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Original Paper

Sustainability Reporting and Financial Performance of Deposit Money Banks in Nigeria

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Abstract

This study examines how sustainability reporting is useful for assessing the financial performance of listed Deposit Money Banks in Nigeria. Specifically, the study focuses on the economic, environmental and social dimensions of sustainability reporting using "Return on Assets", "Return on Equity" and "Earnings per Share" as proxies for financial performance of Deposit Money Banks in Nigeria from 2012 to 2018. The sample of the study was restricted to seventeen deposit money banks out of twenty one Banks quoted on the Nigerian Stock Exchange as at December, 2018. The required data were collected from audited annual financial statements and "sustainability reports" of the selected Deposit Money Banks for the period. A detailed analysis of the three bottom lines of profit (economic), people (social) and planet (environmental) impact was conducted. The descriptive and least squares regression analysis were adopted for the study considering the banks' sustainability reporting practices against the selected performance proxies. The study concludes that sustainability reporting practices of Banks in Nigeria have substantial impacts on the financial performances of Deposit Money Banks in Nigeria. The study recommends that enabling legislations should be put in place to mandate enhanced sustainability practices among all deposit money banks in Nigeria as well as facilitate meaningful evaluation and measurement of earnings, social and environmental impacts in all areas of bank operations in Nigeria.

Keywords

sustainability reporting, financial performance, economic dimension, social dimension, environmental dimension

1. Introduction

Optimizing shareholders' interest has traditionally dominated the corporate strategy of many organizations including Deposit Money Banks across the world. The apparent motivation for this is that organisational management (or agents) conducts the operations of the firm on behalf of the owners (or principals). The major interest of the owners of firms has often been considered paramount in order for the business to retain its capital. However, events in the last decade such as global warming, environmental degradation, etc. have raised concern over the activities of most business organizations and their adverse economic, social and environmental consequences on man and the environment. The concerns demand that organizations need to de-emphasize the narrow objective of classical economic theory and embrace sustainable corporate strategies that include goals which go beyond just maximizing shareholders' interests (Lourenco, Branco, Curto, & Eugenio, 2012).

Companies all over the world are being increasingly challenged to extend their accounting information reportage to encompass sustainability reporting practices as part of the corporate strategy and competitive advantage (Nnamani, Onyekwelu, & Ugwu, 2017). Aside adequate financial capital, companies also require strong governance and workplace practices that recognize environmental and social needs of current and future stakeholders for it to achieve long term sustainability. Recognizing and incorporating such social and environmental factors into the governance and strategic operations of the firm is referred to as Corporate Sustainability (CS). In essence, CS entails aligning the competitive activities of the organization to meet the immediate needs of the existing stakeholders without jeopardizing the continuing ability of future stakeholders in meeting future needs, thereby adding economic, environmental and social value to the firm (Price water house Coopers, 2016). The three line (Triple bottom line) values are targeted at the economy, society and environment respectively (Asaolu, Agboola, Ayoola, & Salawu, 2011).

The activities of deposit money banks affect individuals and businesses both nationally and globally. This is because, the financial sector of any economy is considered as its backbone owing to the provision of financial resources and as such, this represents a potential key driver for achieving the transition to an inclusive low carbon and resource efficient economy. Due to the lending and investment activities of banks, the financial industry has the potential for major multiplier effects if the sector adopts and disseminates responsible and transparent corporate sustainability practices through the financial capital value chain. Thus, this study is motivated by the need to examine the impact of sustainability reporting on the performance of deposit money banks in Nigeria.

1.1 Statement of Problem

Optimal Financial Performance (OFP) is pivotal to the accomplishment of deposit money banks' objectives of survival, advancement, and growth amidst consistent internal and external challenges. OFP represents the genuine interpretation of the plans and activities the organization embraces to invest property, some assets, equipment and capabilities in order to accomplish set goals.

Generally, deposit money banks strive to accomplish significant returns from their financial operations

and investment activities. Therefore, sustainability ought to be a component of all activities and processes related with environmental, economic, and social activities of the firm. The argument as to whether or not there is a nexus between company's engagement in sustainability practices and firm performance has dominated the literature. This perhaps could be attributed to the fact that most organizations' activities have engendered a lot of environmental concerns among stakeholders.

In spite of available empirical evidences spanning through past five decades across the world (Margolis & Walsh, 2003) and about ten years in Nigeria (Nwobu, 2015), there seems to be lack of convergence among the outcomes of most previous studies. There are apparently various challenges to sustainability practices ranging from difficulties of estimation and projections, materiality, understanding connections among activities and effects, building up robust indicators, verifiability and assurance and the test of applying the generally rigorous benchmarks of accounting to sustainable and development issues.

The purpose of the study is to determine the impact of sustainability disclosures on the performance of Deposit Money Banks in Nigeria by investigating the effects of economic, environmental and social sustainability dimensions on the financial performance of Deposit Money Banks in Nigeria. The study examines:

a) the impact of the three dimensions of corporate sustainability on the financial performance of Deposit Money Banks in Nigeria;

b) the impact of corporate sustainability reporting on Return on Equity (ROE) of Deposit Money Banks in Nigeria;

c) the extent to which corporate sustainability reporting affect Return on Assets (ROA) of Deposit Money Banks in Nigeria; and

d) the effect of corporate sustainability reporting on Earnings Per Share (EPS) of Deposit Money Banks in Nigeria.

2. Method

2.1 Research Design

The study takes the form of descriptive and econometric techniques aimed at identifying whether or not there is significant effect of the three metrics of corporate sustainability disclosures on three selected financial performance indicators using seventeen deposit money banks in Nigeria. The research design adopted for this study is a combination of both quantitative and qualitative methods covering a time period of ten years ranging from 2012-2018.

In order to obtain reliable information to help ensure the effectiveness of the study, the secondary data source was employed. The archival data were obtained from the audited published annual financial reports and accounts of seventeen Deposit Money Banks in Nigeria. However, the qualitative data for the independent variable (corporate sustainability) were sourced via content analysis procedure using sustainable practices checklist of the Global Reporting Initiative (GRI) in line with previous studies (Nwobu, 2015; Kwaghfan, 2015).

The population of the study consists of the entire twenty one Deposit Money Banks in Nigeria as at December 31st, 2018 as released by the Central Bank of Nigeria. Out of the twenty 21 Deposit Money Banks in Nigeria, seventeen were randomly selected representing about 81% of the entire population and the study period covered 2012 to 2018. This is what informed the use of panel data analyses. Since data could not be found for some years, the unbalanced panel techniques were employed.

The econometric model adopted for the study is adapted from Ejejiofor et al. (2016) and Nobanes and Ellili (2017) given as:

$$Y=f(X_i) \quad (1)$$

$Y = f(X_1, X_2, X_3)$ … …………………………

Where:

Y = financial performance (measured by ROE, EPS, ROA)

X_i = dimensions sustainability reporting, where i = 1, 2 & 3

X_1 = PRF (Economic dimension) measured by Profit Reporting

X_2 = PPL (Social dimension) measured by People Reporting

X_3 = PLT (Environmental dimension) measured by Reporting on Environmental Impact

e = Error term

Thus, the adopted model is:

$$ROE = \beta0 + \beta1PRF + \beta_2PPL + \beta_3PLT + e \quad (2)$$

$$EPS = \beta0 + \beta1PRF + \beta_2PPL + \beta_3PLT + e \quad (3)$$

$$ROA = \beta0 + \beta1PRF + \beta_2PPL + \beta_3PLT + e \quad (4)$$

$B_1>0$, $B_2>0$, $B_3>0$

PRF, PPL, PLT are subjectively measured as "1, if the company significantly displayed information on Profit, People and the Planet respectively, backed by quantitative figures" of "0, if otherwise the displayed information is scanty".

2.2 Hypotheses

The hypotheses of the study formulated by means of the study questions in the null form are as follows:

i. HO_1: There is no significant aggregate effect of the three dimensions of sustainability on the financial performance of Deposit Money Banks in Nigeria;

ii. $H0_2$: There is no significant effect of the dimensions of sustainability on the financial performance as measured by ROE in deposit money banks in Nigeria;

iii. HO_3: There is no significant effect of the dimensions of sustainability on the financial performance as measured by ROA in deposit money banks in Nigeria;

iv. $H0_4$: There is no significant effect of the dimensions of sustainability on the financial performance as measured by EPS in deposit money banks in Nigeria.

3. Literature Review

Literature in this study considers the conceptual and theoretical frameworks of the study as well as a review of prior empirical evidences related to the study.

3.1 Conceptual Framework of Sustainability Reporting

The concept of sustainable development creation by Brundtland committee in 1987 is primarily aimed at and formulated to mean the engagement of an entity in activities that meet the needs of the contemporary society or generation without denying or obstructing future generation the opportunity of securing their own needs (Zyadar, 2016). Sustainability defines an institution's ability to adopt extra activities that propel it towards events and changes relating to economic, social, and ecological environments as well as the risk management resulting from such environments. The ability impacts the reputation and presence of the institution as well as the opportunities of management, which promotes creativity, innovation and increases its ability to cope with the demands of the environment" (Bansal & Ivey, 2013). More concisely, sustainable development describes the developments that meet the needs of the present without impeding or compromising the ability of the future generations to meet their own needs (Brundtland, 1987).

Sustainable development has equally been thought of as the acknowledgment of the job of society in securing the assets and guaranteeing the progression of life on Earth (Albu, Nicolae, Madalna, & Iuliana, 2011). Numerous international foundations have attempted to conceptualize "sustainable development". Thus, the Organization for Economic Cooperation and Development (OECD, 2012) posited that an economic development is dependent on accomplishing net return on the state of safeguarding environmental and social frameworks by finding a method for adaptable interaction. The International Federation of Accountants (IFAC, 2006) characterized sustainable development as an institution's capacity to create continuous value as an economic unit. Analysts and scholars of sustainability agree that reasonable development depends on a triple dimension to form the fundamental strongholds of sustainability (United Nations General Assembly, 2005). These dimensions of sustainability include environment, economic and social dimensions. The Global Reporting Initiative (GRI) on her part is an international Non-Governmental Organization (NGO) working in the interest of the public towards a vision of a sustainable global economy. The GRI engages in a multi-stakeholder effort whose goal is to provide a comprehensive sustainability reporting framework that can be used by all companies around the word (GRI, 2014).

Environmental dimension represents the measurement which gives biological communities assurance (land, air, and water), conservation of vitality assets, access to inexhaustible wellsprings of assets, and increment in the capacity to adapt to the occasions and environmental changes (Smouts, 2005). Environmental sustainability activities focus on the impact of resource usage, hazardous substances, waste and emissions on the physical environment. This pillar emphasizes the ability of the environment to support a defined level of environmental quality. Operating a sustainable institution with regards to the environment implies the ability to have an operation that averts negative environmental

consequences, such as deforestation, desertification, air pollution, water contamination and erosion.

For deposit money banks to be environmentally responsible involves developing and financing products that conserve the ecosystem, natural habitats and minimize carbon footprints (Zenith Bank, 2017).

Economic dimension is the primary sustainability dimension upon which developments are made. It centers on accomplishing sustainable economic development through effective utilization of capital and assets, arrangement of essential needs and prerequisites of the individual, improvement of standard of living by amplifying returns from products and services, and accomplishment of economic justice (Godard, 2010). The economic principle of sustainability further emphasizes the importance of balancing a nation's or an institution's current economic needs with considerations for the needs and wellbeing of future generations. Economic sustainability of Deposit Money Banks, as financial institutions, entails mitigating the banks' business risks, building well-structured operational practices, investing responsibly, promoting opportunities and products for Small and Medium Enterprises (SMEs) and the financially excluded individuals, ensuring good corporate governance, and desisting from sharp practices such as money laundering, fraud and all forms of misconducts that jeopardize brand longevity (Zenith Bank, 2017).

Social dimension to sustainable development accomplishes social justice and equity in the dissemination of common social and economic assets, advances social cooperation and investment in nearby networks, creates social assorted variety, and thinks about human rights and regards for human rights (Smouts, 2005). In the financial services sector, the social sustainability pillar focuses on the impact of bank operations and that of her clients/investees on the social variable of equality, human rights, labour rights, social justice, and cultural tolerance. The socially responsibility requirements also entails banks close monitoring of vendors to avoid their involvements in child labour and human right violations.

The Nigerian Sustainability Banking Principles (NSBP) is a set of standards that have been created for the financial sector in Nigeria by the central bank of Nigeria (CBN) and the bankers' committee to signal a pledge to economic growth that is environmentally responsible and socially significant. Banks as financiers and business leaders perceive the role they play in conveying positive development impacts to society whilst securing the networks and environment in which they work. Zenith Bank (2017) opines that deposit money banks can deliver on the standards by:

a. Understanding and properly dealing with the Environmental and Social (E & S) risks and opportunities related to their particular business exercises and activities;

b. Improving economic security by improving the lives of individuals through the insurance of human rights, advancement of ladies's economic strengthening, and expanding access to fund for the unbanked portions of the economy;

c. Working together to create over the sector, the correct administrative structures, E & S, the executives limit and collaborative associations important for actualizing the standards; and

d. Measuring and reporting progress.

The business operations of the customers that the deposit money banks assess can have possible negative impacts on the environment or neighborhood networks where the customers work. These negative impacts can incorporate air or environment contamination, demolition of biodiversity, dangers to human wellbeing and security, infringement of labour rights, or removal of employments. Every one of these issues may have concealed external costs which thus impede the general growth prospects of the economy and society. Nigerian Sustainable Banking Principles is summarized in the below Table:

Table 1. Nigerian Sustainable Banking Principles (NSBP)

NSBP PRINCIPLES	DEFINITIONS
1: Business Activities	Environmental and Social Risk Management: Integration of environmental and Social considerations into Bank's lending activities.
2. Business Operations	Environmental and Social Footprints. Avoidance of negative impacts of Bank business operations
3. Human Rights	Respect for the rights of all in business operations
4. Women Economic Empowerment	Promote economic empowerment through gender inclusive workplace culture and provide products and services for women
5. Financial Inclusion	Promotion of financial inclusion and provision of financial services to individuals and communities that have limited or no access to the formal financial sector.
6. E & S Governance	Implementation of transparent E & S governance practices within the institution and access the E & S governance of clients.
7. Capacity Building	Development of capacity to identify, access and manage the E & S risks associated with bank's business activities and operations.
8. Collaborative Partnership	Collaboration across the sector and leveraging on international partnership and move the financial sector as one and ensure consistency with international standards.
9. Reporting	Regularly review and report progress in meeting the principles

Source: GTB (2017), Annual Report

The nine principles presented in Table 1 above were a brainchild of the Central Bank of Nigeria and the Bankers' Committee and adapted by GTB in the 2007 annual report as an attempt to inculcate core sustainability banking procedures and practices in the Nigerian banking sector. Basically, the principles were designed in line with the Sustainable Development Goals (SDG) which replaced the 2015 Millennium Development Goals.

3.2 Conceptual Framework of Financial performance in Deposit Money Banks

Financial performance relates to the extent to which a company financial health over a period of time is measured against some given performance indexes (Farah, Farrukh, & Faizan, 2016). The classical view of financial performance relates to the maximization of the wealth of shareholders of the firm. Kakanda, Salim, and Chandren (2016) are of the view that a firms financial performance measured by how better off the shareholders are at the end of a period, than at the beginning. Thus, the measurement of shareholders' wealth and value creation can be resolved by utilizing proportions from periodic financial information contained in the statement of financial position and statement of comprehensive income, or utilizing information on stock market costs. Here, "better off" signifies the expansion in estimation of investors from the beginning of investing their funds to as far as possible of a given accounting period (Kakanda et al., 2016).

Specific to the banking industry, financial performance is an idea depicting the financial condition of banks which are the major explanations behind the foundation and initiation of the establishments. It is utilized as a proportion of the bank's financial position amid a particular time-frame (Dufera, 2010). Financial performance is of great importance to banks because it opens the path for the bank's management to decide the dimensions of the bank's general performance, stand on the qualities and shortcomings of the performance, tied-up investment opportunities, secure the necessities and achieve the objectives of all people who have ties with the bank, upgrade the bank's competitive position, accomplish competitive advantage, give the capacity to diminish weight on stakeholder's values, and feature the importance of the bank's financial performance in the estimation of its capacity to adapt to external dangers and adjust to occasions and developments, since financial performance is viewed as a decent indicator of a bank's capacity to manage its environment (Dufera, 2010).

Financial performance assessment is characterized by the pursuit and review of outcomes based on specific criteria that are consistent with the plans and strategic objectives of the bank. These actions monitor performance and compare it with the planned objectives and determine the performance of individuals in various administrative levels in order to reach the strategic objectives of the bank (Poster & Streib, 2005).

The administration of banking establishments relies upon financial estimations to evaluate the financial performance. The estimations speak to the opposite side of the aftereffects of operational performance estimation for banks, which intend to quantify the degree to which the bank's technique accomplishes the goals. This side mirrors the financial state of the yield of the operational performance estimation process (Sinkey, 2008). The estimations appear as financial ratios got from the profitability proportions, obligation proportions, liquidity proportions, and financial administration performance proportions (productivity), which show up in different financial explanations (Babaloa & Abiola, 2013). The utilization of a significant number of these standards has been promoted so as to gauge the financial performance of banks.

Some of the performance standards include Earnings Per Share (EPS), Return On Equity (ROE), and

Return On Assets (ROA), EPS is the profitability measurement surrogate of a firm on per share basis. It is measured in Naira or Kobo. EPS captures the financial profitability of banks and other financial institutions in respect to shareholders funds (Reid & Myddelton, 2005). Authorities are in agreement that EPS represents the returns per Naira in a specified period of time, usually a financial year (Weygandt, Kieso, & Kimmel, 2010; Alexander, Britton, Jorissen, Hoogendoorn, & Mourik, 2015).

EPS is measured as Net profit after taxes divided by current number of shares.

ROE is intended to gauge the profit investors earned from the deployment of funds in the bank's capital. Gibson (2013), expresses ROE as the consequence of separating the net profit after taxes on investors' value, which incorporates paid-in capital, premiums, reserves, and held income.

ROA is intended to gauge the effectiveness of the bank's management with regards to the utilization of its advantages to produce profits. Gibson (2013) posits that it is communicated as the consequence of isolating the bank's net profit after deducting charges on the total resources of the bank.

3.3 Theoretical Framework

Stakeholders' theory, resource utilization hypothesis, and the theory of social cost are combined to provide the theoretical foundation to the study and for explanation of the effects of corporate sustainability disclosures on the financial performance of deposit money banks in Nigeria.

The stakeholders refer to the people or organizations that either impact on are affected by the activities and choices of a firm. Argandona (1998) suggests that the stakeholders' theory maintains that organizations have responsibility towards a wide scope of stakeholders such as creditors, customers, workers, government, network providers, environment, etc in additions to investors. The stakeholders' theory is hinged on the premise of individual stakeholders' value of fairness and therefore will be more motivated to create value when treated fairly and equitably by a firm (Hillman & keim, 2001).

The resource utilization and general resource based perspectives are resources and capacities, which are procured internally and which are expected to prompt further effective utilization of resources. Putting resources into social responsibility operations or activities has important outcomes on the creation or consumption of key material resources, especially those related with workers (Acquaah, 2003). Effective human resource management can cut expenses and improve workers' efficiency.

Corporate sustainability can be exhibited to positively affect representatives' inspiration and morale, just as on their dedication and faithfulness to the organization (Barney, 1991). Sustainable business practices, including fair wages, a perfect and safe working environment, preparing opportunities, wellbeing and instruction benefits for workers and their families, arrangement of childcare offices, adaptable work hours and occupation sharing, can convey direct advantages to an organization by expanding morale and profitability, while diminishing truancy and staff turnover. In the same way, efficiency benefits can enable organizations to save money on expenses for engaging and preparing of new workers (Foss, 1998).

Resources utilization perspective compliments the stakeholders' theory as firms perceive the accomplishment of stakeholders' demands as a strategic investment, requiring optimum commitment

necessary to satisfy the stakeholders. Engaging in corporate sustainability activities to profit the organization is a behavior that can be analyzed through the resource utilization hypothesis. The Resource Based Perspective thus suggests that organizations produce sustainable competitive advantages by effectively managing and controlling significant resources that are uncommon, can't be impeccably imitated, and for which no ideal substitute is accessible (Grant & Robert, 1991).

The Theory of Social Costs and Sustainability provides that emphasis on corporate non-economic impacts on the financial framework is the reason for responsibility allotment (Bharadwaj, 1972). In the final analysis, current corporate responsibility deals with managing the fair distribution of social expenses. Moreover, the social costs writing impacts by implication endeavours to estimate social performance. The terms "social cost" bring up, at an essential dimension of investigation, a similar idea. Issues emerge in the writing as to the investigation of "external economies". Accordingly, Bharadwaj (1972) asserts that external economies must be verified by the grouping of numerous private companies of related attributes in a particular area or by the jurisdiction of the industry.

The social cost dimension expects importance in welfare economics as it very well may be social incomes or social costs. The way social and private profits or misfortunes can be recognized suggests a progression of issues regarding assessment. The issue of social expenses identifies with the firm originating the expenses to their inclusion (Stabile, 1993).

The state's job in the economic framework plans is to take care of social expenses and this might be expected as the state accepts obligations so as to protect the national item and residents' welfare. Therefore, its regular pattern ought to be that of leaving no obligations to the firms that create the expense. The social cost perspective clarifies the issue to the effect that paying for social expenses involve contracting hat should be accepted by either the firm or the state (Coase, 1960). From an alternate point of view, Coase (1960) attempts to move the issue to "corporate production factors". The central purpose is that the expenses of the exchange among natives and government decide if the state mediates in the economy or not but paying for social expenses involves contracting.

3.4 Prior Empirical Studies

There are a number of previous empirical studies conducted on the subject of sustainability visited from a few perspectives. A few particular studies focus on the effects of sustainability disclosures on differing areas of firms' operations within the business environment. Olayinka and Temitope (2011) conducted analysis on the connection between Corporate Social Responsibility (CSR) and financial performance in Nigeria. The factors considered include return on assets, return on equity, people group performance, employee connection and environmental management framework. The outcome demonstrates that CSR has a positive and significant association with the financial performance measures of firms in Nigeria.

Yahya and Ghodratollah (2014) investigated the impact of Corporate Social Responsibility Disclosure (CSRD) on the financial performance of organizations recorded on the Tehran stock trade, utilizing ordinary least square multiple regression estimation technique. The CSRD was the free factor used for

estimating economic, social and environment dimensions while return on assets, return on equity and price earnings ratio were used in measuring financial performance. The analyses produced inconsistent results.

Olanyinka and Oluwamayowa (2014) carried out a study on corporate environmental disclosure and market value of Quoted Companies in Nigeria focused on the aggregate and individual impacts of corporate environmental disclosure when regressed on market value using correlation coefficients to test the hypotheses. A sample size of fifty firms quoted in Nigeria Stock Exchange (NSE) was purposively selected for analysis. The study revealed that the inclusion of environmental disclosure enhances market value of firms.

Nwobu (2015) examined the nexus between corporate sustainability reporting, profitability and shareholders' funds in Nigerian Banks. The study tested the yearly reports of eight (8) banks in Nigeria for the nearness or nonattendance of sustainability reporting. The autonomous factors utilized Profit After Tax (PAT) and Shareholders Fund (SHF) as proxies. Applying Pearson movement correlation matrix, the after tax effects of the examination demonstrated that a weak positive correlation between sustainability reporting record and Profit after Tax (PAT) with r=0.28 as well as a weak positive correlation between sustainability reporting record and investors funds with r=0.18.

Ejejiofor, John-Akamelu, and Chigbo (2016) surveyed the impact of sustainability accounting measures on the performance of corporate organizations in Nigeria. Ex-post facto design and time arrangement information were embraced. Information were gathered from yearly reports and accounts and were tested utilizing regression analysis with help of SPSS Version 20.0. The analysis found that environmental expense or cost impact positively on profit-making of corporate organizations in Nigeria.

Nobanee and Ellili (2017) investigated the impact of economic, environmental, and social sustainability reporting on financial performance of UAE Banks in Abu Dhabi Securities Exchange and the Dubai financial market during the period 2003-2013. The study employed three sustainability disclosure dimensions including economic, environmental and social dimensions against banking performance which they measured using ROE. Employing a panel data analysis technique, the outcome was that sustainability reporting just as economic, environmental and social reports have no critical impacts on the financial performance of UAE banks, regardless of whether they are customary or Islamic banks.

Nnamani, Onyekwelu, and Ugwu (2017) evaluated the effect of sustainability accounting and reporting on financial performance of listed manufacturing firms in Nigeria. Data was sourced from the financial statements of three Nigerian brewing companies from 2010-2014. Ex post-facto research design and the ordinary linear regression were used for analysis. The result showed that sustainability reporting has positive and significant effect on financial performance of sampled firms.

The evidences from these previous studies show that the relationship between corporate sustainability and firm performance have been grounded on empirical and theoretical arguments ranging from those that opine that sustainability practice reduces organizational profits, and those that suggest that it could be deployed for competitive advantage. This observed lack of convergence cumulating to the observed

mixed results is an indication that this topic of study is far from having been fully empirically settled.

3.5 Results

Table 1. Descriptive Statistics

	ROE	EPS	ROA	PRF	PPL	PLT
Mean	10.855	3.3333	2.1667	15.822	0.7222	0.8556
Median	11.000	1.0000	2.0000	17.000	1.0000	1.0000
Maximum	36.000	59.000	17.000	19.000	1.0000	1.0000
Minimum	-80.000	0.0000	-6.0000	7.0000	0.0000	0.0000
Std.Dev.	13.567	7.0392	2.7366	2.9051	0.4504	0.3535
Skewness	-3.1822	5.8996	2.4839	-1.4538	-0.9922	-2.0228
Kurtosis	23.472	45.151	14.971	4.5019	1.9846	5.0919
Jarque-Bera	1723.6	7184.7	630.03	40.163	18.635	77.789
Probability	0.0000	0.0000	0.0000	0.00000	0.0000	0.0000
Sum	977.00	300.00	195.00	1424.00	65.000	77.000
SumSq.Dev.	16383.	4410.0	666.50	751.16	18.056	11.122
Observations	90	90	90	90	90	90

Source: Author's computation using E-Views Package 8.0 Version

Table 1 above shows the maximum and minimum values of all the variables and clearly indicate that there is a wide dispersion in the measures of performance of the sampled quoted Deposit Money Banks in Nigeria. This confirms that the sampled banks are heterogeneous and the selected estimation techniques would most likely take into consideration the cross-sectional effects of each Bank. There therefore justification for the use of panel regression rather than pooled regression estimation technique. The Jargue-Bera (JB) values were all large with highly significant probability values (p-values < 0.05) signifying significant departure from normality on all the series.

Table 2. Correlation Matrix

Correlation	ROE	EPS	ROA	PRF	PPL	PLT
ROE	1.000000					
EPS	-0.487021	1.000000				
ROA	0.496654	-0.254312	1.000000			
PRF	0.282976	0.143585	0.171481	1.000000		
PPL	0.234222	0.087415	0.238530	0.167919	1.000000	
PLT	0.082279	0.118902	0.032908	0.127883	-0.043124	1.000000

Source: Author's computation using E-Views Package 8.0 Version

In examining the associations among the variables, the Pearson correlation matrix (coefficient) was employed and the results are presented in Table 2. The use of correlation test in most regression analyses is to check for multicolinearity and to explore the association between each explanatory variable and the dependent variable. Thus, Table 2 above presents the correlation between performance variables (ROA, ROE and EPS) and sustainability variables (PRF, PPL, PLT). There were no issues of multicolinearity as none of the variables are perfectly correlated; the highest correlation coefficient of 0.496654 lies between ROA and the sustainability variable.

Table 3. Regression Results

EPS		
	FIXED EFFECTS	**RANDOM EFFECTS**
	1.24	**0.658**
PRF	(1.93)	(1.66)
	[0.05]**	[0.10]***
	1.19	**1.436**
PPL	(0.846)	(1.17)
	[0.40)	[0.25]
	0.306	**0.185**
PLT	(0.187)	(0.119)
	[0.85]	[0.91]*
	15.20	**-6.083**
C	(1.456)	(-0.929)
	[0.15]	[0.35]
R-Squared	0.68	0.047
Adj-R-Squared	0.55	0.01
F-Statistic	5.37(0.00)*	1.42(0.24)
Hausman Test (Chi-Sq)		2.199(0.53)
N(n)Unbalanced	17(90)	17(90)
D-W Stat	2.02	2.32
ROA		
	FIXED EFFECTS	**RANDOM EFFECTS**
	0.533	0.041
	(1.93)	(0.299)
PRF	[0.05]**	[0.77]
PPL	**1.348**	**1.33**

	(2.23)	(2.52)
	[0.03]**	[0.01]*
	0.806	**0.34**
	(1.14)	(0.503)
PLT	[0.25]	[0.62]
C	**-7.942**	**1.55**
	(-1.77)	(0.682)
	[0.08]***	[0.50]
R-Squared	0.605	0.066
Adj-R-Squared	0.451	0.033
F-Statistic	3.93(0.00)*	2.02(0.12)
Hausman Test (Chi-Sq)		10.29(0.02)**
N(n)Unbalanced	-	17(90)
D-W Stat	17(90)	1.61
	2.08	
ROE		
	FIXED EFFECTS	**RANDOM EFFECTS**
	0.853	**1.142**
	(0.568)	(1.67)
PRF	[0.57]	[0.10]***
	4.24	**4.34**
	(1.29)	(1.56)
PPL	[0.20]	[0.12]
	0.160	**0.96**
	(0.042)	(0.27)
PLT	[0.97]	[0.79]
C	**-5.567**	**-11.38**
	(-0.228)	(-1.013)
	[0.82]	[0.31]
R-Squared	0.526	0.062
Adj-R-Squared	0.341	0.029
F-Statistic	2.84(0.00)*	1.90(0.13)
Hausman Test (Chi-Sq)	-	2.30(0.051)***
N(n)Unbalanced	17(90)	17(90)
D-W Stat	2.07	2.45

Source: Authors computation using E-Views Package 8.0 Version

Note.

1) Bold prints are Regression Coefficients; Parentheses ( ) are t-statistic while bracket [ ] are p-values

2) *, **, *** imply statistical significance at 1%, 5%, 10% levels respectively.

4. Discussion

In testing for the cause-effect relationship between the dependent and independent variables in the Performance-Sustainability model, the two widely used panel data regression estimation techniques (fixed effect and random effect) were adopted, using three measures of performance-ROE, ROA and EPS.

Table 3 presents the results of the two panel data estimation techniques (fixed effect and random effect). The results revealed differences in the magnitude of the coefficients, signs and the number of insignificant variables. The estimation of the fixed effect panel regression is based on the presumption of no correlation between the error term and independent variables; while that of the random effect considers that the error term and independent variables are correlated. In choosing from the two panel regression estimation results, the Hausman test was run based on the null hypothesis that the random effect model is most preferable to the fixed effect. A look at the p-values of the Hausman tests (0.53, 0.02 and 0.051 respectively) implies that, at 5% level of significance, the study should adopt the fixed effect, random effect and fixed effect models respectively for ROE, ROA and EPS panel regression results in drawing conclusion and making necessary inferences or deductions.

Table 3 also shows that the R-squared and adjusted R-squared values were 0.68 and 0.55 for EPS; 0.066 and 0.033 for ROA; and 0.526 and 0.341 for ROE. The above average R-squared values is realistic as it clearly shows that modeling the heterogeneity effect of each of the banks provides a better understanding of the behaviour of bank performance relative to sustainability disclosures. In addition, the F-statistics' p-values (0.00) shows that the regression models are generally significant and well specified. This implies that the performance models passed the overall significance test at the 1% level.

The result of the Earnings per Share (EPS) variable shows that Profit performance (PRF) with coefficient of about 1.24 positively impacts EPS and the impact is significant only at 10% level of significance. The positive impact is consistent with the findings of Nnamani et al. (2017).

The results social dimension measured by People Reporting (PPL) with coefficient of about 1.19 shows that people (PPL) sustainability exerts positive influence on performance in Nigerian banks, with a probability value of 0.40 showing that the positive impact is however not largely significant. This finding conforms to the findings of Nwobu (2015).

The results of the environmental dimension was measured by planet (PLT) Reporting on Environmental Impact. Planet (PLT) with coefficients approximated to 0.306 indicating that planet (PLT) sustainability exerts positive influence on performance in Nigerian banks; a probability of 0.85 shows that the positive impact is not however significant. This finding is consistent with the findings of Ejejiofor *et al.* (2016) which reveals that environmental costs do not significantly impact profit

generation. This was supported by the findings of Nobanee and Ellili (2017). The R-Squared of 0.68 shows that 68% of the total variations in EPS can be explained by the variations in Profit (PRF), People (PPL) and Planet (PLT) while 32% of the total variations is accounted for by other variables.

Profit performance (PRF) measured by return on assets (ROA) had a coefficient of 0.533 and a p-value of 0.05. The results showed a significant positive sustainability effect of profit reporting on ROA. This finding is consistent with the finding of Nnamani *et al.* (2017).

The results social dimension measured by People Reporting (PPL) with coefficient of 1.348 and p-value of 0.03, shows that the sustainability effect people (PPL) reporting has a significant positive effect on ROA and this confirms the findings of Nwobu (2015).

The results of the environmental dimension measured by planet (PLT) reporting show the environmental impact had a coefficient of 0.806 and a p-value of about 0.705. The result shows that planet (PLT) reporting has a positive but insignificant sustainability effect on ROA, which is consistent with the findings of Nobanee and Ellili (2017).

The R-Squared of 0.605 shows that about 61% of the total variations in ROA is explained by the variations in Profit (PLT), People (PPL) and Planet (PLT) while 39% is accounted for by other variables.

Profit performance (PRF) measured by return on equity had a coefficient of 0.853 and a p-value of 0.57. The result shows that profit reporting has a positive but not significant sustainability effect on ROE. The finding on the positive impact of profit is consistent with the findings of Nnamani *et al.* (2017).

The results social dimension measured by People Reporting (PPL) with coefficient of 4.24 and a p-value of about 0.20, shows that people (PPL) reporting has a positive but not significant sustainability effect on ROE. This finding conforms to the findings of Nwobu (2015).

The results of the environmental dimension measured by planet (PLT) reporting show the environmental impact had a coefficient of 0.160 and a p-value of 0.97. The result shows that sustainability measured by planet (PLT) reporting exerts positive but not significant effect on ROE. This finding is consistent with the findings of Ejejiofor *et al.* (2016).

The R-Squared of 0.526 shows that 53% of the total variations in ROE can be explained by the variations in Profit (PRF), People (PPL) and Planet (PLT) while 47% of the total variations is accounted for by other variables.

5. Conclusion

The study focused on sustainability reporting and financial performance in Nigeria deposit money banks and examined how sustainability reporting impacts on the performance of deposit money banks. A detailed analysis of the three bottom lines of profit (economic impact), people (social impact) and planet (environmental impact) was conducted. The study adopted descriptive analysis in looking at banks' sustainability reporting practices and concluded that banks' sustainability reporting practices effectively impact financial performance of deposit money banks in Nigeria. Empirical studies on bank

sustainability practices in Nigeria and the effect on financial performance provide an apparent absence of available enabling legislations for deposit money banks to make sustainability practices a core element of their operations. The study encountered the challenge of attributing figures to the impact of the three dimensions of sustainability. This is a manifestation of lack of capacity to quantitatively value the sustainability dimensions and to place the figure in the annual reports of Deposit Money Banks.

6. Recommendations

a. Enabling legislation should be put in place in Nigeria to enhance sustainability practices among all deposit money banks in Nigeria and should provide basis for meaningful evaluation and measurement of both social and environmental impacts in the areas of operations;

b. Deposit money banks should adopt rationales for prudent venture and financial policies and make appropriate operational choices, in an effort to accomplish its set goals towards creation of income, augmenting profits and accomplishment of investors' objectives;

c. Deposit money banks should issue sustainability reports in order to disclose whether the banks' objectives and activities are in consonance with the premiums of society and the environment, and should expand operation to sustainability;

d. In the course of banks' lending activities to customers, active interest should be shown in knowing cumulatively what the customer's business is that the bank is financing. In other words, only customers whose businesses actively promote the three dimensions of sustainability should attract bank financing;

e. Further studies should focus on how to enhance the capacity to place figure or quantitative values on the significant dimensions of sustainability in order to adequately capture and report the impacts of the three dimensions of sustainability on the bottom line of deposit money banks in Nigeria.

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