

Moderating effect of Working capital on the relationship between Board Characteristics and Financial Performance of Listed Firms in Nigeria

Mohammed Alhaji Audu

Department of Banking and Finance, Faculty of Management Sciences, University of Maiduguri, Borno State, Nigeria
maaudu3@gmail.com

Abstract

The study investigates the moderating effect of working (cash conversion cycle) on the relationship between board characteristics and financial performance of listed firms in Nigeria that are registered with Nigerian Exchange Group market. While firm performance proxied by return on asset (ROA) is the dependent variable, the independent variables adopted for this study includes board ownership, board independence and working capital (cash conversion cycle). The population of the study is 156 firms registered with NGX and sample size of 30 firms was arrived at based on the availability of data for ten years for all the research variables was purposively selected. The econometric techniques adopted in this study are the panel fixed and Random effect regression techniques. The empirical result of this study leads to the conclusion that without moderating with working capital, board independence significantly increases firm financial performance. However, after moderating with working capital, the result shows that it also significantly improved firm financial performance. Succinctly, the study recommends that to improve performance, management should cautiously consider increasing the number of independent non-executive on the board while also increasing working capital.

Keywords: Board characteristics, Board ownership, Board independence, Working capital, firm financial performance,

1. Introduction

Over the years, although analysis of many corporate failures indicates that the causes are due to financial factors such as leverage (Amoa-Gyarteng, 2014), profitability (Issarawornrawanich, (2015) and assets turnover (Aanu et al, 2014). Jemming and Weiwei (2011) noted that non-financial factors such as lack of consistent policies, control procedures, guidelines, and mechanisms also play an important role in process of a firm poor financial performance. This view is consistent with several studies which points to the fact that most of the causes of poor performance are dependent on the quality of the decision makers who are the board of directors (Aanu et al ,2014; Salloum & Azoury 2012).

In line with this view, Norwahida et al, (2012); Herdjiono and Sari, (2017) opined that the board is the internal corporate governance mechanism that aligns shareholders' interests with those of the management. Andow and Bature, (2016) argues that the board of directors is crucial for an effective internal control system and contends that the problems associated with corporate internal control systems start with the board of directors. In addition, agency theorists posit that poor corporate governance is because of management acting in self-interest at the expense of shareholders which may lead a firm into financial distress. According to the Organization for Economic Cooperation and

Development (OECD), when a company is in a financial crisis situation, then there is a severe deficiency in the company's corporate governance (OECD, 2013; Kosmidis & Stavropoulos, 2014).

The aim of this study is to analysis the moderating effect working capital (cash conversion cycle) on the relationship between board characteristics and financial performance of listed firms in Nigeria that registered with Nigerian Exchange Group market. The study examines the effect of board ownership on financial performance of firms and to examine the effect of board independency on financial performance of firms. The study seeks to answer the question of what is the extend of board ownership and independency affect non-financial performance of firms in Nigeria. The study hypothesizes that board ownership and board independency has no significant effect on non-financial performance of firms in Nigeria.

A review of several empirical studies from continents in the world showed different results of the effect of board characteristics and working capital on firm performance. Furthermore, the review also revealed the following research gap. (1) Most past studies were done in Asia especially in Pakistan, Indonesia, and India while in Africa the few studies were in Ghana, Kenya, Egypt and Nigeria but all the studies in Africa and Nigeria in particular research little on moderating effect of working capital on board characteristics and financial performance of firms. This study therefore seeks to address these research problems by first ensuring the inclusion of variables like board independence and board ownership are all included in our study as proxies for board characteristics and working capital as moderating variable. Second, the study employed a panel regression technique of within effect estimator that can capture the heterogeneity effect present in the firm. Third, the study ensures that a larger firm observation of firms over 10 years is used. More than this, the study to the best of our knowledge will be the first in the context of Nigeria to use most recent data including the crisis period of 2012 and 2013.

2. literature Review

Firm financial performance is generally defined as a measure of the extent to which a firm uses its assets to run the business activities to revenues. It examines the overall financial health of a business over a given period and can be used to contract the performance of identical firms in similar industries or between industries in general (Herdjiono & Sari,2017). The main source of data for determining firm financial performance is the financial statement, the product of accounting which consists of the balance sheet which shows the assets liabilities and equities of a business, the income statement that records the revenues, expenses and profits in a particular period, the cash flow statement which exhibits the sources and uses of ash in period, and the statement of changes in the owners' equity that represents the changes in owner's wealth. Firm financial performance is commonly reflected in the calculation of financial ratios that show the link between numbers in the financial statement. The financial ratios may include the computation of the profitability, efficiency, liquidity, gearing, and investment of a particular firm.

Board independence

According to Faatihah et al, (2016), Independence directors are directors that are not full-time employees as compared to the executive directors who are full-time employees and are involved in the day-to-day operation of the company. The role of independence non-executive directors was as a monitoring mechanism for the performance and activities of executive directors and management. In general, the representation of independence directors is vital for the board's effectiveness. An independent member of the board of directors is a board member free from any conflict of interest, independent in the protection of investors and the improvement of the quality of control exercised by the board. This

person helps guide the bank's strategic policies and make them more effective in managing bank risks. The theoretical concept of having outside, disinterested members joining corporate boards is an innovation of 'good governance' in post-war US board practice, which has gradually increased over time (Herdjiono & Sari, 2017)

Board Ownership

Directors' shareholding is the proportion of shares owned by the directors of a company. Al-Matar et al, (2014) suggests that many problems happen when directors do not own a substantial proportion of the firms' shares. In the first instance, the incentives of the directors to pursue the shareholders' interests will be reduced and this will affect firms' financial health (Issarawornrawanich, (2015)). Furthermore, according to Jensen and Meckling (1976) firms should use share ownership to align the interests of the directors with the firm. Managerial ownership structure is the largest share ownership structure owned by company management consisting of directors and commissioners as measured by the percentage of shares of management, with managerial ownership management will be more selfish, Managerial ownership structure can be explained through two perspectives, namely the agency approach and the imbalance approach. The agency approach considers the structure of managerial ownership as an instrument or tool used to reduce agency conflict among several claims against a company.

Working Capital

Working capital management comprises the management of current assets and current liabilities, and good working capital management ensures a satisfactory level of working capital at all times (Kumari & Anthuvan, 2017). Working capital is the flow of available funds necessary for the working of a business. It consists of funds invested in current assets, which in the ordinary course of business can be turned into cash within a short period without diminishing in value and without disruption of the organization (Mohanty, 2013). It is an important element in any organizational setting that requires serious attention, proper planning, and management (Owolabi & Alu, 2012). According to Korede (2017), a company should have working capital policies on the management of inventory, trade receivables, cash, and short-term investments to minimize the possibility of illiquidity and inefficiency. These policies should also take into consideration the nature of business as different businesses have different working capital requirements. The efficient utilization of the firm's working capital has a linear relationship with the profitability of that firm. So, effective, and efficient working capital management is expected as it has a significant effect on the profitability and sustainability of firms (Agha & Mba 2014). Working capital management is the process of planning for the acquisition and usage of short-term assets (Ismail et al, 2015). Nwankwo & Osho (2010), opined that efficient WCM is a continuous process that entails several day-to-day operations and decisions that determine the firm's level of investment in each type of current assets. The level of short term and long-term debts the organization will use to finance its assets.

2.1 Theoretical Review

The optimal inventory level should be determined by looking at the trade-off between the costs of inventory and the benefits associated with the levels of inventory. Inventory costs include ordering costs and carrying costs. Ordering cost includes the cost of purchasing order preparations, receiving, requisition, inspecting, and recording the received goods. The carrying cost involves storing and opportunity costs. The motive to maintain a higher or lower inventory depends on the type of business. Emery and Marques (2011) on the transaction cost theory argue that the most widely and simple motives of managing inventories are the cost motives. For the company to be competitive they must reduce their

cost therefore the company should work on keeping the cost of inventory stocking reasonably low. The working capital of the firm consists of short-term assets (Current assets) and short liabilities (Current Liabilities), whereby short-term assets are made of accounts receivables, trade credit, customer credit, inventories, raw materials, work in progress, and finished items, that is all cash and receipts that fall due within a year. Current liabilities are made of accounts payables, overdraft, loan repayments which fall due within a year, and other payables that fall due within a year Component of working capital a firm invest in is a function of operating factors of a firm (Barine 2012). Investment in accounts receivable depend on the firm's credit policy. The longer the credit period given to a credit customer, the higher will be its investment in accounts receivables (Barine 2012). Investment in inventories is determined by the cost of holding such inventories, storage, obsolescence, opportunity cost of investment in inventories, rate of return in other risk equivalent investment opportunities. The higher the cost of holding inventories, the lower will be the amount /level of inventories held by the firm. An effectively managed working capital enables the firm to meet short-term obligations, which results in an increase in borrowing capability and reduces the risk of default hence a Consequential decrease in the cost of capital and an increase in firm value (Ebun & Emmanuel, 2019).

2.3 Empirical Review and Hypotheses Development

Board Independence and financial performance

To understand the relationship between board independence and financial performance there have been various studies conducted in Asia, Europe, Africa, and the Pacific. In Asia, we observed that board independence or non-executive directors is frequently used as one of the board characteristics determinants of financial performance. Based on studies that found negative relationships, Ahmad and Adhariani (2017) conducted a binary logistic regression study in Indonesia using 38 non-finance firms for the period of 2011-2015 and they also found out that board independence had a significant and negative relationship with financial performance. Khurshid, et al (2018), in Pakistan conducted a study on financial performance proxied by emerging market score using 164 non-finance firms in Pakistan for the period of 2009-2016 and they estimated their model using Probit regression method and found out that board independence had a negative and significant relationship with financial performance. Similarly, In America, Cardoso et al, (2019) studying financial performance employed board independence as a determinant. In the study, they used conditional logistic regression on 90 non-financial firms in Brazil for the period 2010-2016. They found that board independence has a negative and significant effect on financial performance. Based on studies that found positive relationships, In the Middle East, Salloum & Azoury (2012) evidence from Lebanon found a positive relationship between board size and financial performance. In their study they used 178 Lebanese non-listed and family-owned firms for the period of 2004 to 2008 and they estimated their model with logistic regression. From the foregoing, this study hypothesized that

H0₁: Board independence has no significant effect on firm financial performance in Nigeria

Board Ownership and financial performance

To understand the relationship between board ownership and financial performance there have been various studies conducted in Europe, Africa and the Pacific. However, limited empirical evidence abound on these relationships and most surprisingly a positive relationship. In Asia, we observed that board ownership is frequently used as one of the board characteristics determinants of financial performance. Based on studies that found

positive relationships, Putrano, (2018) on their study of financial performance using 15 food and beverage firms in Indonesia employed board ownership as one of the determining factors. The study was conducted between 2012 to 2015 and the result of the Multiple OLS regression technique shows that ownership has a negative impact on financial performance. In Africa, we observed from the work of Akpan (2015), that board ownership had a negative and significant impact on financial performance of Nigerian firms. Their findings were based on a multiple regression estimation method using a sample of 79 Nigerian firms for the period of 2010 to 2012.

In the Middle East, Salloum & Azoury (2012) evidence from Lebanon found a negative relationship between board size and financial performance. In their study they used 178 Lebanese non-listed and family-owned firms for the period of 2004 to 2008 and they estimated their model with logistic regression, the study found positive relationships. In Africa region, we observed the work of Appah, Tebepah, & Awuji (2020) of 5 commercial banks in Nigeria for the period of 2008-2017 and based on a multiple regression method discovered that board ownership had a positive impact on financial performance. This relationship was insignificant. Ebum & Emmanuel (2019) used board ownership as a proxy for corporate governance determinants of financial performance. In their study, they used an unbalanced panel observation of 15 insurance firms which were sampled from Nigeria and their results based on Panel least square regression estimation method showed that board diligence was positive but insignificantly related to financial performance. From the foregoing, we hypothesized that

H0₂: Board ownership has no significant effect on firms' financial performance in Nigeria

Working capital and Firm Performance

To understand the effect of cash conversion cycle on firm performance, there have been various studies conducted in Asia, Europe, Africa, and the Pacific. In Asia we observed that receivable days was used as one of the working capital management determinants of firm firm performance. Based on studies that found negative relationships, Safiah & Nizam, (2015) evidence from Malaysia found a negative and significant relationship between cash conversion cycle and firm performance. In their study they used 50 Plantation and Petroleum firms for the period of 2010 to 2015 and they estimated their model with OLS regression. Napompech (2012) in Thailand conducted a study on firm profitability proxied by Gross profit margin using 225 non-finance firms in Thailand for the period of 2007-2009 and they estimated their model using Panel regression method and found out that cash conversion cycle had a negative and significant relationship with firm profitability.

In Africa, we noticed that study of Oladimeji & Aladejebi (2020) who also found out that cash conversion cycle was negative and significant with profitability when proxied by Return on Asset (ROA). Their studies were done on 5 SMEs from Nigeria for the period of 2014-2018 and they used to OLS estimation methods. In Europe, Korent & Orsag (2018) as evidence from Croatia found a negative relationship between cash conversion cycle and profitability, however, this relationship was insignificant. In their study they used 442 ICT firms for the period of 2008 to 2013 and they estimated their model with Panel regression. In Africa, Dinku, (2013) study firm profitability which was conducted in Ethiopia using 67 Ethiopian SMEs for the period of 2003 and using ordinary least square regression methods revealed that cash conversion cycle has a positive and significant impact on profitability of Ethiopian SMEs. In Europe, Anton & Nucu (2021) on their study of profitability using 305 firms in Poland employed current ratio as one of the determining factors. The study was conducted between 2007 to 2016 and the result of the OLS

regression technique shows that cash conversion cycle had a significant and positive relationship with profitability.

H03: Working capital has no significant effect on firms' financial performance in Nigeria

3. Methodology

In relation with extant literature, we employed the firm-level approach based on an ex-facto and non-experimental research design. The study is longitudinal covering a period of ten (10) years. That is, from 2011 to 2020 employing listed non-finance firms on the floor of the Nigerian Exchange Group (NGX). The sampling technique employed is purposive since firms were included in the sample on certain selection criteria. These criteria were based on the view that the firms are listed on the Nigerian Exchange Group (NGX) market from 2011-2020; there were access to their annual financial reports within the period and they were not firms operating subsidiaries in Nigeria that are not listed in the Nigerian Exchange Group (NGX). Newly listed firms and delisted firms were excluded from the study. Thus, only non-finance firms that had all relevant data due to continuous existence were included in the sample. The population of the study is 156 firms registered with NGX and sample size of 30 firms non-finance firms that was arrived at based on the availability of data for ten years for all the research variables was purposively selected. To examine the effect of working capital Non-financial Performance of Listed Firms in Nigeria the study adapted and modified the model of Widiatmoko, Indarti & Pamungkas, (2020) to express our econometric model as

$$ROA_{it} = \beta_0 + \beta_1 BODI_{it} + \beta_2 MAOW_{it} + \beta_3 CACC_{it} + \beta_4 DETA + \mu_{it} \dots (1)$$

$$ROA_{it} = \beta_0 + \beta_1 CACC * BODI_{it} + \beta_2 CACC * MAOW_{it} + \beta_3 DETA + \mu_{it} \dots (2)$$

Where:

ROA = Return on asset: BODI = Board Independence: BOW= Board Ownership: CACC= Working capital: β_0 = Constant: β_1 - β_4 = Slope Coefficient: μ = Stochastic disturbance: i = i^{th} firm: t = time-period

Thus, our apriori expectations are stated as; X_1 - $X_6 > 0$: which means that a rise in the determinant variables of board ownership, board independence, and cash conversion cycle as well as a moderating variables of cash conversion cycle-board ownership and cash conversion cycle-board independence will lead to a rise in firm performance of listed non-finance firms in Nigeria. The econometric techniques adopted in this study are the panel fixed and Random effect regression techniques. The rationale for its usage is based on the following justifications: the data that will be collected may have time and cross-sectional attributes as well as across the sampled firms (cross-section); panel data regression provides better results since it uses large observation and reduces the problem of degree of freedom (Muhammad, 2012); it avoids the problem of multicollinearity and help to capture the individual cross-sectional (or firm-specific) effects that the various pools may exhibit with respect to the dependent variable in the model.

4. Empirical Results and Discussion

4.1 Descriptive Analysis

In this section, we examine the descriptive statistics for both the explanatory and dependent variables of interest. Each variable is examined based on the mean, standard deviation, maximum and minimum. Table 1 below displays the descriptive statistics for the study.

Table 1: Descriptive Statistics

VARIABLES	MEAN	SD	MIN	MAX	NO OBS
ROA	5.74	11.01	-52.56	53.96	299
BOW	16.32	24.16	0	94.35	300
BODI	66.76	13.93	33.33	93.33	300
CACC	5.77	156.44	-806.10	563.83	299

Source: Author (2022)

The table above shows the summary of the descriptive statistics of the study. From the table it is observed that firm financial performance (ROA) had a mean of 5.74 with a standard deviation of 11.01. Board ownership (BOW) had a mean of 16.32 with a standard deviation of 24.16. We also find that board independence (BODI) had a mean of 66.76 with a standard deviation of 13.93. We find that working capital (CACC) had a mean of 5.77 with a standard deviation of 156.44.

5.2 Correlation Analysis

In examining the association among the variables, we employed the Pearson correlation coefficient (correlation matrix), and the results are presented in the table below.

Table 2: Correlation analysis

	ROA	MAOW	BODI	CACC
ROA	1.00			
MAOW	-0.17	1.00		
BODI	-0.04	-0.10	1.00	
CACC	0.06	0.15	-0.12	1.00

Source: Author’s computation (2022)

In the case of the correlation between the variables of interest, the above results show that there exists a negative and weak association between board ownership and firm performance (-0.17). There exists a **negative and weak** association between board independence and firm performance (-0.04). There exists a **positive and weak** association between working capital and firm performance (0.06). In terms of the control variable, our results shows that there exist a negative and moderate association between capital structure and firm performance (-0.24). To test our hypotheses a regression results will be needed since correlation test does not capture cause-effect relationship.

5.3 Regression Results

Specifically, to examine the cause-effect relationships between the dependent variables and independent variables as well as to test the formulated hypotheses, we present a panel data regression and an OLS pooled results in the table below.

Table 3: Regression Result

	Model 1			Model 2		
	RETA Model (Pooled OLS)	RETA Model (FIXED Effect)	RETA Model (RANDOM Effect)	RETA Model (Pooled OLS)	RETA Model (FIXED Effect)	RETA Model (RANDOM Effect)
C	22.13 {0.000} ***	20.63 {0.000} ***	20.88 {0.000}	13.60 {0.000} ***	12.07 {0.000} ***	12.72 {0.000} ***
BOW	0.08 {0.003} **	0.04 {0.313}	0.02 {0.015}			
BODI	0.020 {0.036} **	0.20 {0.031} **	0.20 {0.028} **			
CACC	0.00 {0.940}	0.00 {0.475} ***	0.00 {0.581}			
BOWCCC				0.00 {0.003} **	0.00 {0.020}	0.00 {0.013}
BODICCC				0.00 {0.032} **	0.00 {0.005}	0.00 {0.002}
F-statistics/Wald Statistics	7.84 (0.00) ***	4.25 (0.01) **	20.54 (0.01) **	9.30 (0.00) ***	3.73 (0.01) **	13.68 (0.01) **
R- Squared	0.61	0.61	0.56	0.56	0.74	0.74
VIF Test	1.11			1.37		
Heteroscedasticity Test	5.70 (0.0170) **			4.38 (0.0201)		
Hausman Test		0.61 (0.9620)			0.4939	

Note: (1) bracket {} are p-values

(2) **, ***, implies statistical significance at 5% and 1% levels respectively

In the table above, it is observed from the OLS pooled regression that the R-squared value of 0.61 for model 1 and 0.74 for model 2 shows that about 61% and 74% of the systematic variations in firm financial performance proxy by ROA in the pooled financial performance of firms over the period of interest was jointly explained by the independent and control variables in both models respectively. The unexplained part of firm performance can be attributed to exclusion of other independent variables that can impact on firm performance but were captured in the error term. The F-statistic value of 7.84 (model 1) and 9.30 (model 2) and their associated P-value of 0.00 shows that the OLS regression of both model on the overall is statistically significant at 1% level, this means that the regression models is valid and can be used for statistical inference. The table above also shows a mean VIF value of 1.11 (model 1) and 1.37 (model 2) which is within the benchmark value of 10, this indicates the absence of multicollinearity in both models, and this means no independent variable should be dropped from the models. Also, from the table above, it can be observed that the OLS results had heteroscedasticity problems in model 1 and 2 since there probability value was both significant at 5% [5.70 (0.0170)] and 5% [4.38 (0.0201)]. The presence of heteroscedasticity in model 1 clearly shows that our sampled firms are not homogeneous. This therefore means that a robust or panel regression approach will be needed to capture the impact of each firm heteroscedasticity on the results. In this study we adopted the panel regression method using both fixed and random effect models.

The F-statistic and Wald-statistic value [{model 1: 4.25 (0.01)} model 2: 3.73 (0.01)] and [{model 1: 20.54 (0.01)} model 2: 13.68 (0.01)] for fixed and random effect regression respectively shows that both models are valid for drawing inference since they are both statistically significant at 5%. In the case of the coefficient of determination (R-squared), it was observed that [{model 1: 61%} model 2: 74%] systematic variations in firm performance proxied by dividend per share was explained jointly by the independent and control variables in both models respectively. This therefore implies that less of the

variation in performance were explained when compared to the OLS pooled regression. In selecting from the two panel regression estimation results, the Hausman test was conducted, and the test is based on the null hypothesis that the random effect model is preferred to the fixed effect model. Specifically, for model 1, a look at the p-value of the Hausman test (0.9620), implies that we should accept the null hypothesis and reject the alternative hypothesis at above 5% or 1% level of significance. This implies that we should adopt the random effect panel regression results in drawing our conclusion and recommendations. This also implies that the random effect results tend to be more appealing statistically when compared to the fixed effect. Furthermore, for model 2, a look at the p-value of the Hausman test (0.4939), implies that we should accept the null hypothesis and reject the alternative hypothesis at above 5% or 1% level of significance. This implies that we should adopt the random effect panel regression results in drawing our conclusion and recommendations. This also implies that the random effect results tend to be more appealing statistically when compared to the fixed effect. Following the above, the discussion of the random effect results became imperative in testing our hypotheses for both models respectively. The below is a specific analysis for each of the independent variables using the random effect regression.

5. Discussion of Findings

Since, the study is an extension of existing studies, only few findings in literature are not in agreement with the current positions of this study. Specifically, the study find that board ownership (Random effect regression = 0.02 (0.015)) as an independent variable to firm financial performance appears to have a positive and significant influence on firm financial performance. Therefore, the null hypothesis {H₀₁: Board ownership has no significant effect on firm financial performance of listed firms in Nigeria} is hereby rejected. This suggests that an increase in board ownership will significantly increase firm performance. This result agrees with prior empirical results which show that board ownership significantly increases firm performance (Putrano, 2018) and Salloum & Azoury (2012) who concluded that board ownership significantly increases firm performance.

Our results also shows that board independence (Random effect regression = 0.01 (0.028)) as an independent variable to firm performance appears to have a positive and significant influence on firm performance. This therefore means we should reject the null hypothesis {H₀₂: Board independence has no significant effect on firm performance of listed non-finance firms in Nigeria} is hereby rejected. This suggests that an increase in board independence will significantly increase firm performance. This result agrees with prior empirical results which show that board independence significantly increases firm financial performance (Salloum & Azoury, 2012) who concluded that board independence significantly increases firm performance. For the moderating effect of working capital (CACC) on the relationship between board ownership and firm financial performance, the results shows that BOWCCC (Random effect regression = 0.00 (0.003)) as an independent variable to firm performance appears to have a positive and significant influence on firm financial performance. This therefore means that the null hypothesis {H₀₃:

Working capital has no significant moderating effect on the relationship between board ownership and firm performance of listed finance firms in Nigeria} is hereby rejected. This suggests that an increase in working capital (cash conversion cycle) will significantly improve firm financial performance. This result does not agree with prior empirical results which show that working capital insignificantly improves firm performance Pouraghajan & Emam holipourarchi (2012). However, the study is not also in agreement with the studies of Safiah and Nizam, (2015) who concluded that working capital significantly decreases firm performance.

Similarly, for the moderating effect of working capital (CCC) on the relationship between board independence and firm financial performance, shows that BODICCC (Random effect regression = 0.00 (0.013)) as an independent variable to firm financial performance appears to have a positive and significant influence on firm financial performance. This therefore means that the null hypothesis {H0₄: Working capital has no significant moderating effect on the relationship between board independence and firm financial performance of listed finance firms in Nigeria} is hereby rejected. This suggests that an increase in board independence with working capital will significantly improve firm financial performance.

6. Conclusion

The board of directors is the internal corporate governance mechanism that aligns shareholders' interests with those of the management. The board of directors is crucial for an effective internal control system and contends that the problems associated with corporate internal control systems start with the board of directors. In addition, agency theorists opine that poor corporate governance is because of management acting in self-interest at the expense of shareholders which may lead a firm into financial distress. According to the Organization for Economic Cooperation and Development (OECD), when a company is in a financial crisis situation, it reveals that there is a severe deficiency in the company's corporate governance. In the light of this, the empirical result of this study leads to the conclusion that without moderating with working capital, board independence significantly decreases firm performance. However, after moderating with working capital, our results shows that although it improves firm performance, the improvement is not significant.

The study makes a number of recommendations. First, there is no need for any economy, haven guided firms to extent of listing in the capital market only to lose such company to selfish human intricacies. Consequently, the Nigerian stock exchange groups should tighten scrutiny of board composition. Corporate governance should be improved through efficient organization and robust regulation. Second, since the firm's capital may not be used judiciously without well-grounded corporate governance, to improve performance, management should cautiously consider increasing the number of independent non-executives on the board while also increasing working capital. Finally, the OECD (a globally respected think-tank) stipulated that when a company is in a financial crisis situation, it reveals that there is a severe deficiency in the company's corporate governance, the Nigerian regulators should mainstream this fact into their policy so as to use this to checkmate institutions with weak boards with a view of nipping the total collapse of the firm thereby creating shock wave in the entire economy whose outcomes mostly prove to be costly.

References

- Aanu, O.S., Oduanonses, I.F. and Foyeke, O.I. (2014). Effectiveness of Audit Committee and Firm Financial Performance in Nigeria: An Empirical Analysis. *Journal of Accounting and Auditing: Research and Practice*
- Adigwe, P. K., Nwanna, I. O., & John, E. I. (2016). Effect of corporate governance mechanism on the financial performance of banks in Nigeria. *NG-Journal of social Development*, 5(2), 41-50.
- Al-Matar, E. M, Al-Swidi, A.k. and Fadzil, F. H., (2014). The Effect of Board of Directors Characteristics, Audit Committee Characteristics and Executive Committee Characteristics on Firm Performance in Oman: An Empirical Study

- Amoa-Gyarteng, K. (2014). Analyzing a listed firm in Ghana for early warning signs of bankruptcy and financial statement fraud: An empirical investigation of AngloGold Ashanti. *European Journal of Business and Management*, 6(5), 10-17.
- Amoateng, A. K., Osei, K. T., Ofori, A., & Gyabaa, E. N. (2017). Empirical study on the impact of corporate governance practices on performance: evidence from SMEs in an emerging economy. *European Journal of Accounting Auditing and Finance Research*, 5(8), 50-61.
- Andow, H. A. and Bature, M. D., (2016). Ownership structure and the financial performance of listed conglomerate firms in Nigeria. *The Business and Management Review* 7(3)
- Ebun, A. F., & Emmanuel, O. T. (2019). Meeting of board and financial performance of insurance companies in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 7(9), 1-16.
- Emery, G. W., & Marques, M. A. (2011). The effect of transaction costs, payment terms and power on the level of raw materials inventories. *Journal of Operations Management*, 29(3), 236-249.
- Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The journal of law and Economics*, 26(2), 301-325.
- Fuzi, S. F. S., Halim, S. A. A., & Julizaerma, M. K. (2016). Board independence and firm performance. *Procedia Economics and Finance*, 37, 460-465.
- Herdjiono, I. and Sari, I. M., (2017). The Effect of Corporate Governance on the Performance of a Company, Some Empirical Findings from Indonesia; Central European Management Journal, Volume 25, Issue 1
- Issarawornrawanich, P., (2015). The Association between Board of Directors' Characteristics and Firm Performance: Empirical Evidence from Emerging Market of Thailand. *Journal of Applied Business and Economics*, 17(1): 54–65
- Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *the Journal of Finance*, 48(3), 831-880.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305-360.
- Kosmidis, K., & Stavropoulos, A. (2014). Corporate failure diagnosis in SMEs: A longitudinal analysis based on alternative prediction models. *International Journal of Accounting and Information Management*. 48(3), 831-880.
- Kumari, N. N., & Anthuvan, V. L. (2017). A study on the impact of the working capital management on the profitability of the leading listed manufacturing companies of Chennai (2006-2012). *International Journal of Research in Management, Economics and Commerce*, 7(8), 68-87.
- Milton, G. W. (2002). *The theory of composites* (p. 748).
- Salloum, C., & Azoury, N. (2012). Corporate governance and firms in financial distress: evidence from a Middle Eastern country. *International Journal of Business Governance and Ethics*, 7(1), 1-17.
- 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.
- Ting, I. W. K., Kweh, Q. L., & Hoanh, L. T. H. (2018). Board meeting frequency and financial performance: A case of listed firms in Vietnam. *International Journal of Business and Society*, 19(2), 464-472.
- Van Horne, J. C., & Wachowicz Jr, J. M. (2008). *Fundamentals of Finance Management*. YD Williams", Moscow.

Yameen, M., Farhan, N. H., & Tabash, M. I. (2019). The impact of corporate governance practices on firm's performance: Empirical evidence from Indian tourism sector. *Journal of International Studies*, 12(1).