_D_SALES	202.0131	3.354499	60.22153	0.0000

Effects Specification

Cross-section fixed (first differences)

Mean dependent var	-0.077935	S.D. dependent var	9.100720
S.E. of regression	10.69489	Sum squared resid	112207.5
J-statistic	59.31956	Instrument rank	71
Prob(J-statistic)	0.463842		

Source: Researcher's Computations (2023) Using EViews10 Software.

Table 3 above shows the regression estimation results of the relationship between corporate governance attributes (BODS, BODIV, MOWN, FOWN, IOWN) as well as some control variables (INVREC, R&D, FAGE, LEV, FSIZE, LOSS) and cost of debt (COD) of the 76 sampled firms.

A look at the coefficient (0.070616) of COD(-1) shows that it is positively significant (p= 0.0000) at the 1% levels of significance. This result is in line with the extant literature that the dependent variable and its lag move in the same direction and must be significant. This means that the current year performance can be directly affected by previous period performance in the light of new information we were not aware of. Again, since the p-value of Sargon statistic or J-Statistic (0.463842) is higher than the threshold of 5% and 10% or even the 25% or more suggested by Roodman (2009), our model is free from the problem of instruments proliferation.

BODS relationship with COD is positively significant with a coefficient of -2.782436, a t-Statistic of -220.1476 and a p-value of 0.0000. This suggests that an increase in BODS will lead to an increase in COD. The sign or direction is contrary to our expectations but the size or magnitudes is in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between BODS and COD. This result is in line with that of Sanyaolu and Isiaka (2022) but contradicts those of Nazil (2021); Stefany and Joni (2020) and Akash and Abbas (2015)

BODIV relationship with COD is negatively significant with a coefficient of-1.055612, a t-Statistic of -49.81285 and a p-value of 0.0000. This suggests that an increase in BODIV will lead to a decrease in COD. The sign or direction is contrary to our expectations but the size or magnitude is in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between BODIV and COD. This result is not in line with any previous results but contradicts those of Stefany and Joni (2020).

MOWN relationship with COD is negatively significant with a coefficient of -0.033461, a t-Statistic of -4.871994 and a p-value of 0.0000. This suggests that an increase in MOWN will lead to a decrease in COD. The sign or direction as well as the size or magnitude are in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between MOWN and COD. This result is in line with those of Wahyuni (2019) but contradicts those of Nazil (2021).

FOWN relationship with COD is negatively significant with a coefficient of -16.53321, a t-Statistic of -128.7894 and a p-value of 0.0000. This suggests that an increase in FOWNI will lead to a decrease in COD. The sign or direction as well as the size or magnitude are in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between FOWN and COD. This result has not been previously reported with respect to the topic being considered.

IOWN relationship with COD is positively significant with a coefficient of 0.036810, a t-Statistic of 5.176022 and a p-value of 0.0000. This suggests that an increase in IOWN will lead to an increase in COD. The sign or direction is contrary to our expectations but the size or magnitude is in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between IOWN and COD. This result is in line with those of Akash and Abbas (2015) and Sharbati et al. (2014) but contradicts those of Nazil (2021) and Bradleya and Chenb (n. d.).

For the control variables, INVREC and R&D are positively significant with COD; FAGE, FSIZE and LOSS are negatively significant with COD while LEV is insignificant.

4.2 Additional Tests of Diagnostics or Robustness Checks

4.2.1 Arellano and Bond Serial Correlation Diagnostic Tests of AR (1) and AR (2).
When an estimator uses lags as instruments with the assumption that the disturbance or error term is white noise, such an estimator would produce inconsistent results if the disturbance terms are indeed serially correlated (Arellano & Bond, 1991). Thus, it is very necessary to be sure of no autocorrelation by carrying out test statistics of no serial correlation by validating the instrumental variables through a second-order residual serial correlation test (Arellano & Bond, 1991). The AR (1) may be or may not be significant but AR (2) must never be insignificant at all. AR (2) is more important in evaluating our results as it shows whether there is second-order serial correlation. If AR (2) is significant, it indicates that some of the lagged dependent variables which might be used as instrumental variables are bad instrument and thus endogenous. Since the p-values of AR (1) = 0.9652 and AR (2) = 0.9985 in Table 4 below are greater than 0.05, we then accept the null hypothesis that there is no serial correlation.

Table 4: Arellano-Bond Serial Correlation Test

Test order	m-Statistic	rho	SE(rho)	Prob.
AR(1)	-0.043634	-43539.644027	997843.378715	0.9652
AR(2)	0.001832	1463.893428	799145.753154	0.9985

Source: Researcher's Computations (2023) Using EViews10 Software.

5. Conclusion and Recommendations

This study attempts to ascertain if there is any relationship between corporate governance attributes and cost of debt of some sampled manufacturing firms in Nigeria. The results of the GMM obtained on 76 firms over the period from 2005 to 2020 reveal that institutional ownership, inventory-to-receivable as well as research and development expenses are positively

and statistically significant with cost of debt; board size, board gender diversity, managerial ownership, foreign ownership, firm size, firm age and loss are negatively and statistically significant while leverage is insignificant.

Based on the results above, the study recommends that:

1) Management should maintain current level of board size, board gender diversity, foreign ownership and managerial ownership since they are negatively related with cost of debt which eventually leads to an increase in profitability.
2) Inventory-to-receivable as well as research and development expenses should be investigated since they are positively related to cost of debt leading to reduction in profitability.
3) The level of leverage should also be investigated since it does not contribute significantly to overall reduction in cost of debt although negatively related to it.

References

Abdullah, H. & Tursoy, T. (2023). The effect of corporate governance on financial performance: Evidence from a shareholder-oriented system. *Iranian Journal of Management Studies (IJMS) 16(1):* 79-95

Akash, R. S. I. & Abbas, Z. (2015). Mediating and moderating role of financial signaling, information asymmetries of corporate governance in debt vs. equity and market value behavior, *Pakistan Journal of Commerce and Social Sciences (PJCSS), 9(2)*, 461-485.

Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. The Review of Economic Studies,58(2), *277*-297

Bharath, S. T. & Hertzel, M. (2016). External Governance and Debt Structure. Electronic copy available at: http://ssrn.com/abstract=2781350

Bradleya, M. & Chenb, D. (n. d.). Corporate governance and the cost of debt: Evidence from director limited liability and indemnification provisions. *(n. p.)*, 1-58

Chen, J. (2021). Agency cost of debt: definition, minimizing, vs. cost of equity. Retrieved from: https://www.investopedia.com/terms/a/agency-cost-of-debt.asp

Chung, D. J., Kim, B. & Park, B. G. (2018). How do sales efforts pay off? dynamic panel data analysis in the Nerlove-Arrow framework. *(n. d.),* 1-50

Egbadju, L. U. (2022). *Corporate governance mechanisms and tax avoidance of quoted non-financial firms in Nigeria.* (Doctoral thesis, Ignatius Ajuru University of Education, Rivers State Nigeria.. Unpublished)

Gomes, M. T. (20014). *The impact of corporate governance on the cost of debt: Evidence from Portuguese listed companies.* (Master thesis, University of Porto, Portugal. Open Access)

Guerrero, T. E., Guevara, C. A., Cherchi, E. & Ortúzar, J. D. (2020). Addressing endogeneity in strategic urban mode choice models. *Springer Science+Business Media, LLC,*

Hajiha, Z., Abadi, F. F. & Maher, L. G. (2013). Board structure and the cost of debt capital: Evidence of Iranian

firms. *World Applied Sciences Journal 26 (8)*, 1002-1010.

Iskander, M. R. & Chamlou, N. (2000). Corporate governance: A framework for implementation overview.*The International Bank for Reconstruction and Development (The World Bank)*

Jensen, M. C. & Meckling, W. H. (1976). Theory of the firm: managerial behavior, agency costs, and ownership structure, *Journal of Financial Economics*, 3 (4), 305-360.

Nazir, M. U. (2021). Does corporate governance practices effect on cost of debt: cross country comparison of Pakistan and India. *Jurnal Ilmiah Akuntansi dan Bisnis*, *16*(2), 187-198.

Okoye, E. & Ofoegbu, G. N. (2006). Regulation of financial reporting and corporate governance in Nigeria: A critical review**.** *Journal of G!obal Accounting, 2(1),* 1-20

Roodman, D. (2009). A note on the theme of too many instruments.*Oxford Bulletin of Economics and Statistics, 71(1)*, 135-158,
Sanyaolu, W. A. & Isiaka, M. A. (2022). Corporate governance and the cost of debt: evidence from food and beverage companies in Nigeria. Retrieved from: Electronic copy available at: https://ssrn.com/abstract=3543962

Schauten, M. B. J. & van Dijk, D. (2011). Corporate governance and the cost of debt of large European firms. Retrieved from: http://hdl.handle.net/1765/19679

Senbet, C. A., Darragh, S., & Huining, W. B. (2022). Effect of corporate governance practices on performance of manufacturing firms in Ireland. *Journal of Public Policy & Governance***,** *6(1)*, 1-10

Sharbati, A., Aslani, A. & Barandagh, M. I. (2014). Corporate governance and the cost of debt financing (borrowing) at listed companies in Tehran Stock Exchange. *International Journal of Accounting Research, 1 (8),2*4-29.

Stefany, S. & Joni, J. (2020). Board characteristics and cost of debt: Evidence from Indonesia. *Jurnal Manajemen Maranatha, 19 (2)*, 141-150.

Stone, S. I. & Roderick A. R. (2011). Social Work Research and Endogeneity Bias. *Journal of the Society for Social Work and Research, 2 (2),* 54-75.

Wahyuni P. D. (2019). Good corporate governance and firm size on cost of debt: evidence from Indonesian listed companies. I*nternational Journal of Academic Research in Accounting, Finance and Management Sciences 9 (2):* 257-265.

Zakaria, Z., Purhanudin, N., Pin, C. T. & Soon, W. C. K. (2016). Leverage and agency cost: Malaysian construction listed companies. *International Journal of Management Research & Review, 6 (12),*1654-1660