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Corporate Governance and Market Performance of Non-financial Firms in Nigeria

Abstract : This study examined the effect of corporate governance variables comprising board size, board independence, board gender diversity and board meetings on the market performance of Nigerian quoted non-financial firms from 2010 to 2019. The used ex post facto research design and the sample included eighteen (18) quoted non-financial firms. The data analysis was carried out with the aid of Generalised Method of Moment (GMM) via E-view software. The results showed that board independence and board meetings exhibited a significant effect on market performance while board size and board gender diversity displayed an insignificant effect on market performance. Therefore, it was recommended that the non-executive directors should be selected based on their experience and business knowledge expertise while regular board meetings should also be held by the board.

Keywords: Board size, Board independence, Board gender diversity, Board meetings, Performance.

GEL Classification: D53, G32, L60, M41.

1.0 Introduction

Corporate entities whether financial or non-financial are created by shareholders for the sole purpose of providing goods and/or rendering services in a bid to have something in return for their investments. Though, as the entities operate on going concern assumption, the return is not expected to flow just for a short period. Expectedly, the return in question is paid from the profit generated by the respective entity. Profitability occurs when corporate entities can generate enough revenue that is above the costs of production (Oyedokun, Sanyaolu & Bamigbade, 2017). Therefore, it is the expectation of every shareholder to receive a share of the profit periodically over a long period as this is one of the key criteria used to measure the effectiveness and efficiency of those saddled with governance responsibility. Furthermore, it should be noted that the generation of the profit is a function of the ways and manner in which the entities are being managed. Hence, the need for a sound management team that would put in place vibrant corporate governance mechanisms that could boost the performance of the entities is vital.

Ibrahim and Abdullahi (2019) stressed that better corporate governance mechanisms can improve the performance of companies while Oyedokun *et al* (2017) in their study on corporate governance submitted that the establishment of corporate governance machinery in organisations is not enough to boost their performance as well as improve value creation. However, from the perspective of agency and stakeholders' theories, the establishment of effective corporate governance machinery in any organisation is expected to guarantee a boost in corporate performance as well as shareholders' wealth maximisation.

Quantitatively, the performance of any corporate entity can be measured via financial-based or market-based yardsticks. The financial performance index comprises earnings per share, return on equity, return on assets while that of market performance consists of Tobin's Q. Tobin's Q is performance measurement that relates firms' value of equity share capital and debt to the total assets. However, the two yardsticks measure different facet of performance. Financial performance measures historical income while market performance measures the future value of firms (Munisi & Randy, 2013). Therefore, to examine the nexus between corporate governance mechanisms and the future value (performance) of corporate entities, the present study employed Tobin's Q as the proxy for market performance. Tobin's Q is measured in this study as the market value of firms' equity plus the value of total debt divided by total assets.

Furthermore, the establishment of functional corporate governance mechanisms in corporate entities is being canvassed all over the world especially after the enactment of Cadbury report in the United Kingdom, Sarbanes-Oxley Act in the United States as well as King's report in South Africa (Samak, El Said & El Latif, 2014). In Nigeria for instance, the Financial Reporting Council of Nigeria (FRCN) in exercising the power conferred on it by the Financial Reporting Council of Nigeria (FRC) Act, 2011 established the Nigerian Code of Corporate Governance in 2018 for the purpose of good corporate governance practices in all sectors of the country.

There is no doubt that the literature is filled with empirical studies on corporate governance most especially the examination of the nexus between it and corporate performance. However, there are still inconsistencies in their findings. For instance, Hussain and Hadi (2017); Oyedokun *et al* (2017); Nasiri and Ramakrishnan (2020); Al-ahdal, Alsamhi, Tabash and Farhan (2020) reported that certain corporate governance indices have a significant effect on firms' performance whereas the studies of Kamau, Machuki and Aosa (2018); Ibrahim and Abdullahi (2019); Nasiri and Ramakrishnan (2020); Al-ahdal *et al* (2020) reported an insignificant influence of some corporate governance variables on corporate performance. However, from the perspective of earnings management, Muda, Maulana, Siregar and Indra (2018) reported that good corporate governance mechanisms measured via composition of commissioners and audit committee do not affect earnings management while in contrary, Nasiri and Ramakrishnan (2020) reported that corporate governance has a significant influence on earnings management.

Also, in terms of the proxies for firms' performance, several authors like Kajola (2008); Ahmed and Hamdan (2015); Hussain and Hadi (2017); Oyedokun *et al* (2017); Aktan, Turen, Tvaronaviciene, Celik and Alsadeh (2018); Ibrahim and Abdullahi (2019); Al-ahdal *et al* (2020) have attempted to investigate the nexus between corporate governance and firms' performance via ROE, ROA, EPS, DPS and profit margin while others like Munisi and Randy (2013); Yameen, Farhan and Tabash (2019); Akbar, Hussain, Ahmad and Hassan (2019); Nasiri and Ramakrishnan (2020); Al-ahdal *et al* (2020) have examined the influence of corporate governance on firms' market performance via Tobin's Q. However, this study is novel as it attempts to investigate the effect of corporate governance variables on the market performance (Tobin's Q) of quoted Nigerian non-financial firms. Furthermore, the study focused on non-financial firms because of their indispensable roles in any economy most especially Nigeria as a developing country.

Therefore, the present study aims to examine the nexus between corporate governance mechanisms (board size, board independence, board gender diversity and board meetings) and market performance (Tobin's Q) of Nigerian non-financial firms. The study is divided into five (5) sections – section one deals with the introduction which gives the background to the study; section two is the literature review that deals with the theories underpinning the work as well as the revelations of the outcomes from previous researchers' works; section three comprises the methods employed in handling the data; section four is the analysis of the collected data as well as the discussion of findings

while section five consists of conclusion, recommendations, limitation of the study and suggestions for further studies.

2.0 Literature Review

2.1 Conceptual Review

Corporate Governance (CG) has been viewed by diverse scholars in their studies. For instance, Mohamed, Ahmad and Khai (2016) defined CG as the mechanism put in place to manage the affairs of a business to achieve prosperity and accountability process and structure that is used for directing and managing business affairs to enhance business prosperity and corporate accountability. Omokhudu and Amake (2018) defined CG as the interface among various participants - shareholders, directors, and companies' management in influencing corporate performance and the means through which it is governed. Igbekoyi and Agbaje (2018) defined CG as a regulatory tool employed to guarantee the effective protection of the interest of stakeholders. More so, the Nigerian Code of Corporate Governance, NCCG, 2018 described CG as an important mechanism for entrenching corporate accountability and business prosperity.

Above all, Al-ahdal *et al* (2020) posited that CG performs an important role in the creation of corporate philosophy of transparency, awareness and sincerity. Conceptually, CG is defined in this study as the relationship among shareholders and companies' management vis-à-vis the way the corporate entity is managed. The CG variables considered in this study comprised board size, board independence, board gender diversity and board meetings. Furthermore, it has been acknowledged in the literature that good corporate governance mechanisms are vital elements of corporate entities' performance (Kamau *et al*, 2018)

Quantitatively, performance and profitability have been used interchangeably in the literature to describe a situation where firms can generate more revenue than costs. For instance, Ibrahim and Abdullahi (2019) defined financial performance as a measure of firms' earnings and profits as well as appreciation in the value of their share prices. Oyedokun *et al* (2017) defined profitability as a situation when corporate entities can generate enough revenue that is above the costs of production. According to Owolabi and Obida (2012), profitability is the ability of firms to make a profit from their operating, investing and financing operations while Kajola, Alao, Sanyaolu and Ojurongbe (2019) defined profitability as the efficient use of organisations' resources by the management in a bid to generate appropriate revenue. Also, Naser and Mokhtar (2004) opined that the high performance of corporate entities can be described as a reflection of management's effectiveness and efficiency in the use of entities' resources thereby boosting the economy as a whole.

Therefore, as discussed earlier, the performance/profitability of any corporate entity can be financial-based or market-based. In the present study, the market-based is employed because we are interested in the future value of corporate entities. The market performance as the dependent variable is proxied via Tobin's Q and it is measured as the market value of firms' equity plus the value of total debt divided by the total asset. However, based on the extant literature reviewed, it was discovered that many variables have been used to measure CG as well as firms' performance. This study employed those variables that are relevant to its objective as proxies for both corporate governance mechanisms and firms' performance. Therefore, each of the chosen variables as well as the control variables is hereby discussed concerning firms' performance in a bid to develop a good understanding of the literature as well as the study's hypotheses.

2.2 Theoretical Framework

Discussions in this study are based on the postulations of both the agency theory and the stakeholders' theory. The agency theory dealt with the connection between the owners and the management as well as the campaign for firms' management to maximise shareholders' wealth. According to Adams (2002), the theory posits the likelihoods of the managers to only work for their interests at the detriment of the owners. However, Fama and Jensen (1983) had earlier argued that if proper governance mechanisms are not put in place

in corporate entities, there are tendencies that managers are likely to move away from shareholders' interest. More so, it was later established in the literature that good corporate governance mechanisms are vital ingredients in guaranteeing stakeholders' interests thereby create room for increased performance (Kamau *et al* 2018; Akbar *et al*, 2019; Hussain, Ahmad & Hassan, 2019).

However, despite the foundational thoughts provided by the agency theory in terms of the co-existence of the principal and agent, the theory was faulted because it failed to consider all the parties that have stakes in corporate organisations. Subsequently, in a bid to address the inherent shortcomings of agency theory, stakeholders' theory was introduced. Awotundun, Kehinde and Somoye (2011) argued that stakeholders' theory focuses on those groups whose interests are affected by the actions of a corporate entity. Therefore, the present study is underpinned by both the agency and stakeholders' theories. This is premised on the fact that performance evaluation is one of the yardsticks for measuring the efficiency of those saddled with governance responsibility. More so, performance serves varieties of purpose in any corporate entity and it is an important tool being used by all the parties that have stakes in the entity.

2.3 Empirical Review

2.3.1 Board Size and Firms' Performance

Board size is the total number of members on the board of directors of corporate entities. Board size as one of the proxies of CG has received lots of attention from scholars. However, research findings from corporate governance studies have generated different submissions on the effect of board size on firms' performance. For instance, Kajola (2008) in his work on the nexus between CG and firms' performance reported that board size displayed a significant positive effect on firms' performance (ROE). In the same vein, findings from a study conducted by Ahmed and Hamdan (2015) revealed that board size has a direct influence on firms' performance measured via ROE while Yameen *et al* (2019) stressed that the larger the size of the board of directors, the more knowledgeable and experienced the members are thereby boosting firms' performance.

However, Switzer and Tang (2009) in their study on CG and the performance of selected US firms submitted that a large board size is detrimental to firms' performance. Also, results from the study of Munisi and Randy (2013) showed that corporate governance indices have a negative association with Tobin's Q. Similarly, Shaba, Abubakar and Yaaba (2016) reported that board size exhibited an insignificant influence on market performance though, the influence was negative for MPS whereas Oyedokun *et al* (2017) reported that board size has an insignificant positive influence on both MPS and EPS but a significant positive influence on DPS. The study of Olayiwola (2018) showed that board size has a significant negative influence on net profit margin while Kamau *et al* (2018) stated that board size showed an insignificant positive influence on Kenyan financial institutions' performance. From the Nigerian environment, Ibrahim and Abdullahi (2019) reported that board size has a positive and insignificant influence on ROA.

Furthermore, findings from the study of Hussain and Hadi (2017) revealed that board size has a significant influence on firms' performance. Also, the study of Aktan *et al* (2018) reported a positive and significant influence of board size on ROA while findings from the study of Akbar *et al* (2019) revealed that board size has a positive influence on ROE and a negative effect on Tobin's Q. From Malaysia listed companies, Nasiri and Ramakrishnan (2020) reported that corporate governance mechanisms have a significant influence on ROA, ROE and Tobin's Q.

2.3.2 Board Independence and Firms' Performance

Board independence is the ratio of non-executive directors in the board size. Scholars have conducted researches on board independence as one of the proxies of corporate governance and there have been different submissions based on diverse findings emanating from the conducted studies. For instance, findings from the study of Akbar *et al* (2019) revealed that board independence has a

positive influence on ROE but a negative effect on Tobin's Q while Oyedokun *et al* (2017) reported that board independence has an insignificant positive influence on both MPS and EPS but a significant positive influence on DPS. This was further corroborated by Ibrahim and Abdullahi (2019) from where it was reported that board independence has a positive and insignificant influence on ROA. Although, Yameen *et al* (2019) maintained that investors desire a large number of independent directors in the board size. Furthermore, Aktan *et al* (2018) reported a negative and significant influence of board independence on ROE while Kamau *et al* (2018) stated that board independence displayed a positive and insignificant influence on Kenyan financial institutions' performance.

Also, Shaba *et al* (2016) reported that board composition displayed a negative effect on market performance though, the effect was significant in the case of MPS. Findings from the study of Hussain and Hadi (2017) revealed that board composition has a significant influence on firms' performance. From the Nigerian environment, the study of Olayiwola (2018) showed that board composition has a significant positive influence on net profit margin. Conversely, findings from the work of Kajola (2008) reported that board composition exhibited an insignificant effect on firms' performance (ROE and profit margin). Above all, Munisi and Randy (2013) reported a negative association between corporate governance indices and Tobin's Q while Nasiri and Ramakrishnan (2020) who worked on Malaysia listed companies reported that corporate governance mechanisms have a significant influence on ROA, ROE and Tobin's Q.

2.3.3 Board Gender Diversity and Firms' Performance

Board gender diversity is the total number of women members on the board of directors of corporate entities. Board gender diversity as one of the proxies of corporate governance has received lots of attention from scholars. However, research findings from corporate governance studies have generated different submissions on the effect of board gender diversity on firms' performance. For instance, Kamau *et al* (2018) in their study on the nexus between corporate governance mechanisms and firms' performance reported that board gender diversity exhibited an insignificant negative effect on Kenyan financial institutions' performance while findings from the study of Hussain and Hadi (2017) revealed that board gender diversity has an insignificant influence on firms' performance. However, Shaba *et al* (2016) reported that board gender diversity exhibited a positive influence on the market performance though, the influence was insignificant for MPS.

From Nigerian environment, Ibrahim and Abdullahi (2019) reported that board gender diversity has an insignificant positive influence on ROA while Nasiri and Ramakrishnan (2020) on the study conducted on Malaysia listed companies reported that corporate governance mechanisms have a significant influence on ROA, ROE and Tobin's Q. In the same vein, Munisi and Randy (2013) examined the nexus between corporate governance indices and companies' market performance (Tobin's Q). The findings revealed a negative association between corporate governance indices and Tobin's Q.

2.3.4 Board Meetings and Firms' Performance

Board meetings are the number of board meetings being held annually by the board of directors of corporate entities. Board meetings as one of the proxies of corporate governance have received lots of attention from scholars. However, research findings from corporate governance studies have generated different submissions on the effect of board meetings on firms' performance. For instance, Aktan *et al* (2018) opined that the frequency of board meetings held in an entity could serve as a yardstick for monitoring the roles of the entity's managers. Although, Francis, Hasan and Wu (2012) had earlier reported a positive influence of board meetings on firms' performance. Findings from the study of Andreou, Louca and Panayides (2014) showed a strong correlation between board meetings and firm performance while Aktan *et al* (2018) reported a significant negative influence of board meetings on ROE. From Malaysia listed companies, Nasiri and Ramakrishnan (2020) reported that corporate governance mechanisms have a significant influence on ROA, ROE and

Tobin's Q. Furthermore, Munisi and Randy (2013) examined the nexus between corporate governance indices and companies' market performance (Tobin's Q). The findings revealed a negative association between corporate governance indices and Tobin's Q.

2.3.5 Leverage and Firms' Performance

Leverage is the ratio of total debt to total assets. Akinsulire (2011) maintained that a higher degree of leverage will lead to a high risk attached to meeting fixed payment obligations. Leverage as one of the control variables of corporate governance has received lots of attention from scholars. However, research findings from corporate governance studies have generated different submissions on the effect of leverage on firms' performance. For instance, Mangalam and Govindasamy (2010) investigated the relationship between financial leverage and profitability of selected companies listed on the Bombay Stock Exchange. The authors reported that firms' financial leverage has a positive relationship with firms' EPS. Also, Ahmed and Hamdan (2015) reported that financial leverage has a direct influence on ROE but no significant influence on EPS. Aktan *et al* (2018) in their study on the nexus between corporate governance and the performance of Bahrain's financial firms reported that firm leverage displayed an insignificant negative influence on both ROA and ROE while from Malaysia listed companies, Nasiri and Ramakrishnan (2020) reported that leverage has a significant impact on ROA and Tobin's Q but an insignificant effect on ROE.

In another study conducted by Al-ahdal *et al* (2020) on the relationship between corporate governance mechanisms and financial performance of Indian listed firms. The authors employed leverage as one of the control variables and it was reported that firm leverage displayed an insignificant influence on ROE and Tobin's Q. Furthermore, Kajola *et al* (2019) in their study in which the influence of liquidity and leverage on the financial performance of Nigerian listed consumer goods firms was investigated. The authors reported that leverage has a significant influence on firms' EPS. On the nexus between leverage and liquidity management, findings from a study conducted by Alao, Okewale and Sanyaolu (2019) discovered a significant positive connection between leverage and liquidity management of Nigerian consumer goods firms. In the recent work of Alao and Sanyaolu (2020) in which the influence of leverage on the profitability of Nigerian consumer goods manufacturing firms was investigated, it was reported that leverage has a significant positive influence on EPS.

2.3.6 Firm Size and Firms' Performance

Firm size relates to the total assets of corporate entities and it has been established that there is a relationship between firm size and economies of scale of firms' operations. Hence, corporate entities that operate on a large scale are expected to operate at a lower cost of production as a result of economies of scale being enjoyed thereby increasing their performance. Firm size as one of the control variables of corporate governance has received lots of attention from scholars. However, research findings from corporate governance studies have generated different submissions on the effect of firm size on firms' performance. For instance, Lee (2009) in his study on the nexus between firm size and companies' profitability reported that firm size exhibited a significant influence on firms' profitability. Also, from Croatian listed firms, Pervan and Visic (2012) revealed that firm size has a significant but weak positive influence on firms' profitability. Furthermore, Ahmed and Hamdan (2015) reported that firm size has a direct influence on ROE but no significant influence on EPS.

Furthermore, Cahaya and Riwayati (2016) reported a significant negative relationship between firm size and ROE but a significant positive influence on ROA. Conversely, Aktan *et al* (2018) in their study on the nexus between corporate governance and the performance of Bahrain's financial firms reported that firm size displayed an insignificant negative influence on both ROA and ROE.

3.0 Methodology

The study adopted an *ex post facto* research design as the data for the study cannot be manipulated. Eighteen (18) quoted companies were selected from the Nigerian non-financial firms from 2010 to 2019

based on stratified sampling techniques employed on the companies that present their annual reports and accounts across nine sub-sectors. The data are valid and reliable as they have been audited by external auditors. The data collected were analyzed using Generalised Method of Moment (GMM) which is the appropriate estimation technique when N >T. More so, the use of GMM is in line with the work of Hussain *et al* (2019). The dependent variable (market performance) for the study was proxied with Tobin's q which is measured as the market value of firms' equity plus the value of total debt divided by total assets. This has been used by researchers like Munisi and Randy (2013); Nasiri and Ramakrishnan (2020); Akbar *et al* (2019); Al-ahdal *et al* (2020) in their studies. The study used four (4) proxies to surrogate for corporate governance. These are - board size, board independence and board gender diversity and board meetings. Also, two (2) control variables – leverage and firm size have been introduced to avoid spurious regression. Therefore, to make the results more robust and dynamic, we have introduced a period lag of Tobin's q as one of the explanatory variables of the study. This was informed by the fact that previous year Tobin's q can have a significant effect on current year Tobin's q.

Table 1: Measurement of Variables

Variables	Acronym	Measurement	Expected effect
Dependent variables			
Market Performance	Tobin's q	Firm value of equity share capital debt/total asset	
Independent variables			
Previous year Market Performance	Tobin's q (-1)	A period lag of Tobin's q	+
Board Size	BS	Total number of directors on the board	+
Board independence	BI	Non- executive directors/ total number of directors	+
Gender diversity	GD	Women directors/ total board size	+
Board Meetings	BM	Total number of board annual meetings	+
Firms' Leverage	Lev	Total debt/ total asset	+
Firms' Size	Size	Natural logarithm of firms' total assets	+

Source: Authors' Compilation (2020)

3.1 Model Specification

$$TB_{it} = \beta_0 + \beta_1 TB_{it}(-1)_{it} + \beta_2 BS_{it} + \beta_3 BI_{it} + \beta_4 GD_{it} + \beta_5 BM_{it} + \beta_6 LEV_{it} + \beta_7 Size_{it} + e_{it}$$

Where;
TB = Tobin's q
TB (-1) = Previous year firm value
BS = Board Size
BI = Board Independence
GD = Board Gender Diversity
BM = Board Meetings
Lev = Firms' Leverage
Size = Natural logarithm of firms' total assets
e = Stochastic error term

4.0 Data Analysis

4.1 Descriptive Statistics

Table 2: Descriptive Table

Table 2: Descriptive Table

	TB	BS	BI	GD	BM	LEV	LSIZE
Mean	1.603477	8.636872	0.697859	0.128481	4.648045	0.146776	17.05352
Median	0.682287	8.000000	0.666667	0.125000	4.000000	0.067826	17.16236
Maximum	11.18150	15.00000	0.928571	0.375000	7.000000	1.894162	19.77849
Minimum	0.000000	5.000000	0.375000	0.000000	2.000000	0.000000	14.32794
Std. Dev.	2.143717	2.538907	0.128380	0.123529	1.024494	0.241672	1.565989
Skewness	1.912027	0.823938	-0.087962	0.423368	0.555715	4.065347	-0.140566
Kurtosis	6.624543	2.681321	2.169852	1.925858	2.834532	25.32770	1.927482
Jarque-Bera	193.1682	21.01052	5.370705	13.95262	9.417318	3905.389	8.502867
Probability	0.000000	0.000027	0.068197	0.000934	0.009017	0.000000	0.014244
Sum	267.7807	1546.000	124.9167	22.99807	832.0000	24.36476	2830.885
Sum Sq. Dev.	762.8565	1147.397	2.933687	2.716166	186.8268	9.636898	404.6329

Source: ***Researchers' Computation (2020) Using E-views***

Table 2 above showed the statistical characteristics of the data used in the study. It showed that Tobin's q is averaged 1.60 and ranges from 0.00 to 11.18. Board size has a mean of 8.64 and ranges from 5 to 15. This maximum value exceeds the normal of 7 to 8 stipulated by Jensen (1993) for the board to be effective. Board independence is averaged 70% and is ranges from 38% to 93%. Board gender diversity is averaged 13% and varies from 0 to 38%. This confirms the low level of women inclusion on the board. The board meeting is averaged 4.65 and it ranges from 2 to 7. Leverage has a mean value of 15% and ranges from 0 to 1.9. Size has a mean 17 and varies from 14 to 20. The variables that deviated most from mean is board size (standard deviation = 2.538907) while the least deviated is gender diversity (standard deviation = 0.123529).

Table 3: Correlation Analysis

	TB	BS	BI	GD	BM
TB	1.000000				
BS	-0.107111	1.000000			
BI	-0.355437	0.090495	1.000000		
GD	0.287950	-0.089727	-0.443002	1.000000	
BM	0.145032	0.070153	0.130878	0.145679	1.000000
LEV	-0.102570	-0.104207	-0.027952	-0.167636	-0.318003
LSIZE	0.173729	0.665111	-0.127904	0.147225	-0.076663

Source: ***Researchers' Computation (2020) Using E-views***

Table 3 above showed that none of the variables has a correlation coefficient above 0.8. This indicates the absence of multicollinearity in the variables. Thus, the estimation of dynamic regression analysis is valid.

4.1 Inferential Statistics

Table 4: GMM Analysis for Corporate Governance and Market Performance

	Pooled OLS Estimation			Fixed Effect			Random Effect		
Regressors	Coeff	t-stat	p-val	Coeff	t-stat	p-val	Coeff	t-stat	p-val
C	1.005829	0.664327	0.5076	19.45055	3.578843	0.0005	1.005829	0.781720	0.4357
Tobins(-1)	0.788717	16.15353	0.0000	0.375013	5.321795	0.0000	0.788717	19.00802	0.0000
BS	-0.050751	-0.885405	0.3775	0.093366	0.909747	0.3647	-0.050751	-1.041864	0.2993
BI	-2.137916	-2.504390	0.0134	-2.741786	-1.876166	0.0630	-2.137916	-2.946941	0.0038
GD	-0.167316	-0.185327	0.8532	1.123419	0.999838	0.3194	-0.167316	-0.218076	0.8277
BM	0.217021	2.038990	0.0433	0.251385	1.792391	0.0755	0.217021	2.399300	0.0178
LEV	-0.105302	-0.261335	0.7942	-0.238252	-0.378029	0.7061	-0.105302	-0.307515	0.7589
LSIZE	0.017604	0.191328	0.8485	-1.086850	-3.265433	0.0014	0.017604	0.225138	0.8222
R-square	0.746411					0.839255			0.746411
Adj.R-square	0.733640					0.807633			0.733640
J-stat	58.44720					26.54027			58.44720
Prob J-stat	0.000000					0.000000			0.000000
Durbin Watson	1.842075					1.99308			1.842075
Hausman Test	66.964656	7	0.0000						

Source: ***Researchers' Computation (2020) Using E-views***

The summarized result of the Hausman test as shown in Table 4 above depicted that it is significant at 1%. This, therefore, means that FEGLS is better than REGLS for testing of hypotheses of the study. We therefore based the discussion of findings on FEGLS. The adjusted R^2 of 0.807633 means that 81% variation in market performance is jointly caused by a period lag of Tobin's q, the four (4) corporate governance variables and the two (2) control variables while the remaining 19% are caused by exogenous variables. The F-stat of 26.54027, which is significant at 1% (p = 0.000), depicted the fitness of the model as a whole. The Durbin-Watson value of 1.993086 means the complete absence of serial correlation as it is significantly close to the threshold of 2.

Furthermore, the table showed that a period lag of Tobin's q has a significant positive effect on current year Tobin's q. It means that last year firms' value also forms the basis of valuing a company in the current year. This may also be attributed to the fact

that when the shares of a company are highly valued in the market for a given period, the shares are in high demand by investors in the market which will, in turn, further increase future valuation. Meanwhile, board size has a positive but no significant effect on market performance. Though the positive value is in line with the *a priori* expectation of the study, however, it is insignificant. Hence, it means that with more directors with diverse business knowledge and expertise exist on the board, the performance of a firm tends to increase, though their efforts, expertise and knowledge are significantly insignificant to improve firms' performance.

Subsequently, the above result is attributable to high agency problems that are associated with larger boards where management tend to pursue strategies that better suit their interest as against that of shareholders. Also, a larger board may pay a low dividend by committing more fund on investment which tend to favour their selfish interest as directors are remunerated based on size and not on profitability. This may then in turn jeopardize future firms' value as the shareholders are triangular in their preference for dividend payment and capital gain. This outcome further corroborates the findings by Shaba *et al* (2016); Oyedokun *et al* (2017); Kamau *et al* (2018); Ibrahim and Abdullahi (2019) that reported no significant effect of board size on firms' performance while it is in disagreement with that of Kajola (2008); Olayiwola (2018); Hussain and Hadi (2017); Aktan *et al* (2018) that found significant positive/negative influence of board size on firms' performance.

Also, board independence has a significant negative effect on market performance. The finding implies that as more non-executive directors feature on the board, the lower the performance of the firms. This may be better explained that as the non-executive directors are external to the company, they may not have the better understanding of the peculiarities of the entity and this may hamper their contributions to improving the performance. This outcome agrees with the findings of Shaba *et al* (2016); Aktan *et al* (2018); Akbar *et al* (2019); Nasiri and Ramakrishnan (2020) where a significant effect of board independence on firms' performance was reported whereas the findings from the study of Kajola (2008); Oyedokun *et al* (2017); Kamau *et al* (2018); Ibrahim and Abdullahi (2019) disagreed with the outcome of this study.

As to board gender diversity, we found positive but no significant effect of board gender diversity on market performance. This means that female directors on the board try to protect the interest of the shareholders by creating better performance though, it is found to be insignificant according to the present study. Also, as women have their distinctive quality and are less prone to the ethical violation, this may assist in improving firms' performance. This may also partly be explained by the fact that there is high reported earnings quality in a board with high female involvement as they are considered to be more ethical complaint and less fraudulent compared to their male counterparts. The insignificant value may be due to a low number of females sitting on the board as shown by the mean value of gender diversity ratio and their low level of occupying strategic positions on the board. This outcome is in agreement with the findings of Shaba *et al* (2016); Hussain and Hadi (2017); Kamau et al (2018) while the outcome of the recent work of Nasiri and Ramakrishnan (2020) disagreed with our findings.

Furthermore, board meetings exhibited a significant positive effect on market performance. This means that the higher the number of meetings held by the board, the higher the firms' performance. This outcome conforms to the works of Francis *et al* (2012); Andreou *et al* (2014) that reported a significant positive effect of board meetings on firms' performance though, Aktan *et al* (2018) reported a significant negative influence of board meetings on firms' performance.

As for the control variables, it was found that leverage has an insignificant negative effect on market performance. Therefore, the higher the amount of debt capital in a firm, the lower the profitability though, not significant. This may be partly attributed to the fixed and high-interest payment which erodes firms' profitability. This further implies that the way a company is financed has no serious implications on its performance and

that as companies use more of debt capital in their capital structure, the returns available for the owners reduces. The finding conforms with the works of Ahmed and Hamdan (2015); Aktan *et al* (2018); Nasiri and Ramakrishnan (2020) which revealed an insignificant influence of leverage on firms' performance. However, the findings are in disagreement with the works of Mangalam and Govindasamy (2010); Kajola *et al* (2019); Alao and Sanyaolu (2020) where it was reported that leverage has a significant positive effect on firms' performance.

Firm size was found to have a significant negative effect on market performance. The negative effect implies that as the size of the companies increases in terms of their total assets, the performance is reduced. This might be as a result of mismanagement as well as non-availability or non-adherence to the firms' established internal control systems. This finding conforms to the results obtained in the studies of Lee (2009); Pervan and Visic (2012); Cahaya and Riwayati (2016) in which it was reported that firm size has a significant influence on firms' performance. In the contrary, the studies of Ahmed and Hamdan (2015); Aktan *et al* (2018) reported an insignificant influence of firm size on firms' performance.

5.0 Conclusion

The study investigated the effect of corporate governance variables on the market performance of eighteen (18) non-financial quoted firms in Nigeria from 2010 to 2019 using fixed effects least square technique. The corporate governance proxies used in the study comprised board size, board independence, board gender diversity and board meetings. Also, leverage and firm size were included as control variables. The findings revealed that board independence and board meetings exhibited a significant effect on market performance while board size and board gender diversity displayed an insignificant effect on market performance. Furthermore, leverage was found to have an insignificant effect on market performance whereas firm size was reported to have displayed a significant effect on market performance. Above all, the board size, board gender diversity and board meetings showed a positive effect on market performance while board independence, leverage and firm size exhibited a negative effect on market performance. Besides, a period lag of Tobin's q was found to have a significant positive effect on current year Tobin's q.

Therefore, arising from the findings, it is recommended that the non-executive directors should be selected based on their experience and business knowledge expertise. Also, they must be familiarised with the nature of the business of the firm so that they can contribute positively and significantly towards value creation and maximization of shareholders wealth. There should also be seminars and workshops programmes organised from time to time to improve their level of familiarisation with the company culture. As to the board size, the directors should also be selected based on merit and their ability to discharge their responsibility which is a function of a host of factors such as their educational background, religious values and morals, their prior experience in the business world and integrity. The ratio of female directors on the board should also be increased to at least 40% of total board size and they should be allowed to hold strategic positions. In this direction, it is expedient for regulators to compel companies to abide by laws stipulating the minimum number of female directors on the board and their participation. The board of directors should also hold regular board meetings as this has implications of improving firms' performance in Nigerian quoted non-financial firms. Also, firm assets need to be properly managed while excessive use of debt capital should be avoided by non-financial firms in Nigeria due to the attached fixed and high-interest payment.

However, despite the contribution of the study, it is not without its shortcomings. The study mainly examined how some corporate governance variables affect market performance; the future line of research should improve the scope by focusing on the attributes of the directors on the board and not just their mere numbers. In this direction, the future line of research can be directed to the study of how directors' financial expertise, age, qualification, religions and integrity affect firms' performance.

Also, similar research can be carried out in the financial sector such as banking sector, insurance companies and other non-bank financial institutions.

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