

MODERATING EFFECT OF AUDIT QUALITY ON THE RELATIONSHIP BETWEEN BOARD CHARACTERISTICS AND FINANCIAL PERFORMANCE OF LISTED INDUSTRIAL GOODS COMPANIES IN NIGERIA

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ABSTRACT

The engagement of companies into earnings management and creative accounting in recent years has contributed to financial crisis of many firms and consequently corporate failures. This incidence resulted to loss of confidence on corporate performance by both investors and other stakeholders. Hence, corporate board was regarded as a catalyst of ensuring a better performance of firms through mitigating the effect of agency problem. In this respect, this study evaluated the moderating effect of audit quality on the relationship between board characteristics and financial performance (proxied by return on asset-ROA) of listed industrial goods companies in Nigeria. For the purpose of this study, 12 out of 13 industrial goods companies listed on the Nigeria Stock Exchange whose annual accounts and reports were readily available for the study period; 2015 to 2019 were considered as the sample. The data collected was analysed using Ordinary Least Square regression where the results obtained revealed that board experience, gender diversity and chief executive officer duality have significant positive effect on ROA of the sampled firms while board size has a positive, but insignificant effect on ROA of the sampled companies. However, board independent was found to have a negative, but significant effect on the return on asset of listed industrial goods companies in Nigeria. Equally important, audit quality was found to have a significant moderating effect on board characteristics and financial performance of the sampled companies in this study. Therefore, the study recommends that, in order to enhance corporate financial

performance, there is need for proper composition of board to include board experience, gender diversity and board independent. Furthermore, the engagement of quality auditor would also enhance firm performance.

Keywords: Audit quality, Board characteristics, Financial performance, Industrial goods, Nigerian Stock Exchange

1. INTRODUCTION

Firm's financial performance is very crucial to stakeholders. It indicates the ability of the management to efficiently utilize the mobilized resources for the survival of the entity. The ability of the management to generate revenue above its expenses is very important for the assessment of the success of the firm. Therefore, firms need to grow to attract investors. Before investing in a business, investors' concern is about the financial soundness and the ability of the firm to remain profitable in the long run. The big financial turmoil witnessed by the world economic system during a couple of decades ago that resulted to failure of big firms such as WorldCom and Enron in the USA have increased public attention on the credibility and reliability of the firm's reported financial performance (Benjamin, 2009; Kyereboah-Coleman, 2008). Many industrial goods companies in Nigeria have also fought global pressure to compete by moving up-market with value-added products, increasing advanced technologies and cultivating their employees. As global competition intensifies, industrial goods companies now have a better understanding of their suppliers and customers while conducting businesses.

The Nigerian industrial goods industry is an important source of employment for individuals in Nigeria. It also has a potency to improve the economic development of Nigeria as the nation is moving towards economic diversification. The non-oil sector in Nigeria increases with 2.47% in real term of the national GDP from 2018 to 2019 (National Bureau of Statistics-NBS, 2019). For that reason, the Nigerian government must work hard to maintain, preserve and enhance the sector. To achieve this, the financial performance of the sector must be the priority of the management of the firms. Along with that, the Nigeria industrial goods firms must manage to produce higher-tech, higher-value-added and more sophisticated products (Kean & Cheah, 2000). Similarly, joint-ventures and collaborations should be made with

developed nations. However, these could not be attained without a good corporate governance system in practice (Annuar & Abdul Rashid, 2015).

Many studies have been conducted to investigate corporate governance and business performance, such as Zabri, Ahmad and Wah (2016). In 2011, the Nigerian Code of Corporate Governance (NCCG) was reviewed and updated which aim to strengthen corporate culture in Nigeria. These cultures are based on accountability and transparency to create the necessary conditions for maintaining and enhancing investors' confidence. Furthermore, the recent financial scandals in Nigeria such as the Cudbury Nigerian Plc, also led to a further need for corporate governance study. These events provide a need for the audit quality to control such type of major mishaps.

Given that many studies have been conducted in the area of board characteristics and financial performance of firms in both developed and developing nations, yet, the results of these studies remain inconsistent and disjointed. Consequently, Ho, Ahmad and Ramayah (2016) recommended that future studies in this area should introduce moderating variable to observe the effect board characteristics on financial performance of firms. Therefore, this study introduces audit quality as a moderator to observe its moderating effect on board characteristics and financial performance of industrial goods companies listed on the Nigerian Stock Exchange (NSE).

Worthy to note, the effect of board characteristics (which are integral part of corporate governance system) and financial performance of companies can be stabilized by the external audit quality. The main objective of audit function is to assists the stakeholders and company to achieve its objectives by bringing a systematic and disciplined approach to evaluate and improve the effectiveness of its risk management, internal controls and governance processes (Ganesan, Kanthan, Mustaq & Yeap, 2018). Independent from the management is the key feature of the qualitative audit function. The audit function is an important component that acts as a stakeholders' control mechanism of management in order to ensure true and fair representation of financial statement of the firms and to reduce weaknesses or deficiencies in the internal control system. Therefore, this precarious role of external audit is believed to be a means of improving economic efficiency and stakeholders' confidence in the firms through financial standard compliance.

Further, external audit is independent of management and have sufficient authority over the operations, transactions, documents and all the relevant records to perform its duties. Audit function with these attributes are expected to ascertain a true and fair view of the financial performance and position of firms and also enhance the confidence of the investors. Therefore, this study empirically examined the moderating effect of audit quality on the relationship between board characteristics and financial performance of industrial goods companies listed on the Nigerian Stock Exchange.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Board Characteristics

The term board refers to either the entire board or, where applicable for an individual institution, a committee of the board that has been delegated a particular element of board oversight. The most important corporate governance element is the board of directors because board is responsible for setting the directions and policies of the firm and evaluating the performance of management. The main objective of the board is to enhance corporate performance that will be beneficial to all stakeholders. The board shall exercise leadership, enterprise, integrity and judgment in directing the company so as to achieve continuing survival and prosperity of the company.

Accordingly, board size shall be relative to firm's size, complexity of the firm, and also shall ensure diversity of experience and gender while not compromising competence, independence, integrity and availability of members to attend and participate effectively at meetings. Therefore, on this ground, Issa (2017) contended that the corporate board of directors has a significant influence on firm performance. Therefore, this study considers board size, board independence, gender diversity, CEO duality, and board member experience as proxies for board characteristics to examine its effect on financial performance (proxied by ROA) and big 4 and audit fee as proxies for audit quality to moderate the effect of the independent variables (board characteristics on the dependent variable (ROA)).

Board Size and Financial Performance

Board size is the total number of people on the board of a firm. In the words of Levrau and Van den Berghe (2007) board size represents the number of directors sitting in

the board. Two explanations have been given to explain why board size may be related to corporate performance. The explanation takes a resource dependence view, whereby directors are seen to link the company with resources from its environment. This role is seen to be particularly important in times of corporate decline, when the necessity for corporations to co-opt resources from their environments is inevitably heightened. Companies with smaller boards are seen as being more likely to perform poorly or fail; a small number of board members is believed to indicate an inability - or lessened ability - by a firm to co-opt resources from its environment that are necessary for survival.

The studies such as Adams and Mehran (2003), Mak and Kusnadi (2005) concluded that there is a positive relationship between board size and firms' performance. Lakhali (2005) also found that the board size and business performance have a positive but weak relationship. Additionally, other studies that found a positive relationship between board size and financial performance are but not limited to: Al-Najjar (2013), Khan and Javid (2011), and Saibaba and Ansari (2013). In this respect, board size was mostly used as the indicator for monitoring and advisory roles (Augustine, 2012). However, the study of Johl, Kaur and Cooper (2015) revealed a negative relationship between board size and firm performance. Nevertheless, agency theory postulate that large board size is expected to reduce the ability of managers to dominate the board and give the company broader perspectives on the managerial issues faced by the company to maximize owner's wealth (Ahmad, Rashid & Gow, 2017).

Board Independence and Financial Performance

The Nigerian code of corporate governance (2011) viewed directors' independence as a freedom from any relationship with the company or its management which may impede its ability to make an independent judgement. Fama and Jensen (1983) discussed the concept of the reputational capital of directors. As an impact of the reputation, the independent directors contribute to company value through their reputation, visibility, and relationships. Thus, the number of directors that become independent directors depends on his or her reputation and business skills. Hence the Nigeria code of corporate governance (2011) provides that the board shall include an appropriate combination of executive and non-executive directors such that no individual or group of individuals can dominate the board's decision making.

According to agency theory, the board with a large number of non-executive directors are independent and can independently supervise and advise managers to promote the interests of shareholders (Brickley & Zimmerman, 2010). Therefore, the agency theory proposes a positive correlation between independent director and business performance. Empirically, previous studies revealed that the relationship between independent directors and firm performance are mixed (Zabri, Ahmad, & Wah, 2016). Specifically, the study conducted by Boyd, Cooperman and Wolfe (2009) found a positive and significant relationship between directors' independence and firm performance. Moreover, Chechet, Yancy, and Akanet (2013) found that board independence has a significant positive effect on the financial performance of listed Deposit Money Banks in Nigeria. However, the study of Johl, Kaur and Cooper (2015) revealed a negative relationship between board independent and firm performance. Furthermore, Farhan, Obaid, and Azlan (2017) document that board independence (composition of nonexecutive directors on the board) has significant negative effect on the performance of quoted firms in the United Arab Emirate (UAE).

Gender Diversity and Financial Performance

Board gender diversity is the total number of women board members to total directors. Over the years, there has been an ongoing discussion in press and among researchers on why there are so few women represented in company boards, and whether a higher proportion of women in top positions affect firm performance. Thus, the presence of female as a board member leads towards gender diversity. Diversification in general is to improve the value and performance of an organization as it provides new insights and perspectives (Augustine, 2012). Gender diversity is one of the most significant discussions among various scholars. A gender-diverse board facilitates diversity of voice and experiences. Thus, it enriches creativity which leads to better governance and performance. Therefore, the gender-diverse board reflects the absence of discrimination, offers a comprehensive knowledge base, and provides a set of business solutions for better board functions (Issam & Rabih, 2017).

Gender diversity and firm performance were found to be positively correlated by Erhardt, Werbel and Shrader (2003) and Adams and Ferreira (2009). However, the result of other studies such as Shrader, Blackburn and Iles (1997), and Marimuthu and Kolandaisamy (2009) revealed a negative relationship between gender diversity

and firm performance. Different methodologies, small sample sizes, short-term observations, different control variables, and failure to check whether the board diversity endogenously related to business performance, contribute to inconsistent results (Wang & Clift, 2009). However, in view of the agency theory perspective, more female directors on boards limit the financial consequences. Thus, it shows that the firms with gender-diverse board experience lower public debt (Tanaka, 2014). Tanaka (2014) argued that the monitoring and advisory capacity of the female directors is beyond reducing agency conflicts and the risk of default. Therefore, stakeholders perceive the females on boards as a form of protection of their interests.

CEO Duality and Financial Performance

Chief executive officer (CEO) duality is usually deemed to occur when the board chairman of a company is also its CEO. Those arguing in favour of board duality adopt the argument that duality leads to increased effectiveness, which will be reflected in improved company performance. Board duality is seen to result in a situation where there is a clear leader of the organization and where there is no room for doubt as to who has authority or responsibility over a particular matter. Hence the Nigerian code of corporate governance requires that the positions of the Chairman of the board and the CEO of the company shall be separate such that one person shall not combine the two positions in any company. Combining the positions of CEO and chairman by the same director would result in weakening the board's control (Boyd, 1995). Hence, to overcome agency problem, firms often opt for separating the management function (CEO) and the control function (chairperson) (Boyd, 1995). In this respect, the CEO is accountable for elaborating and executing the strategy, in a time where the board is responsible for the follow-up and control (Boyd, 1995).

Peng, Zhang and Li (2007) conducted a study on the relationship between CEO duality and firm performance in China and found that it has a positive relationship. Ramdani and Witteloostuijn (2010) conducted a study on the effect of CEO duality and firm performance for the companies in Indonesia, Malaysia, South Korea and Thailand. Their studies show a positive relationship between the CEO duality and firm performance. However, a study conducted by Ujunwa (2012) on the relationship between CEO duality and firm performance found that the CEO duality has a negative effect on firm performance based on the result from 122 companies selected

in Nigeria using the data from the year 1991 to the year 2008. Agency theory also focuses on minimizing conflicts of interest between directors and representatives (i.e. agents) and maximizing shareholder wealth. The agency theory argues that CEO authority can be exerted in the decision-making process. Therefore, the theory believes that when the CEO serves as chairman of the board, the monitoring and control of the board will be weak.

Board Member Experience and Financial Performance

Current trends in the role of corporate board members knowledge and experience, placed great importance on the competency of the board to carry out oversight function effectively, hence reduced agency problem. Therefore, the importance of skills, knowledge, experience and expertise of board members in improving the quality of decision-making cannot be over-emphasize (Mackenzie, 2007). Lack of experience, knowledge and expertise by board members tend to be an important factor leading to failure and weakness of governance in general. This led Corkery and Taylor (2012) to state that representation of board diversity in experience and skills could encourage corporate performance and reduce fraud hence decreases agency cost. Few studies such as Zabojsnikova (2016) evaluated the relationship between board characteristics and firm performance in UK found a positive and significant relationship between the board experience and firm performance. But Ida and Asunka (2016) examined the effect of board structure on the performance of firms listed on the Ghana Stock Exchange revealed a negative relationship between board member experience and firm performance.

Audit Quality and Financial Performance

Central to the advocacy of good corporate governance is, relevant and faithful presentation of firm performance by directors to the various stakeholders. Faithful presentation of firm performance is predicated upon the audit quality of the firm. When the audit quality is compromised, it seems natural to expect that unfaithfulness will be commonplace in the firm reporting system. Hence, the persistent occurrence of corporate scandals and corporate failures of modern era seems to be the natural aftermath of unfaithful firm performance reporting and absence of quality audit (Adeyemi & Fagbemi, 2010). The audit of various entities is crucial to economic development on a macro level. Therefore, audit quality simply refers to the ability of an audit exercise to detect material error and fraud leading to material misstatements

in the firm performance where such exist (De Angelo, 1981). Therefore, audit quality broadly refers to the services performed by the auditors engaged by the client firms. Higher audit quality will attract more investors and picture the good performance of the organisation. Hence stakeholders and investors will have confidence and trust in the company that engaged in higher audit quality because of reputation and experience that accounting firms with audit quality provide (Fama & Jensen, 1983). Therefore, for the purpose of this study, audit quality is used as a moderating variable of the relationship between board characteristics and financial performance of listed industrial goods companies in Nigeria. In addition, following Arezo (2011), audit quality was proxied by big 4 auditors and audit fees.

Based on the review of related empirical studies presented above, this study hypothesized that:

H₀₁: Board characteristics do not have a significant effect on financial performance of listed industrial goods firms in Nigeria.

H₀₂: Big 4 auditors' does not significant moderate the relationship between board characteristics and financial performance of listed industrial goods firms in Nigeria.

H₀₃: Audit fee does not significantly moderate the relationship between board characteristics and financial performance of listed industrial goods firms in Nigeria.

3. METHODOLOGY

The study adopted explanatory research designed and the population of the study include all the industrial goods companies listed on the Nigerian stock exchange as at 31st December, 2019. Thirteen (13) industrial goods firms were listed on the Nigerian stock exchange as at the date, out of which twelve (12) were purposively selected as sample based on the complete required data for the study. The study covered the period of five (5) years from 2015 to 2019. To achieve the objective of this study, multivariate regression analysis was employed. The models developed to evaluate the moderating effect of audit quality on board characteristics and financial performance of the firms is presented as follows:

Model 1

This model was developed to examine the effect of board characteristics on financial performance of the firms;

$$ROA_{it} = \beta_0 + \beta_1 BID_{it} + \beta_2 BSZ_{it} + \beta_3 BGD_{it} + \beta_4 BOE_{it} + \beta_5 CEOD_{it} + \mu_{it}$$

Model 2

This model was developed to examine the moderating effect of big 4 auditor on board characteristics and financial performance of the firms;

$$ROA_{it} = \beta_0 + \beta_1 BID_{it} * Big4 + \beta_2 BSZ_{it} * Big4 + \beta_3 BGD_{it} * Big4 + \beta_4 BOE_{it} * Big4 + \beta_5 CEOD_{it} * Big4 + \mu_{it}$$

Model 3

This model was developed to examine the moderating effect of audit fees on board characteristics and financial performance of the firms;

$$ROA_{it} = \beta_0 + \beta_1 BID_{it} * AFE + \beta_2 BSZ_{it} * AFE + \beta_3 BGD_{it} * AFE + \beta_4 BOE_{it} * AFE + \beta_5 CEOD_{it} * AFE + \mu_{it}$$

Table 1
Variables Identification and Measurements

Label	Variable	Description	Sources
BID	Board independent	Percentage of independent directors to total directors on board	Badrul et al (2014)
BSZ	Board size	Total number of board members	Ho et al (2016)
BGD	Board gender diversity	Proportion of female directors to total directors on board	Ashafoke & Ilaboya (2017)
BOE	Board experience	Average years of directors working experience as director of corporate board	Annuar & Abdul Rashid (2015)
CEOD	CEO duality	Dummy variable '1' if the chief executive officer is a chairperson of the board, '0' otherwise	Ashafoke & Ilaboya (2017)
ROA	Firms performance	Profit before interest and tax (PBIT) at the yearend divide by total assets	Rateb (2018)
Big 4	Audit firm size	Dummy '1' if the financial statement was audit by big 4 audit firm, '0' otherwise	De Angelo (1981)
AFE	Audit Fee	Natural logarithms of audit fees paid during the year	Delbufalo (2018)

4. RESULTS AND DISCUSSIONS

The result of the descriptive statistics is presented in Table 2 which analyses the pattern and the normality of the data collected.

Table 2
Descriptive Statistics

Variables	Minimum	Maximum	Mean	Standard Deviation	Standard Skewness	Standard Kurtosis
ROA%	0.000	57.00	31.61	43.48	0.912	-0.623
BSZ	5.00	15.00	8.85	3.08	0.739	-0.532
BID%	62.50	92.30	80.40	8.58	-0.470	-0.987
BGD%	0.00	66.70	10.80	16.81	1.423	1.474
CEOD%	0.00	30.00	8.74	12.64	0.853	-0.532
BOE	2.00	35.00	19.23	7.25	0.005	-0.019

The result in Table 2 shows the maximum percentage of financial performance (ROA) among the firms of 57.00 percent and the minimum value of 0.00 percent, which indicate a moderate range, and the average value of 31.61 percent shows a generally considerable firm performance among the firms over the period under study. In respect to board characteristics, the result revealed that, the average value of board independent is 80.0 percent with minimum value of 62.0 percent and maximum value of 92.30 percent. This implies that across the listed industrial goods firms in Nigeria, 80.0 percent of the board members were independent and non-executive directors, while the least composition of independent and non-executive directors to board members of the firm's takes 62.50 percent and the maximum composition was 92.30 percent.

The average board size is approximately 9 directors with a minimum of 5 directors and a maximum of 15. Given the mean of board independence rate of 80%; ranging from 62.5% to 92.3%, is fulfilling the requirement of the Nigerian code of corporate governance (2011) which provides that the majority of board members should be non-executive directors. More so, 10.8 percent of the board members were female with the minimum of 0.00 percent and maximum of 66.7 percent of representation. This implies that board gender diversity was fairly considered by the firms. Furthermore, a CEO duality was also fairly considered with an average of 8.74

percent; minimum of 0.00% and maximum of 30.0 percent. Furthermore, the constitution of the boards of these firms was relatively experienced directors, with an average age of directorship experience of 19 years. As this age is an indicator of the directors' experience (Anderson et al., 2004), it seems that the board members in these companies tend to master the decision-making process and the organizational strategies towards corporate performance which is reflected in the average rate of ROA of 31.61 percent across the firms.

Regarding the standard skewness statistics, the collected data are normally distributed. It can be observed that the standard skewness of each of the board characteristics do not exceed the range of ± 1.96 evidencing the normality of the data (Haniffa & Hudaib, 2006). This result is confirmed by the standard kurtosis statistics, where the standard kurtoses for all the board characteristics do not exceed the normality range of ± 3 (Haniffa & Hudaib, 2006).

Multicollinearity cases can be discovered and handled by eliminating the affected variables. To detect existence of multicollinearity among the independent variables, correlation and Durbin-Watson test statistics were used and the results are presented in Table 3.

Table 3
Correlation Matrix

Variables	BSZ	BID	BGD	CEOD	BOE
BSZ	1				
BID	0.517	1			
BGD	-0.585	-0.434	1		
CEOD	0.661	0.605	-0.406	1	
BOE	0.234	0.409	-0.137	0.311	1
Durbin-Watson test = 1.392					

The result in Table 3 shows that the data set does not present any multicollinearity problems, since the highest absolute value of 61.1% is the relationship between chief executive officer duality (CEOD) and board size (BSZ) which is well below the threshold of 80%. The absence of autocorrelation is confirmed by Durbin Watson test of 1.392 which is less than 2 (Adefila, 2014).

The result of the regression analysis conducted to evaluate the effect of board characteristics on financial performance of the listed industrial goods firms in Nigeria is presented in Table 4.

Table 4
Regression Result Model 1

Variables	Coefficient	t-value	p-value
Intercept	0.568	1.852	0.007
BSZ	0.550	1.862	0.072
BID	-0.376	2.344	0.025
BGD	0.490	2.916	0.006
CEOD	0.693	2.206	0.035
BOE	0.282	2.282	0.029
$R^2 = 0.607$		Adj. $R^2 = 0.508$	

The result of the regression analysis presented in Table 4 shows a co-efficient of determination (R^2) of 60.7 percent and Adjusted R^2 of 50.8 percent. This implies that corporate board characteristics included in the model 1 accounted for 50.8 percent variation in the financial performance of the listed industrial goods firms in Nigeria over the period under study, while 49.2 percent was explained by other factors. The p-value of the intercept is 0.007 at 5% significant level is significant implying that the model is significant and thus has a good explanatory or predictive power.

In respect to board characteristics and firm performance; the regression result in Table 4 revealed a negative but significant relationship ($r = -0.376$, p -value= 0.025) between board independence (BID) and firm performance (ROA). This implies that board independence has a negative but significant influence on financial performance of the firms over the period under study. However, the findings contradicted the result of Aanu, Odianonsen and Foyeke (2014) that board independent was positively and significantly related to firm performance. Board member experience (BOE) was found to have a positive ($r = 0.282$, p -value = 0.029) and significant relationship with financial performance. This confirmed the study of Rashidah and Fairuzana (2006) that as board member experience increases also firm performance increases too. Board gender diversity (BGD) was also found to have a positive ($r= 0.490$, p -value = 0.006) and significant relationship with financial performance; and chief executive

officer duality (CEOD) was also found to have a positive ($r = 0.693$, $p\text{-value} = 0.035$) and significant relationship with the firm's performance over the period under study at 5% significant level. But the regression result presented in Table 4 revealed that board size (BSZ) has a positive ($r = 0.550$, $p\text{-value} = 0.072$) but insignificant relationship with the firm's performance over the period under study at 5% significant level. However, it contrary to the finding of Aldamen *et al.* (2012) who concluded that there is positive and significant relationship between board size and firm performance.

The result of the regression analysis conducted to evaluate the moderating effect of big 4 auditors on board characteristics and financial performance of the firms is presented in Table 5.

Table 5
Regression Result for Model 2

Variables	Coefficient	p-value
BSZ*Big4	0.686	0.107
BID*Big4	-0.321	0.001
BGD*Big4	0.414	0.011
CEOD*Big4	0.540	0.045
BOE*Big4	0.256	0.207

The main objective of model 2 is to test the hypothesis in respect to the interactive term. The model contains the board characteristics in the framework and the moderating effect of big 4 auditors on board characteristics (BSZ, BID, BGD, CEOD, and BOE) and the financial performance of the firms. The result in Table 5 shows that BGD is positively significant at 5%, while BID is negatively significant at 5%. However, BSZ and BOE are positively insignificant at 5%. However, the big 4 auditors negatively moderate the relationship between BSZ, BGD, CEOD, BOE and the ROA at a statistically significant of 5% and positively moderate the relationship between the BID and the ROA of the listed industrial goods companies in Nigeria over the period under study.

The result of the regression analysis conducted to evaluate the moderating effect of audit fees on board characteristics and financial performance of the firms is presented in Table 6.

Table 6
Regression Result for Model 3

Variables	Coefficient	p-value
BSZ*Ln(AFE)	0.505	0.111
BID*Ln(AFE)	-0.480	0.010
BGD*Ln(AFE)	0.526	0.002
CEOD*Ln(AFE)	0.823	0.018
BOE*Ln(AFE)	0.526	0.043

The main objective of model 3 is to test the hypothesis in respect to the interactive term of audit fees and board characteristics. The result in Table 6 shows that BGD, CEOD, and BOE are positively significant at 5%, while BID is negatively significant at 5%. However, BSZ is positively insignificant at 5%. Furthermore, audit fees (LnAFE) negatively moderate the relationship between BSZ, BOE and the ROA at a statistically significant of 5% and positively moderate the relationship between the BID, BGD, CEOD and the ROA at a statistical significance of 5%.

5. CONCLUSION AND RECOMMENDATIONS

In conclusion, the overall results reinforce the study's general argument that corporate board plays an important role in determining how companies mitigate agency problems and respond to the needs and interests of various stakeholder and, consequently, in determining firm performance. The significant relationship between firm performance and most of board characteristics indicates the appropriate application of the corporate governance concepts among the listed industrial goods companies in Nigeria. In this respect, sound systems of corporate governance are serving as both monitoring and accountability mechanisms, by which managers' opportunistic behaviour is controlled and companies are made responsive to the rights and needs of shareholders, thereby reducing agency cost. Furthermore, the average rate of financial performance among the firms over the period under study is an indication that, there is a high acceptability of the need of value creation among the companies. Therefore, this study concludes that Nigerian listed companies have

realized the importance of board attributes that can maximize shareholders interest. Given the rate of moderating effect of big 4 and audit fees on board characteristics and financial performance of the firms, the study conclude that audit quality has a significant moderating effect on board characteristics and financial performance of listed companies in Nigeria.

Therefore, the study recommended that, for firms to enhance corporate performance; the majority of board members should be non-executive directors with considerable directorship experience and encouraging gender diversity, while discouraging CEO duality. Also audit quality is important which was found to have a positive moderating effect on board characteristics and financial performance of the firms. However, board size does not matter since it was found to have insignificant influence on financial performance of the firms.

REFERENCES

- Aanu, O. S., Odianonsen, I. F., & Foyeke, O. I. (2014). Effectiveness of audit committee and firm financial performance in Nigeria: An empirical analysis. *Journal of Accounting and Auditing, Research & Practice*, 2(1), 1-12.
- Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of financial economics*, 94(2), 291-309.
- Adefila, J. J. (2014). *Statistical techniques for data analysis: Demystify presentation* (1st ed.). BWright Integrated Ltd, Knogi-Bodija, Ibadan-Nigeria.
- Adeyemi, S. B., & Fagbemi, T. O. (2010). Audit quality, corporate governance and firms characteristics. *International Journal of Business and Management*, 5(5), 168-179.
- Ahmad, N. B. J., Rashid, A., & Gow, J. (2017). Board independence and corporate social responsibility (CSR) reporting in Malaysia. *Australasian Accounting Business & Finance Journal*, 11(2), 21-30.
- Al-Najjar, B. (2013). Corporate governance, tourism growth and firm performance: Evidence from publicly listed tourism firms in five Middle Eastern countries. *Tourism Management*, 1-10.
- Annur, H. A., & Abdul Rashid, H. M. (2015). An investigation of the control role and effectiveness of independent non-executive directors in Malaysian public listed companies. *Managerial Auditing Journal*, 30(6/7), 582-609.

- Arezoo, A. C. (2011). Review of studies on audit quality. *International conference on humanities, society and culture*, Singapore IACS 17 Press.
- Ashafoke, T.O., & Ilaboya, J. (2017). Board characteristics and environmental disclosure in Nigerian Banking Sector. *ICAN Journal of Accounting and Finance*, 6(1), 87-102.
- Augustine, U. (2012). Board characteristics and the financial performance of Nigerian quoted firms. *The International Journal of Business in Society*, 12(5), 656-674.
- Benjamin, I. E. (2009). Corporate governance structure and firm performance in developing economies: evidence from Nigeria. *Corporate Governance: The international journal of business in society*, 9(3) 231 – 243.
- Boyd, B. K. (1995). CEO duality and firm performance: A contingency model. *Strategic Management Journal*, 16(4), 301-312.
- Brickley, J. A., & Zimmerman, J. L. (2010). Corporate governance myths: Comments on Armstrong, Guay, and Weber. *Journal of Accounting and Economics*, 50(2-3), 235-245.
- Byrd, J., Cooperman, E. S., & Wolfe, G. A. (2009). Another look at director independence. *International Review Account Bank Finance*, 1, 1-16.
- Chechet, L. I., Yancy Jnr, F. S., & Akanet, S. (2013). Impact of Internal Governance Mechanisms on Corporate Performance in Deposit Money Banks in Nigeria. *International Journal of Arts and Commerce*, 2(8), 35-46.
- Corkery, J. F., & Taylor, M. (2012). The gender gap: A Quota for women on the board. *Corporate Governance Journal*. Retrieved from <http://epublications.bond.edu.au/cgej/27>
- De Angelo, L. E. (1981). Auditors' size and audit quality. *Journal of Accounting and Economics*, 3(3), 21-32.
- Delbufalo, E. (2018). Agency theory and sustainability in the global supply chain. *Academy of Management Journal*, 42(6), 674-686.
- Erhardt, N. L., Werbel, J. D., & Shrader, C. B. (2003). Board of director diversity and firm financial performance. *Corporate Governance: An International Review*, 11(2), 102-111.
- Fama, E. F., & Jensen, M. C. (1983). The separation of ownership and control. *The Journal of Law and Economics*, 26, 301–325. doi:10.1086/467037.

- Farhan, A., Obaid, S. N., & Azlan, H. (2017). Corporate governance effect on firms' performance—evidence from the UAE. *Journal of Economic and Administrative Sciences*, 33(1), 66-80.
- Haniffa, R. M., & Hudaib, M. (2006). Corporate governance structure and performance of Malaysian listed companies. *Journal of Business Finance & Accounting*, 33(7/8), 1034-1062.
- Ho, T. C. F., Ahmad, N. H., & Ramayah, T. (2016). Competitive capabilities and business performance among manufacturing SMEs: Evidence from an Emerging Economy, Malaysia. *Journal of Asia-Pacific Business*, 17(1), 37-58. doi:10.1080/10599231.2016.1129263.
- Ida, G. A., & Asunka, B. A. (2016). The effect of audit committees on the performance of firms listed on the Ghana Stock Exchange. *Journal of Business and Management (IOSR-JBM)*, 18(11), 55-62.
- Issam, J. M., & Rabih, N. (2017). Board gender diversity and firms' equity risk: Equality, diversity and inclusion. *An International Journal*, 36(7), 590-606. doi:10.1108/EDI-02-2017-0044.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- Johl, S. K., Kaur, S., & Cooper, B. J. (2015). Board characteristics and firm's performance: Evidence from Malaysian public listed firms. *Journal of Economics, Business and management*, 3(2), 239-243.
- Kean, O. Y., & Cheah, K. G. (2000). Corporate governance codes: A comparison between Malaysia and the UK. *Corporate Governance: An International Review*, 8(2), 125–132.
- Khan, M., & Javid, A. (2011). Determinants of board effectiveness: Logit model ferheen kayani. *Interdisciplinary Journal of Contemporary Research in Business*, 3(2), 1970-1981.
- Kyereboah-Coleman, A. (2008). CORPORATE GOVERNANCE AND FIRM PERFORMANCE IN AFRICA: A DYNAMIC PANEL DATA ANALYSIS. *Journal for Studies in Economics & Econometrics*, 32(2), 1-24.
- Lakhal, F. (2005). Voluntary earnings disclosures and corporate governance: Evidence from France. *Review of Accounting and Finance*, 4(3), 64-85.

- Levrau, A., & Van den Berghe, L. A. (2007). Corporate governance and board effectiveness: Beyond formalism. *ICFAI Journal of Corporate Governance*, 6(4), 58-85.
- MacKenzie, C. (2007). Boards, incentives and corporate social responsibility: The Case for a change of emphasis. *Corporate Governance: An International Review*, 15(5), 935-943.
- Mak, Y. T., & Kusnadi, Y. (2005). Size really matters: Further evidence on the negative relationship between board size and firm value. *Pacific-Basin Finance Journal*, 13(3), 301-318.
- Peng, M. W., Zhang, S., & Li, X. (2007). CEO duality and firm performance during China's institutional transitions. *Management and Organization Review*, 3(2), 205-225.
- Ramdani, D., & van Witteloostuijn, A. (2009). Board independence, CEO duality and firm performance: A quantile regression analysis for Indonesia, Malaysia, South Korea and Thailand.
- Rateb, M. A. (2018). Audit committee effectiveness and company performance: Evidence from Jordan. *Accounting and Finance Research*, 7(2), 48-60.
- Saibaba, M. D., & Ansari, V. A. (2013). Audit committees, board structures and firm performance: A panel Data Study of BSE 30 Companies. *The IUP Journal of Accounting Research and Audit Practices*, 2, 19-29.
- Shukeri, S. N., Shin, O. W., & Shaari, M. S. (2012). Does board of director's characteristics affect firm performance? Evidence from Malaysian public listed companies. *International Business Research*, 5(9), 120.
- Tanaka, T. (2014). Gender diversity in the boards and the pricing of publicly traded corporate debt: Evidence from Japan. *Applied Financial Economics*, 24(4), 247-258.
- Ujunwa, A. (2012). Board characteristics and the financial performance of Nigerian quoted firms. *Corporate Governance: The international journal of business in society*, 12(5), 656-674.
- Wang, Y., & Clift, B. (2009). Is there a "business case" for board diversity? *Pacific Accounting Review*, 21(2), 88-103.
- Weir, C., & Laing, D. (2001). Governance structures, director independence and corporate performance in the UK. *European Business Review*, 13(2), 86-95.

- Zábojníková, G. (2016). The audit committee characteristics and firm performance: Evidence from the UK. M.Sc Dissertation Department of Finance, Porto University, UK.
- Zabri, S. M., Ahmad, K., & Wah, K. K. (2016). Corporate governance practices and firm performance: Evidence from top 100 public listed companies in Malaysia. *Procedia Economics and Finance*, 35, 287-296.