CORPORATE SUSTAINABILITY ACCOUNTING AND LONG-TERM GROWTH OF QUOTED COMPANIES IN NIGERIA

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Abstract

This study is an empirical examination of corporate sustainability accounting and Long-term growth of listed companies in Nigeria. This study was carried out of the failure of many companies on sustainability matters and arguments that sustainability matters are costs burden to entities. The specific objectives of the study were to examine the influence of human assets sustainability, social sustainability, economic sustainability and environmental sustainability on sustainable growth of listed companies in Nigeria. Ex-post facto research design was adopted in the study. The population was made up of the one hundred and seventy-six (176) companies from twelve sub-sectors listed firms actively traded in stocks on the floor of the Nigerian Exchange Group (NGX) as at 2018 financial year to December 31, 2023, financial years. Judgement sampling technique was used to select the samples for the study. Data were from secondary sources. The data were analysed using descriptive statistics and multiple regression analyses. The results showed that human Assets sustainability, social sustainability, economic sustainability and environmental sustainability have significant positive influence on long-term growth of listed companies in Nigeria. It was concluded that corporate sustainability accounting (human sustainability, social sustainability, economic sustainability and environmental sustainability is vital key to long-term growth of quoted companies in Nigeria. It recommended that, listed companies in Nigeria should invest more on sustainability matters - human assets sustainability, social sustainability, economic sustainability and environmental sustainability for significant influence on sustainable growth and investors should consider companies' sustainability evidence before considering investments.

Keywords: Corporate sustainability accounting, Human Assets Sustainability, long-term growth, quoted companies, Nigeria.

Introduction

The term 'corporate sustainability' surfaces during 1990s and 2000s, which simply means corporate bodies creating a sustainable value for the present and for the future. It is a term used to broadly indicate initiatives and actions aimed at the preservation of a particular resources. Corporate sustainability is an alternative to the traditional growth and profit-maximization model. The idea is that of meeting the present economic needs without reducing the ability of future generations to meet their own economic needs. This has become a popular approach in the business world's implementation of sustainable development, referred to as corporate sustainable development. Companies now face strategic, financial, and operational overturn of their current business operations in striving towards this green policy initiatives and agreements as well as external stakeholders demanding corporate sustainability practices on one hand as well as the rising internal executive board pressure for profit-maximization issues that will impact firms' sustainable growth in the coming decades. Sustainability is essential to thrive in the emerging green economy. Sequel to this matter, companies will need to adopt sustainability frameworks to access capital, attract and retain investors and new employees' talent, enter new markets, fund modernization and CSR projects, support R&D costs, and digitize their business for future engagement with customers.

Over years, experts in the field of sustainability such as GRI and TÜV SÜD among others have supported companies with sustainability services. These services provide a strong foundation to structuring a company's sustainability efforts, implementing sustainability frameworks, and building more sustainable businesses and credible operations for successful sustainability accounting and reporting. In order to avoid firms from likely considering the minimum reporting, the Nigerian Exchange Group Limited (NGX) brought-out sustainable reporting principles in December 2016, seeking to improve corporate reporting after Sustainable Development Disclosure Discussion on 8 June, 2016, with interested parties concerning

the sustainability reporting guides. The disclosures pattern, coupled with the factual value system of reporting as well as the commencement of mandatory sustainability accounting and reporting were to take effect from financial year ended December 31, 2018. From the sustainability reports, corporate sustainability accounting and reporting has its roots in the traditional accounting practice (Lodhia & Hess, 2014). Thus, in line with the traditional accounting practice, sustainability accounting and reporting includes an internal component which requires management of sustainability issues, often referred to as sustainability management, and an external reporting element is referred to as sustainability accounting.
Sustainability accounting is the reporting of non-financial information as a result of an organisations performance to diverse stakeholders. The report generally boarders on four distinct areas of practices otherwise called pillars of sustainability namely, human assets sustainability, economic sustainability, social sustainability and environmental sustainability. Environmentally, sustainable practices can help protect natural resources, mitigate and adapt to climate change and promote biodiversity. Socially, sustainability practice focuses on the need to put people first in development processes and empowering the people for resilient societies. From the human perspective, sustainability practice aims to invest in the health and education systems, access to quality services, nutrition, knowledge and skills to maintain and improve the human capital in society while economically, sustainability practices focus on balancing economic growth with the development of positive change for environment and humanity (Khan, 2021). In collective terms, these issues of corporate sustainability accounting on firms' growth have given researchers a great concern.

Statement of the Problem

Discussing corporate sustainability commitments without balancing firms' long-term or sustainable growth is problematic. This is because, the risks and pressure face by firms on sustainability matters have cause many firms to fail to keep to its promises and some have becoming unethical, lacking progression and long-term growth while others have folded up in Nigeria yet solution to corporate sustainable growth from status quo is yet to be determined. In survey conducted by Bain in 2022, of the 300 sampled multinational companies, only 2% of the companies achieve or exceed their sustainability goals that the companies have originally set while even big companies such as Amazon, Netflix, Exxon Mobil, Samsung, 3M among other have all failed to their sustainability promises and ethics (Marsh, 2023). This means that many companies have fail to keep sustainability promises, as actions speaks louder than words. In today's business world, there is some level of awareness of human, social, economic and environmental sustainability but Nigeria's situation remains unknown. It would be wrong to sustain others while the firms itself not sustainable, because no one can give what they do not have (Nemo dat quod non habet).

Investors are even seeking for businesses that can evidence their corporate sustainability without knowing whether the firms are sustainably growing. Social awareness and fairness are dictating consumers behaviour. Transparency in how organisations are governed is being demanded by employees and customers alike. All these factors have inspired the need for businesses to account and report on their non-financial performance – sustainability accounting. Also, there is apparent lack of consensus among researchers as to the effect of sustainability accounting on firms' long-term growth. This is because previous studies have not presented a definite result about the direction of the outcome of the two constructs nor predict sustainable growth model. Therefore, the main objective of the study was to examine corporate sustainability accounting and sustainable growth of listed companies in Nigeria so as to predict firm's long-term growth model. Specific objectives were to:

i. Examine the influence of human assets sustainability on long-term growth of listed companies in Nigeria.
ii. Analyse how social sustainability influence the long-term growth of listed companies in Nigeria.
iii. Ascertain how economic sustainability impact the long-term growth of listed companies in Nigeria.
iv. Evaluate the influence of environmental sustainability on long-term growth of listed companies in Nigeria.
v. Determine the joined influence human assets sustainability, social sustainability, economic sustainability and environmental sustainability on long-term growth of listed companies in Nigeria.

Research Questions

Five (5) objective questions were raised in line with the objectives:

i. What is the influence of human assets sustainability on sustainable growth of listed companies in Nigeria?

ii. How does social sustainability influence the sustainable growth of listed companies in Nigeria?

iii. What is the impact of economic sustainability on sustainable growth of listed companies in Nigeria?

iv. How does environmental sustainability influence sustainable growth of listed companies in Nigeria.

v. What is the joined influence of human assets sustainability, social sustainability, economic sustainability and environmental sustainability on sustainable growth of listed companies in Nigeria.

Research Hypotheses

The following null hypotheses were framed to guide the research as:

H_{O1}: Human assets sustainability does not significantly influence sustainable growth of listed companies in Nigeria.

H_{O2}: Social sustainability does not significantly influence the sustainable growth of listed companies in Nigeria.

H_{O3}: There is no significant impact of economic sustainability on sustainable growth of listed companies in Nigeria.

H_{O4}: Environmental sustainability does not significantly influence sustainable growth of listed companies in Nigeria.

H_{O5}: There is no significant joint influence of human assets sustainability, social sustainability, economic sustainability and environmental sustainability on sustainable growth of listed companies in Nigeria.

Literature Review

Conceptual Review

According to Sustainability Accounting Standards Board, SASB conceptual framework (2017), corporate sustainability refers to corporate activities that maintain or enhance the ability of the company to create value over the long term. Sustainability accounting is often used to generate value creation within an organisation. Sustainability accounting refers to the measurement, management, and reporting of such corporate activities. Sustainability accounting entails systems, methods, and processes of creating sustainability information for transparency, accountability, and decision-making purposes. This includes the identification of relevant sustainability issues of the company (that is, the pillars of sustainability namely; human, social, environmental and economic), the definition of indicators and measures, data collection, overall performance tracking and measurement, as well as the communication with to internal and external information recipients (Zvezdov & Schaltegger, 2022). Sustainability accounting is subdivision of financial accounting that involves the process of recognizing, measuring, disclosing and presentation of environmental, social, human and economic goals in policies and activities to external stakeholders. This report is always in an integrated form, called sustainability report.

Human assets sustainability means maintaining human assets capital. Human assets sustainability means taking care of people now and in the future. It means making sure people can live healthy, happy lives. Firms need to invest in things like schools, hospitals, and healthy food so people can thrive. They also need to reduce bad things like crime, wars, and overusing resources. If firms work together to help each people in the society, they can have a sustainable world where all people get what they need to live well. Human capital is a private good of individuals, rather than between individuals or societies. The health, education, skills, knowledge, leadership and access to services constitute human assets capital. **Social sustainability** refers to a business's impact on social systems. Such systems include society, local communities, employees, consumers and other stakeholders. If business activities harm social systems, degrading the wellbeing of future generations, then operations are not socially sustainable. Social sustainability means maintaining social capital. Social capital is investments and services that create the basic framework for society. Corporate social sustainability works with employees, their families, local communities and society at large to improve human-life quality, the environment and the economy in the long-term (Al-Qudah, 2023). **Economic sustainability** refers to practices that support long-term economic growth without negatively impacting social, environmental, and cultural aspects of the community. It refers to practices designed to create the long-term economic development of a company or nation while also managing the environmental, social, and cultural aspects of its activities. The practice describes actions that support a company's or country's long-term economic growth while simultaneously preserving the environment, society, and culture. The following are examples of general economic sustainability factors: Return on investment, Local economy and Market capacity. **Environmental sustainability** is the ability to maintain an ecological balance and conserve natural resources to support the wellbeing of future generations. The practice includes support local employment, fair trade and environmental attributes of raw material; regenerative capacity - protect the depletion of natural resources and keep the harvest rate of renewable resources within the capacity of regeneration and reuse, recycling - support the reuse, recycling practices to reduce waste, emissions, and cost and improve product efficiency (Khan, 2021).

Long-term Growth

Long-term or Sustainable growth means continuous increase in the revenue, size of the entity, market share, and profitability over time and ability to keep the business in operations in the next foreseeable years. Sustainable growth means providing more productive and lucrative possibilities for future generations. Companies earn more money and boost the profit by making the business more sustainable through reducing business costs, more innovative strategies, an improved reputation, and more new customers who value sustainability all work to increase the amount of money sustainable businesses earn. Sustainable growth rate is the rate at which the company can grow without requiring more funding or presenting operational hurdles (Duc et al., 2021). In order to define the sustainable growth rate for a particular business, shareholders must first identify the maximum growth rate their business can achieve without having to increase financial leverage or debt financing (Carlson, 2022). Maximum business growth can be achieved given the company's current profitability, assets utilization, dividend payout, and debt ratios. Businesses need to address two primary issues: growth capability and growth strategy. Growth capability refers to the firm's infrastructure: computers, office space, and personnel (Duc et al., 2021). Firms need to analyse whether there is room to grow sales revenue without adding additional infrastructure. Sustainable Growth Model is the model that predict business sustainable growth over a specific period of time considering the business causative factors influencing such business. Big firms often have sustainable growth rates somewhat less than their maximum rate of 20% as the firms distribute the excess cash to shareholders or plough back into investments (International Centre for Trade and Sustainable Development, ICTSD, 2022; Udo, 2023).

Theoretical Framework

Stakeholder theory was developed by Freeman R. in 1984. Stakeholder theory is of opinion that, organisation would try to satisfy the concerns and aspirations of powerful interested party, and some of the responses will be in the form of strategic reporting. The theory implies that disclosures of sustainability information by organisation are as a result of the pressure from interested parties. Stakeholders' theory offers an in-depth understanding of the factors that encourage decision-making and performances in relation to the social and environmental disclosure practices of business organisations. Businesses are thus responsible to these stakeholders and depend upon their continued support to sustain a successful operating environment. Stakeholder theory focuses upon defining factors encouraging the continued existence of corporations. The theory would ensure that the firms consider all interest groups in their decision making the sustainability matter. Stakeholder theory is also to help to postulate the influence of sustainability accounting on organisational sustainable growth of the listed firms in the manufacturing sector in Nigeria.

Empirical Review

Allen Institute for Artificial Intelligence (2017) examined environmental accounting and sustainable development, a study of Niger Delta area. This work was borne out of the expectation of the gap that exists between the companies operating in Niger Delta and their host communities; years of neglect, environmental degradation, pollution and massive outcry for redress which resulted to arm struggle with attendant consequences. The objective of this study is to determine how environmental accounting has influenced the sustainable development in Nigeria, particularly Niger Delta area. Environmental accounting as independent variable was measured by sustainable development variables such as infrastructural amenities, poverty eradication, health care delivery, natural disaster and pollution. Quasi experimental research design was employed in the research. Data were gathered using questionnaires which were distributed to garner opinion from accountants, auditors, environmentalist, and community leaders in six states in Niger Delta area. Chi-square, Spearman's coefficient correlation among others under SPSS Version 23 package was used to analyze the data and test the hypotheses. The result showed that there is relationship between Environmental accounting, Sustainable development and Economic Stability in Nigeria.

Nze *et al.* (2016) examined the effect of social sustainability on earnings of quoted firms in Nigeria. Data for the study were secondary and were sourced from firms' financial statements and the fact book of Nigerian Stock Exchange. The two firms studied were chosen from the oil and gas industry in Nigeria using the simple random sampling technique. The study covered a ten year period. Data were analysed using the ordinary regression analysis. The results show that social sustainability has a positive and significant effect on earnings of firms studied. Ugwu et al. (2022) evaluated the effect of human sustainability on the performance of manufacturing firms in Enugu state. The specific objectives were to: evaluate the effect of investment in health on the quality of services of the selected food, beverage and tobacco manufacturing firms in Enugu state and examine the effect of investment in education on the profitability of the selected food, beverage and tobacco manufacturing firms in Enugu State. The study used the survey approach. The primary sources were personal interview and the administration of questionnaire. A population of 4250 and 352 staff of sample size was used using Freund and William formula. 322 staff returned the questionnaire and accurately filled. That gave 91 percent response rate. The hypotheses were analyzed using Regression. The findings indicated that Investment in health had positive effect on the quality of service of the selected food, beverage and tobacco manufacturing firms in Enugu and investment in Education had effect on the profitability of selected food, beverage and tobacco manufacturing firms in Enugu State. The study concluded that investment in health and education had positive effect on the quality service and profitability of the selected food, beverage and tobacco manufacturing firms in Enugu state. Nyameh (2023) examined the impact of sustainable human resource management and organizational performance. The paper has also proposed a model for Sustainable HRM.

This study adopted exploratory research design. Data were obtained specifically from reviewing of the literature, journal articles, including textbooks, periodicals and a range of relevant secondary sources, which were combined with data from previous official studies on subject. Results revealed that human responsibility sustainability influence on sustainable organisational performance and growth include profit, market value, market share, increase in sales, productivity, product/service, quality customer, satisfaction, development of products/service and future investments. It was concluded that organizational performance for the future growth depends on the practice and application of the ideas in sustainable HRM. Camelia et al. (2020) examined investigated whether there is a positive or negative linear relationship between sustainability reporting, inadequate management of economic and governance (ESG) factors, and corporate performance and sustainable growth. The financial and market performances of firms are both analyzed in this study. Sustainable growth at the company level is introduced as a dimension that depends on sustainability reporting and the management of ESG factors. In order to achieve the main objective of the paper, the methodology focused on the construction of multi-factorial linear regressions, in which the dependent variables are measurements of financial and market performance and assessed corporate sustainable growth. The independent variables of these regressions are the sustainability metrics and the control variables included in the models of economic, social, and governance factors. This work examined the effects of ESG risk management, not only on performance, but also on corporate sustainable growth. Results showed that economic, social, and governance performance influence corporate performance and sustainable growth.

Methodology

Ex-post facto research design was used. The design was considered best for the study as it allows for the use of existing data that the researcher cannot be manipulated. The population was the one hundred and seventy-six (176) companies from twelve sub-sectors listed firms in the Nigerian Security Exchange (NSE) now the Nigerian Exchange Group (NGX) actively traded stocks on floor of the Nigerian Exchange Group

(NGX) as at 2018 financial year to December 31, 2022. Judgement sampling technique was used to select sample size of ninety-two (92) companies as follows; Alternative Security Market (AseM, 9 companies), agriculture (5 companies), Conglomerates (6 companies), Construction/ Real Estate (9 companies), consumer goods (9 companies), Financial Services (9 companies), Health (8 companies), Information Communications Technology (6 companies), Industrial Goods (9 companies), Oil and Gas (9 companies), natural resources (4 companies) and Services (9 companies) at error term of 7.2% . The choice of the period was due mandatory reporting by FRC on sustainability matters from 2018. Secondary sources of data were used consisted of the annual reports and accounts of the selected companies and formed the main sources of data of this study. In order to test the research hypotheses, multiple regression model (functional form and econometrical) was used as:

$$\mathbf{LGR_{it} = f\,(CSA_{it})} \qquad \textbf{Functional Relationship Equation} \qquad \mathbf{1}$$
$$\mathbf{Y_{it} = \alpha_0 + \alpha_1 X_{1it} + \alpha_2 X_{2it} + \alpha_3 X_{3it} + \alpha_4 X_{4it} + \varepsilon_{it}} \qquad \textbf{Econometric Equation} \qquad \mathbf{2}$$
$$\mathbf{LGR_{it} = \alpha_0 + \alpha_1 HAS_{it} + \alpha_2 SS_{it} + \alpha_3 ESit + \alpha_4 EvS_{it} + \varepsilon_{it}} \qquad \textbf{Model Equation} \qquad \mathbf{3}$$

Where; **LGR = Long-term Growth Rate**

HAS = Human Assets Sustainability (X_1) SS = Social Sustainability (X_2)
ES = Economic Sustainability (X_3) EvS = Environmental Sustainability (X_4)
$\alpha_1, \alpha_2, \alpha_3, \alpha_4$ = estimated coefficients of the independent variables
α_0 = constant term; ε = error term; i,t = company i in year t.

Description and Measurement of Variables

Variable	Description	Measurement	Aprori Sign
Long-term Growth Rate (LGR)	Sustainable growth rate means the rate of increase in the revenue, size of the entity, market share, and profitability over a given period, usually a year.	**SG = Retention Ratio x Return on Equity.** where: Retention Ratio = 1 - dividend payout ratio; and Return on Equity = Profit After Interest, Tax and Preference Dividend/Total Equity	
Economic Sustainability (ES)	This refers to practices that support long-term economic growth without negatively impacting social, environmental, and cultural aspects of the community.	Company's Sales Revenue = Product Price x Quantity (in Log10)	+
Social Sustainability (SS)	It refers to sets of actions that appear to support some social good, beyond the interests of the firm owners and which are required by law in Nigeria.	CSR Expenditure = 2% of Company's PBT (in log10)	+
Environmental Sustainability (EvS)	This is the practice and sustainability costs to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future. It includes all the incurred by companies, directly or through third parties, to prevent, reduce or repair damage to the environment arising from their operating activities.	Company's Environmental costs = environmental protection, preservation and restoration costs (in log10)	+
Human Assets Sustainability (HAS)	It is expenditure in human resources for higher productivity.	This is measured by costs of staff training and development, staff wages and salaries, contributory pension plan and directors' emoluments (in log10)	+

***Source*: Researcher's Compilation (2024).**

Descriptive and inferential statistics were used to analyse the data. Multiple regression technique was adopted to analyse the data. This was carried out with the help of Statistical Package for Social Sciences (SPSS) Version 22.0 at 5% level of significance in order to reach valid conclusions for the study.

Results and Discussions

Table 4.1: Descriptive Statistics for the Research Variables

	n	Min.	Max.	Mean	Std. Dev.	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
SS(₦'m)	460	4.05	114.70	23.40	17.11	2.23	0.20	7.21	0.39
HAS (₦'m)	460	0.01	4.55	0.95	0.82	1.90	0.20	3.73	0.39
EvS(₦'m)	460	0.12	2.51	0.40	0.40	2.72	0.20	9.13	0.39
ES(₦'m)	460	0.22	3.81	0.59	0.65	2.28	0.20	6.16	0.39
LGR	460	-39. 17	13.31	0.46	3.92	-6.23	0.20	69.97	0.39

Source: **Researcher's Computation (2024) Using SPSS.**

Table 4.1 is presentation of the descriptive statistics for the research variables. Result reveals mean values of 23.40, 0.95, 0.40, 0.59 and 0.46 for SS, HAS, EvS, ES and SGR with standard deviations of 17.11, 0.82, 0.40, 0.65 and 3.92 respectively. The Shapiro-Wilks test was used to examine the normality of these variables and the results obtained are presented in Table 4.2.

Table 4.2: Summary of Normality Test using Shapiro-Wilk test for the Research Variables

Variables	Shapiro-Wilk		
	Statistic	df	P-value
SS	0.995	460	0.881
HAS	0.603	460	0.000
EvS	0.671	460	0.000
ES	0.760	460	0.000
SGR	0.366	460	0.000

Source: Authors' computations (2024) using SPSS version 22.0.

Table 4.2 is the presentation of the summary of the results of the normality of the research variables using Shapiro-Wilk test. Result shows p-values of 0.881 for SS (p-value >0.05), 0.0000 for HAS (p-value <0.05), 0.0000 for EvS (p-value <0.05), 0.0000 for ES (p-value <0.05) and 0.0000 for SGR (p-value <0.05). The summary of the multiple regression models showing the influence of corporate sustainability accounting on listed companies' sustainable growth as presented in Table 4.3.

Table 4.3: Regression summary showing the influence of corporate sustainability accounting (CSA) on Long-trem growth of Quoted companies in Nigeria

Model	R	R Squared	Adjusted R Squared	Std. Error of the Estimate	Durbin-Watson
1	0.799	0.558	0.541	3.1497525	1.918

Source: Author's computations (2024).

Table 4.3 is the presentation of the summary result of the influence of corporate sustainability accounting on listed companies' sustainable growth in Nigeria. Result shows multiple correlation of 0.799 was obtained, which means that 79.9% was the overall contribution of the model independent variables to the dependent variable. Results also show R-Square (R^2) of 0.558 which means that 55.8% of the variation in the companies 'Long-term growth (LGR) of listed of the listed companies in Nigeria was accounted for by corporate sustainability accounting as measured by SS, HAS, EvS, ES and LGR. To examine whether there is presence of autocorrelation, the Durbin Watson test was used and the result yielded Durbin Watson statistic of 1. 918 was obtained which is greater than 1 and less than 3.00 meaning that there is no evidence of autocorrelation. Result of Analysis of Variance (ANOVA) showing whether there is a regression relationship between the dependent variable (Long-term growth as measured by LGR) and corporate sustainability accounting (SS, HAS, EvS, ES and SGR) is presented in Table 4.4.

Table 4.4: ANOVA result summary of LGR, SS, HAS, EvS, and ES of the selected Quoted companies in Nigeria

Model	Sum of Squares	df	Mean Square	F-calc.	F-crit.	p-calc.
Regression	841.285	4	410.321	47.802	2.391	0.000
Residual	1506.513	455	20.111			
Total	2347.798	459				

Source: Researchers' Computations (2023) Using SPSS.

Table 4.4 is the ANOVA result summary showing the impact of corporate sustainability accounting and financial performance of listed deposit money banks in Nigeria. From Table 4.5, the F-calculated of 20.802 was obtained with P-value of 0.000 as against the F-critical of 2.391 at 0.05 level of significance. Result shows that the F-calculated (47.802) is greater than F- critical (2.391), which means that there is a significant regression relationship between the dependent variable (Long-term growth as measured by LGR)) and the independent variables (corporate sustainability accounting - SS, HAS, EvS and ES). This result also indicates that SS, HAS, EvS and ES jointly accounted for significant variation in sustainable growth of listed companies. Parameter estimates of the multiple regression models as well as the significance of each of the parameter in the multiple regression models is as presented in Table 4.5.

Table 4.5: Coefficients of the regression SGR with SS, HAS, EvS and ES of Quoted companies in Nigeria

Model	Unstandardized Coefficients		Standardized Coefficients	t-calc.	p-value	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	0.519	6.593		0.079	0.937		
SS	2.496	0.938	0.181	2.661	0.009*	0.929	1.077
HAS	1.499	0.353	0.333	4.244	0.000*	0.699	1.430
EvS	0.662	0.280	0.180	2.362	0.019*	0.740	1.351
ES	1.068	0.355	0.256	3.009	0.003*	0.596	1.679

*Significant at 5% (P<0.05). t-cri. = 1.97, ***Source: Author s' computations (2023) using SPSS.***

In Table 4.5, the regression coefficients for the model parameters were computed showing the influence of corporate sustainability accounting on sustainable growth of listed companies in Nigeria. The results show that SS – Social sustainability (β = 0.181, Std Error = 0.938, t-calc = 2.661 and p-value = 0.009, HS – Human Sustainability (β = 0.333, Std Error = 0.353, t-calc = 4.244 and p-value = 0.000), EvS - Environmental Sustainability (β = 0.180, Std Error = 0.280, t-calc = 2.362 and p-value = 0.019) and ES - Economic Sustainability (β = 0.256, Std Error = 0.355, t-calc = 3.009, and p-value = 0.003) all have positive significant influence on Long-term growth (LGR). This implies that as SS, HAS, EvS and ES increase, LGR increases and vice versa.

The result also reveals standardised beta coefficients of 0.181, for SS, 0.333 for HS, 0.180 for EvS and 0.256 for ES. These imply that if other variables are held constant, for every ₦1 increase in SS, HAS, EvS and ES, the sustainable growth (SG) of the listed companies in Nigeria will increase by ₦0.181 ₦0.333, ₦0.180 and ₦0.256 respectively. Result in Table 4.5 reveals tolerance of 0.929, 0.699, 0.740 and 0.596 for SS, HAS, EvS and ES and Variance Inflation Factor (VIF) of 1.077, 1.430, 1.351 and 1.679 respectively as a check for the possible presence of multicollinearity. The tolerances were all greater than 0.1 while VIFs were all less than 10 indicating that there is no evidence of multicollinearity.

In summary, the predicted model therefore is:

$$\mathbf{LGR_{it} = ₦0.519 + ₦0.181SS + ₦0.333HAS + ₦0.180EvS + ₦0.256ES + \varepsilon_{it}}$$

Test of Hypotheses and Discussions of Findings

Hypothesis One was tested and the multiple regression results in Table 4.5 reveal that Social Sustainability (β = 0.181, S E = 0.938, t-calc. = 2.661, P-calc = 0.009, P-value<0.05) has significant positive influence on the Long-term growth (LG) of listed companies in Nigeria. Result also reveals standardised beta coefficient of 0.181 which implies that if other variables are held constant, for every ₦1 increase in Social Sustainability, the Long-term growth rate (LGR) of listed companies in Nigeria will increase by ₦0.181. Result also reveals that the absolute value of the t-calculated (2.661) is greater than the t-critical (1.98) at the 0.05 level of significance. The null hypothesis is rejected which means that Social Sustainability significantly Long-term growth rate (LGR) of listed companies in Nigeria will increase. Therefore, Social Sustainability significantly influence on the sustainable growth of listed companies in Nigeria. This is in line with the findings of Nze *et al.* (2016) as well as Tanwar and Rao (2024). This might be due to the ability of Social Sustainability to unlock new markets, helping to retain and attracting business partners as well as projecting the companies as socially friendly.

Hypothesis Two was tested and the result in Table 4.5 reveals that Human Assets Sustainability (β = 0.333, S E = 0.353, t-calc. = 4.244, P-calc = 0.000, P-value<0.05) has positive influence on sustainable growth of listed companies in Nigeria. Result also shows standardized beta coefficient of 0.333 which implies that if other variables are held constant, for every ₦1 increase in Human Sustainability, the sustainable growth rate of listed companies in Nigeria will increase by ₦0.333. Result also reveals t-calculated of 4.244 and t-critical of 1.98 at the 0.05 level of significance. The t-calculated (4.244) is greater than the t-critical (1.98) at the 0.05 level of significance. The null hypothesis is rejected which means that there is a significant influence of Human Sustainability on sustainable growth of listed companies in Nigeria. The values of the standardised beta (0.333) as well as the t-calculated were positive meaning that Human Assets Sustainability (HAS) has significant positive influence sustainable growth of listed companies in Nigeria. This is in line with the findings of Ugwu *et al.* (2022).

Hypothesis Three was tested and the results in Table 4.5 reveals that Environmental Sustainability (β = 0.180, S E = 0.280, t-calc. = 2.362, P-calc = 0.019, P-value<0.05) has positive impact on sustainable growth rate of listed companies in Nigeria. Result also shows standardised beta coefficient of 0.180 which implies that if other variables are held constant, for every ₦1 increase in Environmental Sustainability, the sustainable growth of listed companies in Nigeria will increase by ₦0.180. Result also reveals t-calculated of 2.362 and t-critical of 1.98 at the 0.05 level of significance. The t-calculated (2.362) is greater than the t-critical (1.98) at the 0.05 level of significance. The null hypothesis is rejected which means that there is a significant impact of Environmental Sustainability on sustainable growth of listed companies in Nigeria. From the results, it can be deduced that the values of the standardised beta (0.181) as well as the t-calculated (2.362) were positive meaning that Environmental Sustainability has significant positive impact on sustainable growth of listed companies in Nigeria. This result implies that a significant increase in Environmental Sustainability will result to significant increase in sustainable growth of listed companies in Nigeria. This result obtained is in support of the view of Allen Institute for Artificial Intelligence (2017).

Hypothesis Four was tested and the results in Table 4.5 reveal that Economic Sustainability (β = 0.256, S E = 0.355, t-calc. = 3.009, P-calc = 0.003, P-value<0.05) has significant positive influence on sustainable growth of listed companies in Nigeria. Result also shows standardised beta coefficient of 0.256 which implies that if other variables are held constant, for every ₦1 increase in economic sustainability, the sustainable growth of listed companies in Nigeria will increase by 0.256. Result also reveals t-calculated of 3.009 and t-critical of 1.98 at the 0.05 level of significance. The t-calculated (3.009) is greater than the t-critical (1.98) at the 0.05 level of significance. The null hypothesis is rejected which means that there is a significant influence of economic sustainability on sustainable growth of listed companies in Nigeria. From the results, it can be deduced that the values of the standardized beta (0.256) as well as the t-calculated (3.009) were positive meaning that economic sustainability has significant positive influence on sustainable growth of listed companies in Nigeria. This result implies that a significant increase in the amount spent on economic sustainability, will result to significant increase in sustainable growth of listed companies in Nigeria. This is collaboration with the findings of Duc *et al.* (2021).

Hypothesis Five was tested and results of ANOVA result in Table 4.5 shows the joint influence of human assets sustainability, social sustainability, economic sustainability and environmental sustainability on sustainable growth of listed companies in Nigeria. Results reveals F-calculated of 47.802 and F-critical of 2.391 at 0.05 level of significance. The F-calculated (47.802) is greater than F- critical (2.391) which means that there is significant joint influence of human assets sustainability, social sustainability, economic sustainability and environmental sustainability on sustainable growth of listed companies in Nigeria. This agrees with the opinions of Duc *et al.* (2021) and Camelia *et al.* (2020).

Conclusion and Recommendations

From the findings, it was drawn that human assets sustainability, social sustainability, economic sustainability and environmental sustainability significantly influence sustainable growth of listed companies in Nigeria. Thus, it was concluded in the study that, corporate sustainability accounting (human assets sustainability, social sustainability, economic sustainability and environmental sustainability) is key for to corporate sustainable growth for listed companies in Nigeria.
Therefore, the company's Sustainable Growth Model is predicted as:

SGR_{it} = ₦0.519 + ₦0.181SS +₦0.333HAS +₦0.180EvS + ₦0.256ES

Recommendations

It was recommended among others that;

i. Quoted companies in Nigeria should investment more in sustainability matters – human assets sustainability, social sustainability, economic sustainability and environmental sustainability for significant influence on sustainable growth;

ii. Investors should consider companies' sustainability evidence before considering investment for their investment to be sustainable; and

iii. Sustainability reports and covering the four pillars of corporate human assets sustainability, social sustainability, economic sustainability and environmental sustainability should be mandatory annual reports for regulators and failure should be stringently punished while names published in national dailies.

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