THE MODERATING EFFECT OF INSTITUTIONAL QUALITY ON CORPORATE GOVERNANCE AND FINANCIAL STATEMENT FRAUD IN AN EMERGING ECONOMY

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Abstract: *The study examines corporate governance and financial statement fraud: the moderating role of institutional quality. The study adopted the ex-post facto research design and a sample of 75 non-financial firms listed on the Nigerian Exchange Group (NGX) was used for the study. The binary regression technique was adopted. The results reveal that, board size has shown a positive effect on Financial Statement Fraud. Board independence is negative both in the response and selection equations. Foreign Ownership is negative both in the response and selection equation and significant, and Finally, the study recommends that listed firms may need to cut down their board sizes. Although there is still no consensus on what an optimal board size should be, the study is of the opinion that firms with board sizes above the industry average should look at bringing down their board sizes and also corporate boards should increase their board independence levels by bringing in more non-executive directors. On the part of foreign ownership presence in boards, they are indeed diverse in line with the resource-based view theory and this study confirms their effectiveness in constraining financial statement fraud. Hence it is recommended that companies should seek and maintain some level of foreign ownership presence in their boards.*

Keywords: Financial Statement Fraud; Board Independence; Corporate Governance; Foreign Ownership; Institutional Quality, board size.

JEL Classification: M4, M42, G32.

1. Introduction

Corporate fraud presents a major danger to shareholders, lenders and even to the survival of corporations. Financial statement fraud differs from other frauds in the corporate environment in that, instead of being the victim or perpetrator of fraud, the company is often the instrument of fraud. The Price Water House Coopers (PwC, 2017) crime survey revealed that financial statement fraud remains a serious problem in every country around the world and tops the list of five most common frauds committed globally. Following the fraud scandals in large companies, (Enron, WorldCom, Xerox, Lehman Brothers and AIG) concerns about fraud in general and fraudulent financial reporting in particular has increased (Kaseem and Higson, 2012). The 2018 Report published by the Association of Certified Fraud Examiners (ACFE), estimated the cost of fraud to be around 5% of businesses' annual revenues globally, this might well be translated as $3.7 trillion of economic losses

* Corresponding author: H.E. Monye-Emina
Cite as:
Sule, I.I., Monye-Emina, H.E., 2022. The Moderating Effect of Institutional Quality on Corporate Governance and Financial Statement Fraud in an Emerging Economy. *Oradea Journal of Business and Economics,* 7(2), pp. 49– 62, http://doi.org/10.47535/1991ojbe156.

due to fraud. Fraudulent Financial Statements involve the intentional misstatement of an organization's financial results of economic position (Anand. et al., 2015).
Corporate governance has gained significance in attempting to explain the conduct of the board and the consequences it may bring for the incidence of misconduct in financial statements. However, there is a large methodological diversity, and research in this field and still very undecided and far from consensus on the relationship between board characteristics and the possibility of fraud. Chen, Firth, Gao and Rui (2006) concluded that board size is not relevant in deterring fraud, and this is in line with Wardhani, (2015) and Carcello and Nagy (2004). Their study is also consistent with Farber (2005) Italy, Bradbury, Mak and Tan (2006) United Kingdom and Mohd Salleh and Othman (2016) Malaysia. Xie,et al. (2003), on the other hand argued that, bigger board correlate with less risk of fraud for companies in the UK and this is in line with Sharma (2014) for companies in Australia. Regrettably, in virtually all of the studies linking corporate governance and financial statement fraud, none has employed the effect of institutional quality in the relationship between governance and financial statement fraud. Consequently, this study addresses this gap by providing insights into the level of institutional quality, using the World Bank development indicators and how it influences the nexus between governance and financial statement fraud in Nigeria. Institutional Quality (IQ) is deemed an important consideration hinges on Aggarwal, et al., (2009), IQ and Firm-level governance could be substitutes, but also complements in mitigating financial statement fraud. In the case where IQ and firm level governance are substitutes, firms will seek to develop very strong and robust governance framework in environments of weak IQ (Aggarwal, et al., 2009). The level for institutional quality for Nigeria stands at a low point and there is need to examine if there are empirically valid connections between this and the weakness or strength of corporate governance in mitigating financial statement fraud in the Nigerian environment.

2. Literature Review

2.0 Conceptual Review

2.1 Financial Statement Fraud

Financial statement manipulation causes the largest damage at the business level and is directed at distorting the financial reality, gaining such gains or concealing future damages or unfavorable effects. As shown in figure 2.1 below, misstatements in financial statements, which are accounting irregularities, appear across an error-fraud continuum. That means accounting irregularities are part of a continuum from low levels of non-compliance with standards to outright fraudulent financial reporting (Smaili and Labelle 2009). At one end of the spectrum, accounting irregularities are errors caused by unintentional mistakes or errors causing material or immaterial misleading information. Financial restatement is usually the consequence for a listed company that has submitted such a report found to be with errors. At the other end of the spectrum, accounting irregularities are known as fraud when it involves misappropriation of assets, fraudulent reporting and to some extent earnings management and creative accounting. The key factor separating mistake from embezzlement is the accidental or deliberate underlying activity resulting in accounting irregularities. Accidental mistake is the smallest degree of accounting abnormality in financial reports (AICPA, 2011).

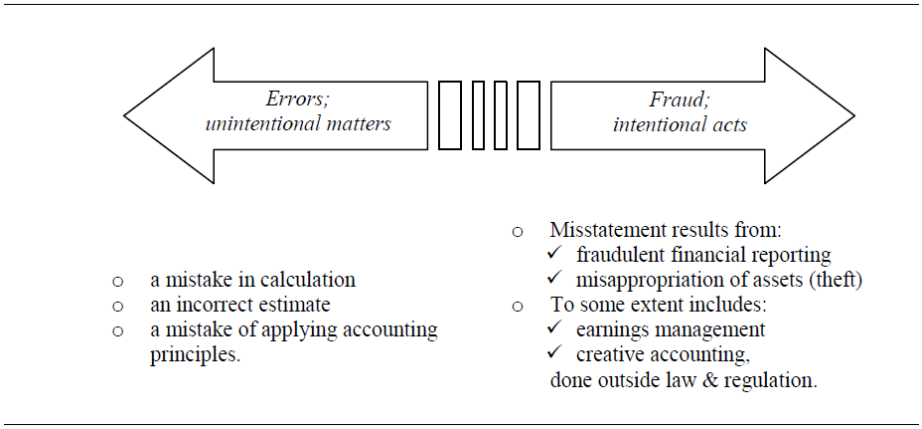

Figure 1: Spectrum of accounting fraud
Source: AICPA (2011)

While there are several definitions and views on fraud in the literature, we align ourselves in this research to the view of unfair or illegal advantage in the conceptualization of fraud. This definition is in line with the definition of AICPA (2007), where fraud and fraudulent financial reporting are seen as fraudulent acts which cause material mistakes. We agree because the focus of the study is on the financial declaration or reporting fraud.

2.1.1 Board Size and financial Statement Fraud

In order for a board to oversee and track management adequately, the number of board members should be seven or eight (Jensen, 199; Lipton and Lorsch, 1992). The lower the number of board directors (less than 10), the more effective the board is in carrying out its role (Yermack, 1996). Compatible with Uzun, Szewczyk and Varma (2004), Carcello and Nagy (2004), Farber (2005), Bradbury, et al., (2006), and Smaili and Labelle (2006), Chen et al. (2006) researched corporate fraud in China and found that board size is not important in deterring fraud. Beasley (1996), however, discovered that a wider board raises the risk of financial statement fraud as it lowers and monitors' efficacy. On the other hand, Xie et al., (2003) found that its correlate with fewer earnings control practices to have a greater board. The findings attribute are clearly mixed. Between seven and nine members are effective according to the Malaysian Code of Corporate Governance (MCCG, 2011), but this depends on the operation and scale of the company. Because there is no known perfect number. Studies of financial statement fraud in three sectors conducted by Beasley, Carcello, Hermanson and Lapides (2000), (technology, health care and financial services). shows that corporate governance differed between fraudulent companies and non-fraudulent companies.

2.1.2 Board Independence and financial Statement Fraud

Mixed findings have been demonstrated from research on the usefulness of independent board members in minimizing earnings management. Larger board help minimize incentives to manage profits, contributing to better oversight (Borokhovich, Parrino and Trapani, 2002; Mulgrew and Forker, 2006). Lipton and Lorsch (2002) observed that greater decision control and oversight of management operations would be supported by a board with a higher number of independent directors. They showed that the disparity between external and independent managers had no effect on research and that non-fraudulent organizations had slightly greater numbers of external managers. Xie et al., (2003: 6) found a negative link between external managers' percentage and earnings management practices that

increases management power over earnings by increasing the external director's percentage. Petra (2005) has found that external and autonomous administrators are improving corporate governance. Beasley (1996) and Saksena (2003) considerably lowered the probability of financial statement manipulation to include more independent board directors. A higher proportion of independent managers will boost compliance oversight and supervision and reduce the risk of organizational theft.

2.1.3 Foreign Ownership and Financial Statement Fraud

The foreign ownership is a type of ownership whereby the companies have certain percentage of foreign investors that invest in the domestic market. Foreign investors are typically mutual funds or other institutional investors (Dahlquist and Robertsson, 2001). Prior research provides evidence that foreign investors can enhance firm value through spreading positive spillover effects (Ferreira and Matos, 2008:3), through reducing firms' cost of capital (Bekaert and Harvey, 2000), through fostering appropriate investment in R and D and through initiating changes in corporate governance practices of local firms (Gillan and Starks, 2003; Ferreira, Massa and Matos, 2010). A number of studies have examined the relationship between foreign ownership and financial statement fraud. For example, Shan, Graves and Hassan (2013) examined corporate governance practices in Malaysia, where the increasing incidence of fraud suggests a lack of adequate corporate governance systems in Malaysian. Using an unbalanced data set comprising 200 companies representing a total of 579 firm-year observations, the study examines the effects of internal corporate governance mechanisms on the occurrence of fraud. Specifically, it looks at the of effects ownership structure on the occurrence of fraud in Malaysian from 2007 to 2009. The findings indicate that foreign ownership revealed a negative correlation with the occurrence of fraud. The study though provided no justification for the observed relationship.

2.1.4 The Mediating Effect of Institutional Quality

The relationship that exists between Corporate Governance and Institutional quality and the implications that this may have on financial fraud in developing economies is still topical. Shleifer and Wolfenzon, 2002; Wu, Johan and Rui, (2009) has provided evidence that IQ can assist in shaping the CG methods internally in related firms. The findings of Aggarwal, et al., (2009) are supported by Dx.doidge, Karolyi and Stulz (2007) who studied the role of country characteristics in firm-level governance. To do this, they regress several important country characteristics on different CG indices for a huge sample of firms. One of these characteristics is the shareholder protection. Shareholder protection has relationship with Firm-level CG that is significant and positive and this is some indication of complementarity between country-level Investor protection and firm-level Governance quality

In contrast, Chen et al. (2006) is in the line with La Porta, et al., (1999) and Wu, et al., (2009) who examined the relationship between property right protection, and the board structure in China. They opined that weak property right protection positively relates with the number of independent directors on the board. With a rise in the need for monitoring management and strategic advice in weak institutional environments, more board members are required (Chen, et al., 2006: 11).and concluded that property right protection and CG are substitutes, which contradict the study that provide a complementary relationship (Aggarwal, et al., (2009). Scholars like Lang, Lins and Miller (2004) are also of the view that, the relationship between IQ and the CG is substitutionary and that the effectiveness of the board is stronger in an environments with weak IQ compared to those with strong IQ. Clearly, if the complimentary effect of IQ on CG clashes with the substitute effect of IQ on CG, then there may not be any difference regarding how effective boards are comparing strong and weak IQ environments.

2.2 Review of Prior Studies

The association between the ownership structures and the financial reporting fraud of listed firms for the period 2005-2013 was investigated by Aziz. et al., (2017). For the analysis, a sample of 853 findings from 2005 to 2013 have been used. During the year of accounting errors, they gathered ownership structure and financial data for sample firms, compared them to those of control companies and analyzed it in a logistic regression. Findings from the study revealed that financial statement fraud is negatively and significantly associated with foreign ownership. A key issue with a number of studies using accounting errors as a fraud indicator is that the studies often fail to provide clear-cut baselines for what types of accounting errors will be classified as fraudulent. This approach may indeed be considered as slightly far-reaching as it tends to be quite too generalistic.

Daphne, William and Yuehua (2018) posit that foreign governance play important roles in transition economies because they are complementary to the institutional conditions. Conducting a bivariate probit analysis of a matched sample of corporate financial fraud cases in China, the study finds that strategic alliances, business group affiliation, non-tradable state shares and foreign ownership can deter corporate financial fraud. Conyon and Leong (2016) investigated the relation between compensation and corporate fraud in China. They document a significantly negative correlation between compensation and corporate fraud using data on publicly traded firms between 2005 and 2010. They also find that executive compensation is lower in firms that commit more severe frauds. Panel data fixed effects and propensity score methods were used to demonstrate these effects.

2.3. Review of Theories

2.3.1. The Fraud-Triangle Theory

The fraud-triangle theory attributes fraud to three elements: pressure, opportunity and rationalization (Mui and Mailley, 2015). The initial version of fraud triangle is referred to by Cressey (1953) who attributed embezzlement behavior to three factors: pressure to commit an embezzlement, an opportunity, and a rationalization or attitude to justify the embezzlement (Daigle, Hayes and Morris, 2014). The fraud-triangle theory asserted that fraud occurs when a perpetrator has an incentive/pressure to commit a fraud; exploits an opportunity of weak internal controls with a low risk of being caught; and be able to justify the fraud behavior (Mui and Mailley, 2015). Fraud triangle is a helpful tool to explain how accountants exploit their positions to deceive their clients, misappropriated fund, and committed fraud under perceived pressure, and exploited opportunity (Dellaportas, 2012). Although many factors account for fraud motivation and rationalization, fraud opportunity factor is complex and multidimensional. That is because other factors may limit the fraud opportunity. For example, weak internal controls, capacity, knowledge and skill of offender can trigger opportunity for fraud. However, other factors such moral, ethical, legal, and social controls can limit this opportunity.

3.0 Methodology

The “ex post facto” research design was adopted in this study and the population of the study consists of all non-financial companies quoted on the Nigerian Exchange Group (NXG) as at December 31, 2020, and there were 75 quoted non-financial companies in the Nigerian stock exchange classification (NXG, 2020). The data were collected from the annual reports for the financial years 2011-2020, and the study employ the logistic regression for data analysis process, model specify below.

The functional and econometric equations depicting the relationship between corporate governance and financial statement fraud likelihood using the Beneish M-score is presented below:

P_{jt} (FSF= Beneish M-score) = 1/ (1+ e^{-z}) (i)
= 1/{1+exp [CoGv]}
P_{jt} (FSF= Beneish M-score) = 1/{1+exp [$-\beta_0 + \beta_1 BDS + \beta_2 BDIND + \beta_3 FOWN + \mu_{it}$]} (ii)

Introducing the moderating effect of institutional quality have;
P_{jt} (FSF= Beneish M-score) = 1/{1+exp [$-\beta_0 + \beta_1 BDS*INSQUA + \beta_2 BDIND*INSQUA + \beta_3 FOWN*INSQUA + \mu_{it}$]} (iii)

3.1. Operationalisation of Variables

Variable	Definition	Measurement	Source
FSFD	Financial Statement Fraud Likelihood	**Beneish M-score** The formula for computing the score is specified below: M-Score = −4.84 + 0.92 × DSRI + 0.528 × GMI + 0.404 × AQI + 0.892 × SGI + 0.115 × DEPI −0.172 × SGAI + 4.679 × TATA − 0.327 × LVGI ----- (1) Where: DSRI= Days Sales in Receivables Index, GMI= Gross Margin Index (GMI), AQI= Asset Quality Index, SGI= Sales Growth Index, DEPI= Depreciation Index, SGAI= Sales General and Administrative Expenses Index, LVGI= Leverage Index and TATA= Total Accruals to Total Assets. If M-Score is less than -2.22, the company is unlikely to be engaged in fraud If M-Score is greater than -2.22, the company is likely to be engaged in fraud	Beneish (1999)
BDS	Board size	The ratio of non-executive directors on the board.	Agrawal and Chadha, (2017).
BDIND	Board Independence	The female to male ratio on the board	Agrawal, and Chadha, (2017)
FOWN	Foreign Ownership	Annual World development indicators from heritage index	World Bank (2019)
INSTQUA	Institutional Quality	Measured as % of ownership controlled by management entities	Wardhani, (2015).

Source: Researcher's compilation (2021)

4. Presentation of Result

The descriptive statistics from Annex no. 1 shows a disaggregation of the data into fraud likely firms and unlikely firms based on the beneish M-score. The BM-score mean and standard deviations for fraud unlikely sample are as shown above. The data revealed that the BSRI mean for the fraud likely is higher than that of the fraud unlikely sample and this implies that fraud likely firms tend to have higher sales debtor values and the volatility of BSRI as indicated by the variance is higher for fraud likely firms than for fraud unlikely firms suggesting further that fraud likely firms tend to exhibit more volatility of sales data over the business cycle. The data revealed that the BGMI mean for the fraud likely sample is also higher than that of the fraud unlikely sample and is even more volatile than that for fraud unlikely firms. Normally, A BGMI value greater than one (1) indicates that margins have deteriorated. This signals poor prospects and might lead to financial statement fraud and as observed the fraud likely sample indeed show BGMI of greater than one and hence the propensity for financial statement fraud is higher for such firms

The mean for Beneish Other Asset Index (BAQI) is also higher in the fraud likely sample than in the fraud unlikely sample. Asset Quality is the ratio of non-current assets other than plan, property, and equipment as a proportion of total assets and normally, AQI greater than one (1) indicates that a firm has potentially increased its involvement in cost deferral. The mean for Beneish Sales growth Index (BSGI) is higher and for fraud likely sample group than for the fraud unlikely sample. Growth does not imply manipulation, but growth firms are more likely to commit fraud because their financial position and capital needs put pressure on managers to achieve earnings targets. In addition, controls and reporting tend to lag behind operations in periods of high growth. Any perception of decelerating growth can significantly impact the value of the stock and be very costly to manage. The mean for Beneish Depreciation Index (BDPI) for fraud likely sample group and for the fraud unlikely sample implies that BDPI is higher for the fraud likely sample than for the unlikely sample. The mean for Beneish Leverage Index (BLEI) for fraud likely sample group and for the fraud unlikely sample in the result. This values do not show strong difference in way fraud likely and unlikely firms handle leverage. Finally, the Beneish Expenses Index (BEXI) for the financial statement fraud likely sample and for the unlikely sample are as shown above.

Table 2: Descriptive Statistics for Governance and Institutional Quality Data

	Mean	Max	Min	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Prob
BDS	9.0055	19	4	2.67113	0.7544	3.663737	82.29645	0.00
BDIND	65.948	94.44	0	17.1408	-1.1407	5.25611	311.8675	0.00
FOROWN	0.6152	112.03	0	0.24137	1.3516	8.378238	1097.564	0.00
INSQUA	32.449	37.44	26.92	3.62430	0.0090	1.497822	68.36424	0.00

Source: Researchers Compilation

The descriptive statistics for the independent variables in this study is presented in table two (2) and as observed, BDS has a mean of nine with maximum and minimum values respectively. BDIND has a mean value which indicates that on the average corporates boards in the sample have 65% of non-executive directors with maximum and minimum values of 94% and 0% respectively. The average FOWN stood at 0.62% with maximum and minimum values of 12% and 0% respectively. The mean for institutional quality index stood at 32.5% which is even below average and suggests that there is still much to be done to improve institutional quality in Nigeria.

Table 3: Pearson Correlation Statistics

	BM-Score	BDS	BDIND	BGD	FOROWN	INSQUA
BM-Score	1					
P-value						
BDS	0.05207	1				
P-value	0.1625					
BDIND	-0.0435	0.1363	1			
P-value	0.2435	0.0002				
FOWN	0.053	0.0305	-0.1001	0.0516	1	
P-value	0.1526	0.4129	0.0071	0.1659		
INSQUA	0.050	-0.007	-0.0328	-0.17	-0.0387	1
P-value	0.179	0.8516	0.3798	0.00	0.2999	

Source: Researchers compilation (2021).

Table 3 shows the correlation statistic for the variables and the focus for the study is the BM-score and the independent variables. The results reveals that BM-score is positively correlated with BDS though not significant, FOWN though not significant and INSQUA though not significant. BDIND is not significant.

Table 4. Beneish M-score Model Regression Result

	Beneish M-score				
	Logistic regression			Zero-inflated Probit Regression	
	Baseline estimates	Marginal effect dy/dx	Odd ratios		
C	0.0398** (0.0431) {0.003}			-7.0348 (4.1892) {0.093}	4.5052 (845.5) {0.996}
BDS	0.9999 (0.0302) {0.999}	0.9999 (0.0302) {0.999}	1.5142 (0.4393) {0.153}	-0.7695 (0.0721) {0.286}	0.24868 (0.17534) {0.156}
BDIND	1.0039 (0.0048) {0.410}	1.0039 (0.0048) {0.410}	1.0624 (0.0485) {0.185}	0.05241 (0.0325) {0.107}	0.0364 (0.0274) {0.185}
FOWN	1.0030 (0.3323) {0.993}	0.1238 (0.0589) {0.036}	0.81953 (2.6156) {0.950}	5.1963 (4.039) {0.198}	-0.0805 (1.9105) {0.966}
REQ			1.2305 (0.1703) {0.134}		0.1239 (0.0835) {0.138}
BDS*INSQUA			0.9870 (0.0089) {0.150}		-0.0078 (0.0055) {0.153}
BDIND*INSQUA			0.9982 (0.0014) {0.206}		-0.00107 (0.0009) {0.206}
FOWN*INSQUA			1.00749 (0.098) {0.939}		0.0032 (0.0580) {0.957}
Pseudo R^2	0.0325		0.0325		
Count R^2	0,592		0.611		
Log likelihood	-141.075		-141.075		
LR	9.47		9.47		
Prob > chi2	0.0504		0.0504		

Source: Researchers compilation (2021). **** Show the of Significance

In this estimation, the Beneish M-score indicator of financial statement fraud is used and looking at the logistic odd ratios in column 4, the logistic estimation reveals that the odd ratio for BDS which indicates that increase in board size will increase the odds of financial statement fraud though this is not significant. The odd ratios for BDIND indicate that the odds of financial statement will decrease with an increase in board independence though the estimates is not significant at 5% with p-values of 0.185. The odd ratio for foreign ownership indicates that increase in foreign ownership will decrease the odds of financial statement fraud though this assertion failed the test for significant.

Introducing the moderating role of institutional quality into the estimation, Institutional quality has odd ratio was not significant on the M-score financial statement fraud indicator and this implies that institutional quality in itself did not show any significant connection with financial statement fraud using the M-score. Board independence on institutional quality was also not significant on the M-score financial statement fraud indicator. This implies also, that no evidence of a significant moderating effect of institutional quality holds in the relationship between BDS and M-score. Foreign ownership on institutional quality was also not significant on the M-score financial statement fraud indicator. This implies also, that no evidence of a significant moderating effect of institutional quality holds in the relationship between foreign ownership and M-score.

To deal with the number of zero counts involved, we follow the approach of Dong et al. (2014) and estimate a multivariate zero inflated probit regression model as an alternative for modeling the M-score which showed the potential of accommodating excess zeros in correlated count data.

Table 5. Beneish M-score Robust Heckman two-Stage Estimation

	Dependent Variable: Beneish M-score			
Variable	1st stage Response equation	2nd stage Selection equation	1st stage Response equation	2nd stage Selection equation
C	-168.407** (80.581) {0.0370}	-0.7006 (0.4556) {0.1246}	-129.262 (97.059) {0.1834}	-0.4445 (97.059) {0.1834}
BDS	3.2801 (3.3675) {0.3304}	0.0173 (0.0160) {0.2799}		
BDIND	0.0234 (0.3239) {0.9424}	0.0009 (0.0024) {0.7232}		
FOWN	30.2032 (33.5860) {0.3688}	0.1775 (0.1719) {0.7359}		
INSQUA	-0.0283 (1.6198) {0.9861}		-1.05947 (1.6144) {0.5119}	-0.01048 (0.01287) {0.4160}
BDS*INSQUA			0.10096 (0.1086) {0.3530}	0.0005 (0.0005) {0.3191}
BDIND*INSQUA			-0.0018 (0.0108) {0.8704}	9.02e-06 (7.63e-05) {0.9059}

FOROWN*INSQUA			0.9787 (1.0710) {0.3611}	0.0057** (0.0053) {0.02781}
Log Likelihood	-1804.6 (0.000)		-1804.051 (0.00)	
Mean of dependent v.	11.832		11.832	
S.E of regression	115.79		115.58	
S.D of dependent V.	144.86		144.86	
Inverse mill ratio (IMR)		0.971 (0.439)		-0.1530 (0.145)
Akaike info criterion	4.920602			4.919057
Schwarz criterion	5.020205			5.018661
Hannan-Quinn criter	4.959005			4.957461

Source: Researchers compilation (2021)
**** Show the of Signicance

The Heckman two stage M-score results are presented and the estimation reveals that both the response and selection estimation results in column three and four respectively reveal that for board size has a positive effect and are both are not significant. Board independence is positive both in the response and selection equations and is not significant. Foreign ownership is positive both in the response and selection equation though not is significant. The moderating coefficients are also presented and the results reveal that institutional quality (INSQUA) is negative both in the response and selection equations though not significant. The result implies that the effect of institutional quality on financial statement fraud is not significant. The coefficient for board size on institutional quality is positive in the response equation and also positive in the selection equation with none showing statistical significance at either 1 or 5%. Hence, there is no significant evidence to support that institutional quality moderates the extent to which BDS influences the likelihood of financial statement fraud. The coefficient for board independence on institutional quality is negative in response equation and positive in the selection equation with none showing statistical significance at either 1 or 5%. Hence, there is no significant evidence to support that institutional quality moderates the extent to which BDIND influences the likelihood of financial statement fraud. The coefficient for foreign ownership on institutional quality is positive but not significant in the response equation and equally positive but significant in the selection equation. Hence, there is some significant evidence to support that institutional quality moderates the extent to which foreign ownership influences the likelihood of financial statement fraud. The Inverse mills ratio (IMR) are all insignificant indicating that there is no longer selection bias in the model.

5. Findings, Conclusion and Recommendation

The study result reveal that board size has a positive effect and significant. Board independence is negative, which implies that increasing the level of board independence will result in a reduction in financial statement fraud. Foreign ownership is negative and significant. Implying that increasing the level of foreign ownership will result in a reduction in financial statement fraud.

Introducing the moderating role of institutional quality, institutional quality has a positive and significant impact on financial statement fraud. Board size on institutional quality show positive though not significant. Board independence on institutional quality has a negative impact on financial statement fraud and significant, which implies that an increase in the number of board independence will reduce financial statement fraud. Foreign ownership on

institutional quality possess a negative and significant effect on financial statement. In order to provide fortification in the business world for susceptible stakeholders there is need to improve corporate monitoring and control.

That corporate boards should increase their board independence levels. That increasing the level of foreign ownership will result in a reduction in financial statement fraud. The incentives for foreign ownership presence in boards are indeed diverse in line with the resource-based view theory and this study confirms their effectiveness in constraining financial statement fraud. Hence it is recommended that companies should seek and maintain some level of foreign ownership presence in their boards. Introducing the moderating role of institutional quality into the estimation, amongst the variables, the study recommends the importance of improving institutional quality in the Nigerian environment. Even in the presence of firm-specific weak governance, strong institutions can also complement and ensure some level of transparency and investor protection.

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Annex no. 1. Descriptive Statistics for Beneish M-score Components Data

Fraud likely Sample								
	BMScore	BSRI	BGMI	BAQI	BSGI	BDPI	BLEI	BEXI
Mean	11.85764	13.83873	1.571109	5.199964	1.297394	1.736124	0.999351	1.15178
Std.Dev	145.1684	156.9893	3.84	42.1737	1.170371	6.524474	0.269471	1.164223
Variance	21073.86	24645.66	14.7456	1778.621	1.369769	42.56877	0.072614	1.355415
Kurtosis	216.8616	222.8409	155.4222	186.3528	77.69861	200.7128	7.135059	49.97826
Skew	14.51896	14.79882	11.95152	13.21435	7.855457	13.7818	0.67089	6.501711
Range	2183.772	2376.088	54.4671	612.6704	14.4496	97.1558	2.4112	12.321
Min	-2.1969	0	-0.4978	-1.1299	0.093	0.0319	0.0607	0.000
Max	2181.575	2376.088	53.9693	611.5405	14.5426	97.1877	2.4719	12.321
Fraud Unlikely Sample								
Mean	-4.58085	0.945339	0.723134	-2.35143	1.035259	1.093916	1.086244	1.117275
Std.Dev	25.5351	0.403108	3.293352	62.99066	0.264865	1.100837	0.534452	0.739564
Variance	652.0412	0.162496	10.84617	3967.824	0.070153	1.211842	0.285639	0.546955
Kurtosis	495.2517	3.913955	214.4961	499.7984	8.878323	127.0125	191.3	44.11934
Skew	-22.0605	0.758823	-13.9535	-22.2091	1.319215	9.919706	11.9829	5.745619
Range	575.6745	3.5521	60.6989	1425.58	2.8734	17.8194	10.014	8.8952
Min	-577.876	0	-56.5756	-1419.79	0.1693	0	0.3974	0
Max	-2.2018	3.5521	4.1233	5.792	3.0427	17.8194	10.4114	8.8952
Aggregate Sample								
	MSCO	BSRI	BGMI	BAQI	BSGI	BDPI	BLEI	BEXI
Mean	11.85764	13.83873	1.571109	5.199964	1.297394	1.736124	0.999351	1.15178
Std. Dev	145.1684	156.9893	3.84	42.1737	1.170371	6.524474	0.269471	1.164223
Variance	21073.86	24645.66	14.7456	1778.621	1.369769	42.56877	0.072614	1.355415
Kurtosis	216.8616	222.8409	155.4222	186.3528	77.69861	200.7128	7.135059	49.97826
Skewness	14.51896	14.79882	11.95152	13.21435	7.855457	13.7818	0.67089	6.501711
Range	2183.772	2376.088	54.4671	612.6704	14.4496	97.1558	2.4112	12.321
Min	-2.1969	0	-0.4978	-1.1299	0.093	0.0319	0.0607	0.000
Max	2181.575	2376.088	53.9693	611.5405	14.5426	97.1877	2.4719	12.321

Source: Researchers Compilation

Where: BSRI= Beneish Sales Debtor Index, BGMI= Beneish Gross Profit Index BAQI= Beneish Other Asset Index, BSGI=Beneish Sales growth Index, BDPI=Beneish Depreciation Index, BLEI= Beneish Leverage Index and BEXI= Beneish Expenses Index.