# CORPORATE ATTRIBUTES AND SUSTAINABLE GROWTH: EVIDENCE FROM LISTED CONGLOMERATE COMPANIES IN NIGERIA

# Adewumi Zaid ADEYEMI

Osun State University, Okuku, Osun State, Nigeria adewumi.adeyemi@uniosun.edu.ng

Nureni Adekunle LAWAL

Osun State University, Okuku, Osun State, Nigeria nureni.lawal@uniosun.edu.ng

# Titilope Esther OLOREDE

Osun State University, Okuku, Osun State, Nigeria titilope.olorede@uniosun.edu.ng

### Abstract

Corporate attributes has been identified as one of the main factors that influence company's growth. In line with this statement, this research work investigated the effect of corporate attributes on sustainable growth of listed conglomerate companies in Nigeria for the period of twenty-three years, 2000 to 2022. Secondary data acquired from annual report and accounts of sampled firms were used. Data obtained were subjected to analysis using descriptive, correlation and fixed effect regression technique. Results of fixed effect technique revealed that corporate attributes of profitability, assets efficiency, firm size and innovation of conglomerate companies in Nigeria have positive and substantial impact on their sustainable growth. Firm age and managerial ownership have favourable but frivolous effect on sustainable growth. Furthermore, the results also indicated that together as a whole all the corporate attributes examined by this research work has strong and important influence on sustainable growth of quoted conglomerate companies in Nigeria. It was recommends that management of quoted conglomerate companies in Nigeria should continue to sustain and further improve their corporate attributes that have positive and significant influence on their sustainable growth.

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# **1. INTRODUCTION**

Corporate organisation has certain attributes that distinguished it from other business entities. These attributes believed by many researchers (Fonseka and Tian, 2016; Nor et al., 2020; Mubeen, 2017; Huang and Zhang, 2015) as some of the factors that determine company's performance and growth. Corporate attributes such as financial leverage, firm size, liquidity, profitability, dividends payout, assets efficiency,

firm age, innovation, managerial ownership, operating expenses, capital intensity, market share, off financial statement (balance sheet) activities, among others, can influence performance, as well as determine the growth of corporate organisations (Almarri, 2014). Shuaibu et al. (2019) asserted that some of corporate attributes have positive effect, while some have negative effect on firm's profitability, going concern and growth.

Firm's growth is one of the main objectives of many companies and use as an important factor to measure company's success. Financial resources and human capital development are considered as the most important factors that affecting company's growth (Bui et al. 2021). In current competitive world, companies are thriving to achieve sustainable growth that can be attaining without running into problems. Most of the previous empirical studies (Ali et al., 2019; Hassan and Hart, 2016; Vasin and Ilie, 2018; Mekherejee and Sen, 2019) on corporate characteristics and sustainable growth focused on developed economy countries and developing economy countries in Asia. Few studies on Nigeria (Akhalumeh, et al., 2022 and Kwaltommai et al., 2019) focused on corporate characteristics and growth in quoted consumer goods companies and quoted manufacturing companies respectively. As a result of dearth studies on developing countries, especially in Nigeria, this research work wants to add to few existing studies on corporate attributes and sustainable growth in Nigeria. Consequently, this research work objective is to make scientific inquiry the impact of corporate attributes on sustainable growth of quoted conglomerate companies in Nigeria.

Sequence to this preliminary section, the rest of this research work organised in the following path: section two looks into conceptual, theoretical and past empirical studies. Section three outlines research methodology, while section four provides results of the research work and discusses the results. Section five end the study and recommendations suggested.

### 2. LITERATURE REVIEW

### 2.1 Conceptual clarifications

#### 2.1.1 Corporate attributes

Corporate attributes or firms characteristics are explicit features that distinct a company from other companies. Akhalumeh et al. (2022) described corporate attributes as a company's criterion and managerial attributes that relatively affect firm's decisions. Corporate attribute variables examined by this research work are: financial leverage, liquidity, operating expenses, profitability, assets efficiency, dividend payout, firm size, firm age, innovation, managerial ownership and capital intensity.

Financial leverage is a variable employed by financial experts to determine firm's capacity to meet its current obligations is one of the corporate attributes. Financial leverage relates to the quantity of debt to

ordinary share in a capital mix of a company (Ali et al., 2017). The study of Bui el al. (2021) concluded that the higher the leverage (more debt than equity) the better the performance of the firm. Liquidity, another corporate attributes refers to by Feng et al. (2020) as ability of a firm to transform its current assets into cash in order to meet daily obligations. Company is expected to keep high current assets to current liabilities. It is believed that increase in firm's liquidity ratio, will lead to better firm's performance and higher the firm's growth.

Operating expenses is another factor varies from one company to another. This is an expenditure incurs by the company in their normal business operations. Research works of Usman et. al. (2020) described company's operating expenses as one of key factors that determine company's growth and survival. Profitability can be described as ability of business entity to generate profits from the operating activities. Kwaltommai et al. (2019) described profitability as ability of an enterprise to generate profit after all expenses have been deducted from revenue. It is parameter used to show how business organisation can generates profit from its operating activities to assure its going concern. Profitability can be computed using different methods, among them are: gross profit margin, net profit margin, return on sales, return on equity and return on capital employed.

Assets efficiency is one of the variables used to determine how organisation utilised their assets to generate revenue and achieve profit. It shows the ability of a company to optimally utilise its assets in generating revenue. Assets efficiency of a company can be measured by dividing firm's revenue by its total assets. Dividends payout is percentage of profit generated by the company that paid to shareholders. In another words, it is percentage of net income of company that distributed to its share holders inform of dividends. Dividend payout ratio is commonly calculated by dividing annual dividends by earnings per share. Firm size can be defined in many ways, such as in terms of sales, number of employees or value added. It is one of the major factors that determine firm's financial performance and performs significant function in determine diversification of a company (Mukerjee and Sen, 2019). Firm size can be measured using company's total assets, company's total sales, and firm's market value of equity or use national logarithm of above terms. Many past studies (Ying et al.; Shuaibu et al.; Alvarez and Busenitiz, 2017) argued that companies with higher firm's size would achieve higher performance and rapid growth than companies with lower firm's size.

Firm age referred to the number of years of firm's existence or can be defined as the time between firm initial creation and the current period. It measured as the time between when a company was established and the current period. Past studies of Nor et al. 2020; Purwanto and Agustin, 2017 concluded that firm's age as an adverse effect on company's growth and younger age companies grow faster than older age companies. Innovation which refereed to as new ideal, new method or new device introduced by

management of organisation to produce their product(s). Innovation can be measure by dividing revenue from the innovation by total revenue or dividing intangible assets by total assets. Past studies (Ying et al., 2019; Tajnikar, 2016) found that innovation has a favourable and substantial impact on company's growth. Managerial ownership can be described as amount of shared owned by the management of the company that are actively participate in company's decisions. It is the ratio of shares owned by all the board members to total number of shares. Managerial ownership is expected to increase firm's performance and spur firm's growth at the initial stage of a company (Ryabova et al. 2018). Capital intensity which is infusion of high non-current assets in a production process, that is, use of higher proportion non-current assets of land, machinery, plant and equipment to produce company's product. Capital intensity can be measure using different ways; it can be measure by capital expenditure by labour cost or by dividing total assets by total revenue or dividing non-current assets by total sales. Studies of Usman et al. (20200 showed that capital intensity had strong and fundamental impact on company's profitability and growth in the long run.

### 2.1.2 Sustainable growth

Growth of corporate organisation can be defined as an expansion of a firm in terms of revenue, profitability, market share, customer base or producing more output. Company should grow at a rate of between 10% and 25% per year and at a growth stage firm would begin to make more sales revenue, break even, generating more profit (Nor, et al. 2020). Ponikvar and Bonca (2016) explained that firm growth occurs when company increase its size in terms of increase in sales, expansion of non-current assets, increase in profitability or increase in value added. Many firm's attributes are identified as factors that influencing firm growth, among them are: liquidity, firm size, firm age, profitability, leverage, dividend payout, innovation, managerial ownership, assets efficiency and macro-economic variables (Feng et al., 2020).

In a simply term, sustainable growth has been described as realistic and attainable growth that a firm could uphold without running into difficulties (Leon, 2020). This is the highest rate of growth that a firm can keep without having additional capital (either debt of equity) to finance it growth. It can be computed by multiply firm's earnings retention rate by return on equity or return on equity multiply by 1, minus dividend payout. Many past studies (Akhalumeh et al., 2022; Nor et al., 2020; Ryabova and Samodelkina 2018; Ying et al; 2019) have examined the influence of corporate attributes on firm's sustainable growth rate. Review of past research works revealed that there are dearth studies focused on corporate attributes and sustainable growth especially on listed conglomerates companies in Nigeria.

Conglomerates companies are multi-industry companies that is companies with combination of multiple business organisations operating in different industries under one organisation, most of the time involve a holding company with many subsidiary and associate companies (Amouzesh, 2017). This type of corporate organisation has many advantages over the others, among them are: diversification of business, dilution of risk, expanding customers' base and increasing efficiency. As at 31st of December, 2022, six companies in this sub-sector were listed on the Nigerian exchange group.

### 2.2 Theoretical framework

Previous research studies used different theories to expound the influence of firm's attributes on sustainable growth, among the theories used are: agency theory, signal theory, contingency theory, random work theory, pecking order theory, evolutionary theory and resource-based theory. The evolutionary theory and resource-based theory are found to be the most suitable for this study and there are underpin theories for this study. Evolutionary theory was first introduced by Darwin in 1859 through his seminal work on origin of species. The theory was developed by Alchian in 1950 by using Darwin's evolutionary theory to explain that individual firm can use its traits or habit or characteristics or attributes to struggle for its existence. Supporters of this theory (Galor, 2012; Nelson, 2008, Metcalfe, 2009 and Hodgson, 1996) expounded that gradual change of firm over a period of time will make it change some of its attributes and as firm attributes change, it will change its performance in term of profitability which may be favourable or adverse.

Resource-based theory was propounded by Penrose in 1959. He introduced a model to explain effective management of a firm's resources to achieve growth. The theory stressed that firm's management needs to identify firm's resources that are valuable, scarce, non-substitutable and difficult to copy that may influence firm's long term performance. Osazuwa and Che-Ahmad (2016) supporters of this theory divulged that firm's management needs to exploit these resources effectively in order to achieve firm's sustainable growth, understand the main attributes of a firm that drive its performance and growth, identify and protect the important attributes that cause growth. Other supporters of the theory such as Barney and Mackey (2005); Colbert (2004); Alvarez and Busenitz, (2007) explained the importance of resources to the firm and how effective management of resources will be useful for the firm especially when the firm is able to utilise it in a unique and valuable manner that the competitors.

### 2.3 Review of related literature

Several previous research studies have examined the impact of corporate attributes on firms' sustainable growth using different firm's attributes, different methodology and in different countries; among them is the study of Akhalumeh, Izevbekhai and Ohenhen (2022) that examined corporate attributes and firm's growth in Nigeria. The study used sample of 91 quoted firms in Nigeria exchange market for a period of twelve years, 2009 to 2020. Findings of the study indicated that firm growth, firm innovativeness and

management efficiency have positive and significant effect on firm growth. Firm size, institutional ownership and leverage have positive but insignificant impact on firm growth. Firm age, capital intensity and international affiliation have negative and insignificant effect on firm growth.

Study Muhammed, et al. (2021) examined whether Higgin's model of sustainable growth is underestimated as proposed by the study of Chen in 2013. Author used sample of seven countries for the period of 2000 to 2015. Results showed that Higgins' model of sustainable growth is under-estimated in five countries (Brazil, Indonesia, Pakistan, South Korea and India). Furthermore, firm's attributes such as leverage and size have significant impact on sustainable growth rate of non- financial firms of sampled companies. Profitability and dividend policy have minor influence on sustainable growth of non-financial firms of sampled countries.

Bui, el at. (2021) conducted a research study on impact of firms' characteristics on firms' growth in East Asian and Pacific Nations for the period of ten years, 2010 to 2019. Study's results indicated that both profitability and leverage have strong and large influence impact on firms' growth. Operating expenses and firm size have adverse and fundamental influence on firms' growth.

In their own contribution, Makherjee and Sen (2019) conducted a study on sustainable growth rate and three firms' attributes (leverage, liquidity and profitability). The study used sampled of 115 quoted companies on Mumbai stock exchange in India for the period of 2010 to 2015. Results of the study revealed that there is a favourable and important link between liquidity and sustainable growth rate. Leverage and profitability have positive but insignificant relationship and sustainable growth rate of sampled firms.

Vasin and Ilie (2018) who investigated sustainable growth rate in most traded companies on the Bucharest exchange market. The study examined whether or not the sampled firms have sustainable growth model, constant growth and factors that influencing their sustainable growth. Authors used sampled of five firms out of twelve most traded firms on Bucharest exchange market during the period 2012-2016. Results of the study revealed that three out of five sampled firms recorded sustainable growth rate, while two firms recorded growth during the period covered by the study.

Research work of Rahim (2017) investigated influence of firm performance on sustainable growth rate. The author used data of 228 firms from all sectors apart from financial sector of Bursa stock exchange in Malaysia, for a period of eleven years, 2005 to 2015. Results of the study showed that financial leverage and assets efficiency have vigorous and essential influence on sustainable growth rate of sampled firms. Liquidity has negative and insignificant effect on sustainable growth rate of sampled firms.

## 3. METHODOLOGY

The research work used an ex-post facto research design, which is research technique that examines how an explanatory variable influence dependent variable. This research work scrutinises the impact of corporate attributes on sustainable growth of quoted conglomerate companies in Nigeria. The corporate attributes (independent variables) considered by this research work were: financial leverage, liquidity, operating expenses, profitability, assets efficiency, dividends payout, firm size, firm age, innovation, managerial ownership and capital intensity. Corporate sustainable growth was dependent variable.

This research work covered a period of twenty-three years, from year 2000 to 2022 for five conglomerate companies listed on the Nigerian exchange group. The year 2000 was chosen as base year because it was the year when many conglomerate companies disestablished and new and strong ones form. Secondary data extracted from financial statements of quoted conglomerate companies in Nigeria were employed. Population of the study were five listed conglomerate companies in Nigeria exchange group and all five listed conglomerate companies were used as sample size.

## 3.1 Methods of data analysis

This study employed both statistical and econometric techniques to analyse data collected. Statistical techniques of descriptive and correlation matrix were used to elaborate the relationship among the variables employed by this research work. Econometric technique of fixed effect regression model was used to ascertain the influence of explanatory variables on dependent variable, after the consideration of results of pooled ordinary least square regression (restricted), fixed effect regression and random effect regression (unrestricted). Furthermore, Hausman test was carried out in order to select most suitable model out of fixed effect regression model and random effect regression model. Also, multicollinearity and heteroscedasticity tests were carried out in order to comply with assumptions of regression analysis.

## 3.2 Model specification

The study adopted and expanded econometric model of Akhalumeh et al. (2022); Muhammad et. al. (2021); Vasiu and Ilie (2018) and Shuaibu (2019) to investigate influence of corporate attributes on sustainable growth of listed conglomerate companies in Nigeria. The study model expressed as follows: CSG = f(FNL, LQT, OEX, PFT, ASE, DVP, FSZ, FAG, INT, MGO, CIN) (i) When the model stated in econometric form it would become:  $CSG = \beta 0 + \beta 1 FNLit + \beta 2 LQTit + \beta 3 OEXit + \beta 4 PFTit + \beta 5 ASEit + \beta 6 DVPit + \beta 7 FSZit + \beta 8 FAGit + \beta 9$ INTit +  $\beta 10 MGOit + \beta 11 CINit$  (ii) Where:

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CSG = Corporate Sustainable Growth. FNL = Financial Leverage. LQT = Liquidity.

OEX = Operating Expenses. PFT = Profitability. ASE = Assets Efficiency.

DVP = Dividends Payout. FSZ = Firm Size. FAG = Firm Age. INT = Innovation.

MGO = Managerial Ownership. CIN = Capital Intensity.

## 4. RESULTS AND DISSCUSSION

## 4.1 Descriptive statistics

TABLE 1. DESCRIPTIVE STATISTICS												
Variable	CSG	FNL	LQT	OEX	PFT	ASE	DVP	FSZ	FAG	IVT	MGO	CIN
Mean	0.054	0.671	1.817	0.748	8.614	1.251	0.395	14.231	36.559	0.132	0.326	2.686
Minimum	-0.043	0.160	0.746	0.281	-0.062	0.593	0.126	11.420	23	0	0.225	0.018
Maximum	1.217	0.785	2.832	0.993	16.741	4.581	0.732	18.673	58	2.583	0.431	3.496
Std. Dev.	0.032	0.389	0.918	0.410	6.908	1.069	0.313	9.348	31.129	0.179	0.261	1.268
Skewnes	0.105	0.551	1.349	-0.125	1.406	2.812	0.420	-2.128	6.349	0.617	0.184	1.328
s												
Kurtrosis	0.192	0.166	1.428	1.083	1.257	2.463	0.128	1.583	2.016	5.246	1.348	3.973
Jarq-Bera	0.028	0.258	0.257	0.163	0.017	0.160	0.047	0.182	0.155	1.148	0.017	1.760
Prob.	0.271	0.164	0.092	0.206	1.384	0.283	1.004	1.611	0.192	0.001	0.251	0.002
Obs.	115	115	115	115	115	115	115	115	115	115	115	115

Source: Authors' computation, 2024

Table 1 presented descriptive statistics of variables. The Corporate Sustainable Growth (CSG) has a mean value of 0.054, with lowest and highest values of -0.043 and 1.217 respectively. The standard deviation of 0.031 showed that data of CSG are clustered around the average. Financial Leverage (FNL) mean value is 0.671, with minimum value of 0.160, greatest value of 0.785 and standard deviation of 0.389. This showed that financial leverage data were evenly distributed around the mean value. Liquidity (LQT) minimum and maximum figures are 0.746 and 2.832 respectively, with an average figure of 1.817 and standard deviation of 0.918, which implies that liquidity data were moderately around the mean. The smallest value of Operating Expenses (OEX) is 0.281, while largest value is 0.993, with average value and standard deviation of 0.748 and 0.410 respectively. The mean value and standard deviation value showed that operating expenses data were widely scattered.

In addition, the average figure of Profitability (PFT) is 8.614, with standard deviation of 6.908, least and foremost figures of -0.062 and 16.740 respectively. The average and standard deviation figures implied that profitability data were not widely varied from the mean. The mean value of Assets Efficiency (ASE) is 1.251, with smallest and largest figures of 0.593 and 4.581 respectively and standard deviation of 1.069. Standard deviation value and mean value implied that assets efficiency data varied widely from mean value. Dividend Payout (DVP) lowest limit and foremost values are 0.126 and 0.732, while the average value is 0.395, with standard deviation of 0.313. This showed that standard deviation value is close to the mean value. Firm Size (FSZ) has a minimum figure of 11.420, maximum value of 18.673, with a mean

figure of 14.231 and standard deviation of 9.348, which is far from mean value. Firm Age (FAG) mean value is 36.559, with smallest and highest values of 23 and 58 respectively and standard deviation of 31.129. The minimum and maximum values of Innovation (IVT) are 0 and 2.583 respectively with mean value 0.132 and standard deviation value of 0.179. Managerial Ownership (MGO) lowest figure is 0.225, highest figure is 0.431, mean value 0.326 and standard deviation 0.261. Capital Intensity (CIN) has minimum figure of 0.018, maximum figure of 3.496, mean figure of 2.686 and standard deviation figure of 1.268. The standard deviation showed that capital intensity data were evenly distributed around the mean figure.

Furthermore, table 1 also showed that corporate sustainable growth, financial leverage, liquidity, profitability, assets efficiency, dividend payout, firm age, innovation and capital intensity were positively skewed with positive skewness figures of 0.105, and 0.551, 1.349, 1.406, 2.812, 0.420, 6.349, 0.617 and 1.328 respectively.

				TABLE 2.	CORRELAT	ION MATR	IX OF THE \	ARIABLES				
	CSG	FNL	LQT	OEX	PFT	ASE	DVP	FSZ	FAG	IVT	MGO	CIN
CSG	1.000											
FNL	-1.258	1.000										
	(0.023)											
LQT	-0.296	-0.036	1.000									
	(0.001)	(0.004)										
OEX	-0.063	-0.436	0.105	1.000								
	(0.138)	(0.107)	(0.084)									
PFT	0.169	0.523	-0.093	-0.125	1.000							
	(0.003)	(0.004)	(0.061)	(0.083)								
ASE	0.203	0.044	0.048	-0.018	-0.024	1.000						
	(0.022)	(0.048)	(0.105)	(0.003)	(0.134)							
DVP	0.063	-0.046	-0.019	0.029	0.064	0.019	1.000					
	(0.037)	(0.039)	(0.073)	(0.045)	(0.058)	(0.07)						
FSZ	0.142	-0.186	0.335	-0.384	0.267	0.175	0.306	1.000				
	(0.040)	(0.032)	(0.011)	(0.000)	(0.001)	(0.002)	(0.004)					
FAG	0.046	0.026	-0.008	-0.069	0.232	0.075	-0.021	-1.972	1.000			
	(0.096)	(0.071)	(0.053)	(0.078)	(0.003)	(0.001)	(0.002)	(0.136)				
IVT	0.036	0.479	0.027	0.035	-0.312	-0.072	0.073	0.136	-0.064	1.000		
	(0.104)	(0.106)	(0.108)	(0.093)	(0.106)	(0.043)	(0.033)	(0.016)	(0.025)			
MGO	-0.005	-0.012	0.239	-0.078	-0.052	0.133	-0.183	0.075	0.023	0.143	1.000	
	(0.107)	(0.098)	(0.003)	(0.092)	(0.080)	(0.046)	(0.004)	(0.003)	(0.002)	(0.004)		
CIN	0.082	0.068	0.128	-0.083	0.154	0.328	0.254	-0.331	0.028	-0.031	0.053	1.000
	(0.075)	(0.051)	(0.041)	(0.036)	(0.016)	(0.029)	(0.038)	(0.042)	(0.039)	(0.037)	(0.028)	

# 4.2 Correlation matrix

Source: Authors' computation, 2024

The correlation matrix results in Table 2 showed that Corporate Sustainable Growth (CSG) has an adverse and substantial link with Financial Leverage (FNL) and Liquidity (LQT) with values -1.258 and -0.296 and probability of 0.023 and 0.001 respectively that are significant at 5%, but has negative and insignificant correlation with Operating Expenses (OEX) and Managerial Ownership (MGO) with values of -0.063 and -0.005, and probability values of 0.138 and 0.107 that are not significant. The Corporate Sustainable

Growth (CSG) has positive and important correlation with Profitability (PFT), Assets Efficiency (ASE), Dividend Payout (DVP) and Firm Size (FSZ) with values of 0.169, 0.203, 0.063 and 0.142, with probability of 0.003, 0.022, 0.037 and 0.040 respectively. It has favourable but weak link with Firm Age (FAG), Innovation (IVT) and Capital Intensity (CIN) with values of 0.046, 0.036 and 0.082 with probability of 0.096, 0.104 and 0.075, which are not significant at 5%.

The connection among the predictor variables showed that FNL is favourably linked with PFT, ASE, FAG, IVT and CIN. LQT is positively correlated with OEX, ASE, FSZ, IVT, MGO and CIN. Also, OEX is positively correlated with DVP, FSZ, FAG and CIN. ASE is positively with FSZ, DVP, FAG, MGO and CIN. DVP is positively related with FSZ, IVT and CIN. FSZ is positively related with IVT and MGO. FAG is positively correlated with MGO and CIN. IVT is positively related with MGO and MGO is positively related with CIN. Moreover, Table 2 results also revealed that all the variables considered by this research work have the values less than 0.80, the threshold suggested by Gurajati and Porter (2009). This entailed that there is absence of multi- collinearity in the data, since none of predictor variables has correlation coefficient greater than 0.80.

## 4.3 Diagnostic tests

BLE 3. DIAGNOSTIC (MULTICOLLINEARITY, HETEROSCEDASTICITY AND SERIAL CORRELATION) TES						
	Independent variable	Variance inflation factor valu	le	Tolerance value		
	FNL	1.164		0.859		
	LQT	1.098		0.911		
	OEX	1.342		0.745		
	PFT	1.735		0.576		
	ASE	1.468		0.681		
	DVP	1.307		0.765		
	FSZ	1.151		0.869		
	FAG	1.430		0.699		
	IVT	1.430		0.498		
	MGO	2.006		0.958		
	CIN	1.072		0.933		
	Heteroscedasticity Breusch-F	Pagan Chi-square (1) = 0.648.	Prol	b. (Chi-square) = 0.146		

TABLE 3. DIAGNOSTIC (MULTICOLLINEARITY, HETEROSCEDASTICITY AND SERIAL CORRELATION) TEST RESULTS

Source: Authors' computation, 2024

In addition to correlation matrix, this study used variance inflation factor and tolerance values to investigate presence of multicollinearity among the predictor variables used in this study. Table 3 revealed that none of the predictor variables reported variance inflation factor value of 10 and tolerance value of 1.0 (the rule of thumb of Gujarati and Porter 2009). These results buttress correlation matrix results that there are no multicollinearity problem in the data and also indicated that the model is suitable for this research work. Also, result of Breusch-Pagan chi-square of 0.648, with probability of chi-square of 0.146, which is not significant at 5%, indicated the absence of heteroscedasticity problem in the variables of this research work.

TABLE 4. MODEL SELECTION TEST RESULTS							
	Restricted	Unrestricted					
	Pooled OLS Model	Fixed Effect Model	Random Effect Model				
R-Square	0.542	0.683	0.596				
Adjested R-Square	0.491	0.651	0.514				
F-Statistic	15.718	21.106	18.738				
Prob. F-Statistic	0.004	0.000	0.001				
Durbin-Watson	1.693	1.895	1.753				
Hausman Test Chi-square statistic = 6.284, p-value = 0.0176							

Source: Authors' computation, 2024

Table 4 showed the concise results of restricted pooled OLS model and unrestricted (fixed effect and random effect) model. Results from Table 4 indicated that unrestricted (fixed effect and random effect) model is better than restricted pooled OLS model. Furthermore, unrestricted model subjected to Hausman test in order to determine better model that can report the influence of predictor variables on dependent variable. Hausman test result revealed that fixed effect model is better than random effect model, since chi-square of Hausman test is 6.284 with  $\beta$ -value of 0.0176, that significant at 5%. Consequently, results of fixed effect model were presented and interpreted.

# 4.4 Fixed effect regression

TABLE 5. FIXED EFFECT REGRESSION RESULTS								
Dependent Variables: CSG								
Independent Variable:	Coefficient	Std. Error	t-value	p-value				
FNL	-0.026	0.021	-1.209	0.004				
LQT	-0.104	0.296	0. 351	0.025				
OEX	-0. 172	0.089	-1.923	0.167				
PFT	0.139	0.671	0.207	0.019				
ASE	0.117	0.448	0.261	0.026				
DVP	-0.082	0.607	-0.135	0.023				
FSZ	0.075	0.035	2.104	0.033				
FAG	0.023	0.120	0.191	0.068				
IVT	1.239	1.745	0.710	0.041				
MGO	0.082	0.594	0.138	0.163				
CIN	-0.016	0.012	-0.495	0.175				
CONS	2.248	2.589	1.152	0.013				
R-Squared =	0.6703	Adj-R-Square	ed =	0.6042				
F-Statistics =	15.5735	Prob. of F-Statistics = 0.0000						
Dubin Waston =	1.9046							

### Source: Authors' computation 2024

The fixed effect regression results in Table 5 revealed R-squared value of 0.6703; this showed that all the predictor variables in the model accounted for more than 67% changes in the dependent variable. The remaining percentage of less than 33% of the variations explained by other variables not captured in this study. The F-Statistics figure of 15.5735 with p-value of 0.0000 indicated that jointly all the predictor variables considered in this study has significant influence on corporate sustainable growth of sampled

companies. It also showed a goodness of fit and validity of the model. Durbin-Waston value of 1.9046 foreboded nonexistence of first order serial correlation problem of regression in the model and also displayed that auto-correction impediment did not exist in the model.

Results from Table 5 also exhibited that Financial Leverage (FNL) has an adverse and substantial influence on Corporate Sustainable Growth (CSG), since computed  $\beta$ -value is -0.026, t-value is -1.209 and p-value is 0.004. This implied that increased in financial leverage decreased corporate sustainable growth and 1% increase in financial leverage, decreases corporate sustainable growth of samples companies by more than 0.02%. This result is concord with the studies of Akhakumeh et al. (2022), Abdullahi (2016) and Vasiu et al. (2018) and contrary to the studies of Rahim (2017) and Saridakis et al. (2017).

Liquidity (LQT) has undesirable and fundamental influence on Corporate Sustainable Growth (CSG) of sampled firms with  $\beta$ -value of -0.104, t-value of -0.351 and p-value of 0.025. This indicated that increased in liquidity reduces corporate sustainable growth and 1% increase in liquidity, reduces corporate sustainable growth by more than 0.10% in sampled companies considered by this study. This finding supports the works of Leon (2020). Ali et al. (2019) and Hartono and Utami (2016) and disagreed with the studies of Huang and Zhang (2015) and Tajnikar et al. (2016).

With a  $\beta$ -value of -0.172, t-value of -1.923 and p-value of 0.167 Operating Expenses (OEX) has an adverse and negligible impact on Corporate Sustainable Growth (CSG). Results also showed that increased in operating expenses, decreased corporate sustainable growth and 1% increase in operating expenses decreases corporate sustainable growth by more than 0.16%. This finding confirmed studies of Akhalumeh et al. (2022) and Spesha and Woerter (2018) but contrary to the studies of Momcilovic et. al. (2015) and Nor et. al. (2020).

Profitability (PFT) has a vigorous and substantial impact on Corporate Sustainable Growth (CSG) due to the fact that calculated  $\beta$ -value of 0.139, t-value of 0.207 and p-value of 0.019. This implied that increased in profitability, increased corporate sustainable growth and 1% rose in profitability of samples companies increased their sustainable growth by more than 0.13%. This result is in agreement with the studies of Rahim and Saad (2014) and Tefera et. al. (2017) and disagreed with the studies of Vasiu and Ilie (2018) and Feng et al. (2020).

Assets efficiency has a considerable influence on corporate sustainable growth and the considerable influence is positive with  $\beta$ -value of 0.117, t-value of 0.261 and p-value of 0.026. This showed that as assets efficiency of sampled firms moved upward, their sustainable growth increased and 1% increased in assets efficiency increased sustainable growth by more than 0.11%. This outcome is consistent with studies is Osazuwa and Che-Ahmad (2018) and Purwanto and Agustin (2017) and contradicted to the studies of Bui et al. (2021) and Hassan and Hart (2016).

Dividend payout has an adverse influence on corporate sustainable growth and the adverse influence is significant. This can be confirmed from  $\beta$ -value of -0.082, t-value of -0.135 and p-value of 0.023. The results showed that as dividend payout of sampled companies increased, their sustainable growth decreased and 1% increase in dividend payout, decreases the their sustainable growth by more than 0.08%. This result is in harmony with the studies of Saridakis et al. (2017) and Usman et.al (2020) and discordance with the study of Hartono and Utami (2016).

The influence of firm size on corporate sustainable growth is favourable and statistically significant with  $\beta$ -value of 0.075, t-value of 2.104 and p-value of 0.033. This showed that firm size impinged sustainable growth of companies considered by this study and 1% increased in firm size caused the sustainable growth of samples firms to increase by more than 0.07%. This study aligned with the studies of Fonseka and Tian (2016) and Ying et al. (2019) and opposed to the finding of Jovic et al. (2016).

Results in Table 5 also showed that firm age has positive but trivial influence on corporate sustainable growth, since calculated  $\beta$ -value is 0.023; t-value is 0.191and p-value is 0.068. This hinted that increased in firm age lead to raise in corporate sustainable growth and 1% soared in sampled companies' age shoot up their sustainable growth by more 0.02%. This result corroborated research studies of Coban (2014) and Edwards (2014), and contradicted finding of Al-Rdaydan and Chazalat (2016).

Innovation has vigorous and substantial influence on corporate sustainable growth, since calculated  $\beta$ -value is 1.239, t-value is 0.710 and p-value is 0.041. This revealed that as sampled firms increased their innovation, their sustainable growth also increased, and 1% increased in Innovation, increased their sustainable growth by more than 1.23%. This stutted studies of Mubeen (2017) and Ryabova and Samodelkina (2018) and in defiance with the study of Feng et al. (2020).

The impact of managerial ownership on corporate sustainable growth is positive but not statistically substantial, since computed  $\beta$ -value is 0.082, t-value is 0.138 and p-value is 0.163. This revealed that upward move of managerial ownership of samples companies increased their sustainable growth and 1% increased in their managerial ownership, increased their sustainable growth by more than 0.08%. This outcome is in consistent research works of Arora et al. (2018) and Edwards (2014), and opposed the study of Anton (2016).

Capital Intensity has unfavourable and negligible influence on corporate sustainable growth due to the fact that computed  $\beta$ -value of -0.016, t-value of -0.495 and p-value 0.175. This showed that increased in capital Intensity, increased corporate sustainable growth of sampled companies and implied that as capital Intensity increased by 1%, corporate sustainable growth decreased by more than 0.01%. This finding supported the outcomes of studies of Ali et al. (2019) and Akhalumeh et al. (2022) and against the study of Osazuwa and Che-Ahmad (2016).

## 5. CONCLUSIONS AND RECOMMENDATIONS

Corporate attributes such as firm size, liquidity, leverage, assets efficiency, innovation, firm age, profitability, managerial ownership and other characteristics of have been identified as some of the factors that influence company's sustainable growth. In line with this statement, this research study tries to contribute to the existing studies in the literature by investigates the influence of corporate attributes on sustainable growth of quoted conglomerate companies in Nigeria. Data collected from financial reports of five conglomerate firms were analysed using descriptive statistics, correlation matrix and fixed effect regression technique.

Results of the fixed effect regression model revealed that profitability, assets efficiency, firm size and innovation have positive and significant influence on sustainable growth. However, firm age and managerial ownership have positive but trivial impact on sustainable growth. Furthermore, financial leverage, liquidity and dividends payouts have adverse and considerable effect on sustainable. Whereas, operating expenses and capital intensity have undesirable and ignorable impact on sustainable growth. Conclusively, all the predictor variables (the corporate attributes) considered by this study jointly has positive and significant impact on sustainable growth of listed conglomerate companies in Nigeria.

Based on findings, this research work recommends that management of listed conglomerate firms in Nigeria should continue to sustain and further ameliorate their profitability, assets efficiency, size and innovation, since these corporate attributes have favourable and substantial influence on their sustainable growth. Also, listed conglomerate companies in Nigeria need to reduce their financial leverage, liquidity and dividends payout in order to improve their sustainable growth, due to the fact that these corporate attributes have adverse and significant impact on their sustainable growth.

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