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GREEN ACCOUNTING PRACTICES AND VALUE OF LISTED FIRMS IN NIGERIA

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ABSTRACT

Objective: The purpose of this research was to analyze the effect of green accounting practices on the value of publicly traded Nigerian companies.

Theoretical Framework: In this topic, the main concepts and theories that underpin the research are environmental accounting and stakeholder theory, providing a solid basis for understanding the context of the investigation.

Method: The methodology adopted for this research was the ex-post facto research design. Data collection was carried out through stratified sampling, employing secondary data from the annual report of 18 listed firms on the Nigerian stock exchange. Secondary data from 2012 to 2021 period were collected from the annual report of listed firms on the Nigerian stock market. The panel Generalized Method of Moments was used in this investigation as well as other econometric tests.

Results and Discussion: The results demonstrated that green accounting practices (waste management disclosure (WMD)) is not significantly related to Tobin's Q (TQ), but was positively and significantly related to price earnings ratio (PE).

Research Implications: These findings indicate that while green accounting is essential for ensuring long-term sustainability, its present adoption and acknowledgement in Nigeria may need further progress in order to fully achieve its projected advantages. In conclusion, policymakers should do the following: promote stakeholder engagement, embed green accounting methods into business systems and support environmental preservation.

Originality/Value: The present study enhances the current body of knowledge by offering an in-depth examination of the influence of green accounting practices on the value of companies in Nigeria. While there has been research on green accounting practices, there seems to be a gap in the African setting as most studies are focused on developed nations and not emerging economies.

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PRÁTICAS CONTÁBEIS VERDES E VALOR DAS EMPRESAS LISTADAS NA NIGÉRIA

RESUMO

Objetivo: O objetivo desta pesquisa foi analisar o efeito das práticas de contabilidade verde no valor das empresas nigerianas de capital aberto.

Referencial Teórico: Neste tópico, os principais conceitos e teorias que sustentam a pesquisa são a contabilidade ambiental e a teoria dos stakeholders, fornecendo uma base sólida para a compreensão do contexto da investigação.

Método: A metodologia adotada para esta pesquisa foi o desenho de pesquisa ex-post facto. A recolha de dados foi realizada através de amostragem estratificada, utilizando dados secundários do relatório anual de 18 empresas cotadas na bolsa de valores nigeriana. Os dados secundários do período de 2012 a 2021 foram recolhidos do relatório anual das empresas cotadas no mercado de ações nigeriano. O método dos momentos generalizados em painel foi utilizado nesta investigação, bem como outros testes econométricos.

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Resultados e Discussão: Os resultados demonstraram que as práticas contábeis verdes (divulgação de gerenciamento de resíduos (ADM)) não estão significativamente relacionadas ao Q (TQ) de Tobin, mas foram relacionadas positiva e significativamente ao índice preço-lucro (PE).
Implicações da Investigação: Estas conclusões indicam que, embora a contabilidade verde seja essencial para garantir a sustentabilidade a longo prazo, a sua actual adopção e reconhecimento na Nigéria poderá necessitar de mais progressos para alcançar plenamente as vantagens projectadas. Em conclusão, os decisores políticos devem fazer o seguinte: promover o envolvimento das partes interessadas, incorporar métodos de contabilidade verdes nos sistemas empresariais e apoiar a preservação ambiental.
Originalidade/Valor: O presente estudo aprimora o conhecimento atual, oferecendo um exame aprofundado da influência das práticas de contabilidade verde no valor das empresas na Nigéria. Embora tenha havido investigação sobre práticas de contabilidade verde, parece haver uma lacuna no cenário africano, uma vez que a maioria dos estudos se concentra nas nações desenvolvidas e não nas economias emergentes.

Palavras-chave: Contabilidade Ambiental, CSR, Valor Firme, Contabilidade Verde, Tobin Q.

PRÁCTICAS CONTABLES ECOLÓGICAS Y VALOR DE LAS EMPRESAS COTIZADAS EN NIGERIA

RESUMEN
Objetivo: El propósito de esta investigación fue analizar el efecto de las prácticas de contabilidad verde en el valor de las empresas nigerianas que cotizan en bolsa.
Marco Teórico: En este tema, los principales conceptos y teorías que sustentan la investigación son la contabilidad ambiental y la teoría de las partes interesadas, proporcionando una base sólida para comprender el contexto de la investigación.
Método: La metodología adoptada para esta investigación fue el diseño de investigación ex post facto. La recopilación de datos se llevó a cabo mediante muestreo estratificado, empleando datos secundarios del informe anual de 18 empresas que cotizan en la bolsa de valores de Nigeria. Los datos secundarios del período 2012 a 2021 se recopilaron del informe anual de las empresas que cotizan en el mercado de valores de Nigeria. En esta investigación se utilizó el Método Generalizado de Momentos de panel, así como otras pruebas econométricas.
Resultados y Discusión: Los resultados demostraron que las prácticas de contabilidad verde (divulgación de gestión de residuos (ADM)) no están significativamente relacionadas con la Q (TQ) de Tobin, pero sí se relacionan positiva y significativamente con la relación precio-beneficio (PE).
Implicaciones de la Investigación: Estos hallazgos indican que si bien la contabilidad verde es esencial para garantizar la sostenibilidad a largo plazo, su actual adopción y reconocimiento en Nigeria puede necesitar mayores avances para lograr plenamente sus ventajas proyectadas. En conclusión, los formuladores de políticas deberían hacer lo siguiente: promover la participación de las partes interesadas, incorporar métodos de contabilidad verde en los sistemas empresariales y apoyar la preservación del medio ambiente.
Originalidad/Valor: El presente estudio mejora el conjunto de conocimientos actual al ofrecer un examen en profundidad de la influencia de las prácticas de contabilidad verde en el valor de las empresas en Nigeria. Si bien se han realizado investigaciones sobre prácticas de contabilidad ecológica, parece haber una brecha en el entorno africano, ya que la mayoría de los estudios se centran en las naciones desarrolladas y no en las economías emergentes.

Palabras clave: Contabilidad Ambiental, CSR, Valor Firme, Contabilidad Verde, Tobin Q.

1 INTRODUCTION

Companies aim to optimize profitability. Profitability is a measure that demonstrates a business's ability to generate profit by effectively using its existing resources. Profitability is a measure of a business's capacity to make profits by efficiently using its available resources (Kurniawan & Marietza, 2024). Nevertheless, due to the rise in stakeholder's awareness, there

has been growing public concerns about ecological depletion and regulators enforcing rigorous environmental controls over corporate activities, corporations are under enormous pressure to act in an environmentally conscious manner today (Xie et al., 2024). While ethicists argue that corporations caring about their environmental actions is a moral virtue in and of itself, some strategists believe that understanding the strategic advantage of being more environmentally conscious is critical for long-term company success (Gomez-Trujillo et al., 2024).

In order to achieve this perspective, academics must logically address a key question: Are businesses that invest more in the environment fairly compensated? The importance of green accounting practices cannot be disregarded. According to the agency theory, adopting green accounting and ecological practices is thought to be an expensive activity that tends to lead to overinvestment, waste of limited resources, and lowers firm value (Tao et al., 2024). On the contrary, other scholars, like Morrison et al. (2024); Guo et al. (2020), argue that adopting green accounting procedures may boost corporate value by drawing on stakeholder theory.

In Nigeria, entities like Dangote Group and Guaranty Trust Bank (GTB) have witnessed a significant rise in firm value over the years. The significant increase can be linked to the continuous expansion of processes, strategic investments, favorable market conditions, effective risk management, and focus on green innovation (Olatunji et al., 2018). Notwithstanding, firms like Nigerian Breweries Plc. has experienced a significant fall in its value due to factors such as rising competition, inflationary pressures, as well as government policies influencing the alcoholic beverage industry.

In Africa, the value of multinational firms are impacted by economic conditions, market competition, technological advancements and geopolitical factors (Moyo, 2024; Carandang & Ferrer, 2020). Changes in global economic situations have had a distinguished impact on firm value. During the periods of economic growth, multinational companies tend to experience an increase in firm value due to expanding markets, higher revenues, and improved profitability. Conversely, during economic downturns, firm value may decline as companies face reduced demand and lower profits (Nguyen et al., 2021). Political instability, trade wars, sanctions, or changes in government policies can disrupt business operations and create uncertainties for multinational companies (Olagunju & Ajiboye, 2022).

Green accounting practices can contribute to boosting the value of a firm by facilitating cost savings and efficiency through identification and reduction of environmental costs, such as energy consumption, waste management, and resource usage and implementing energy-efficient technologies, waste reduction measures, and sustainable resource management

strategies (Toke & Kalpande, 2024). This improved cost structure can positively impact profitability and consequently, the firm's overall value. In Nigeria, numerous firms like Lafarge make use of green accounting practices to ensure compliance with regulations and to mitigate risks. Compliance with regulations and proactive risk management can reduce uncertainties and improve long-term stability, positively influencing the firm's value (Ndifon, 2020).

While there has been research on green accounting practices, there seems to be a gap in the Nigerian setting as most studies are focused on developed nations and not emerging economies. For instance, Akprorien et al. (2022) studied the influence of corporate sustainability efficiency on value of deposit money banks (DMBs) in Nigeria. The majority of recent research have focused on the unconditional effect of green accounting on financial performance of DMBs. Several academics (Adegbie et al., 2020; Obiora et al., 2022) examined how corporate social responsibility and environmental accounting standards effect firm value of oil and gas enterprises in Nigeria. The research that is currently available, however, offers contradictory perspectives and uncertainty on green accounting methods and the value of Nigerian listed companies.

Filling this dearth in literature, this empirical study will examine to what extent-listed firms in Nigeria have performed green accounting practices and the increase in reputation, growth or otherwise that performing environmentally sustainable practices has caused. To distinguish its gap from other studies, this research will also make use of Price Earnings Ratio and Tobin's Q which was employed by (Adegbie et al., 2020) as an alternate for Market Price per Share (MPS) to ascertain the firm's value.

2 REVIEW OF LITERATURE

In order to be able to stabilize business growth with environmental accountability, green accounting is a concept in which businesses prioritize efficiency and effectiveness in using resources sustainably in their production chain (Obiora et al., 2022). The key focus of green accounting is on reducing emissions and effluents into the environment and reducing the production of wastes or pollutants. It involves adopting procedures that consume less energy, water, harmful chemicals, and other resources.

According to Lako (2019); Vandna (2018), the process of identifying, evaluating, recording, summarizing, reporting, and disclosing data on things, transactions, events, or impacts of corporate economic, social, and environmental activities on society, the

environment, and the corporation itself. Green accounting" is a style of accounting that calculates environmental costs or expenditures, capitalizes those costs, identifies environmental liabilities, and measures environmental liabilities. The use of natural resources, a company's operating impact on ecosystems, compliance with environmental regulations and laws, expanding energy-efficient operations using renewable energy, natural resource conservation and pollution prevention programs that place a focus on sustainable development and environmental improvement are all covered by green accounting (Ndifon, 2020).

According to Guo et al., (2020). Green accounting practices also include; Carbon Footprint Reporting, Waste Management Accounting, Natural Resource Accounting, Biodiversity Impact Assessment and Social and Environmental Cost-Benefit Analysis. The green accounting practices carried out by firms and their description is further evaluated in the table below:

Table 1

Green Accounting Practices

Green Accounting Practices	**Description**
Carbon Footprint Reporting	This deals with Measurement and reporting of greenhouse gas emissions associated with an organization's activities. It helps identify emission sources and assess the environmental impact. (Pacheco & Carvalho, 2022).
Waste Management Accounting	This is concerned with Tracking and measuring waste generation, disposal, recycling, and reuse practices, aiming to minimize waste and promote a circular economy. (Guo et al., 2020).
Natural Resource Accounting	This is majorly concerned with Evaluating and quantifying the use and depletion of natural resources, such as timber, minerals, and water, to ensure sustainable resource management practices. (Sadiq et al., 2023).

Source: Compiled by researchers based on literature review (2024)

The value of a company (firm value) can be used to measure the success of that company and its owners. Firm value is a gauge of business owners' wealth. It is the duty of business management to maximize shareholder wealth as effectively as possible (Oyedokun et al., 2019). A high firm value denotes a prosperous company and the maximization of shareholders' wealth because the firm value is a measure of how successful the shareholders are.

According to Haryono et al. (2016), environmental accounting practices are one method for building long-term stakeholder value in a company. Investment institutions are now taking environmental responsibility into account when making investments as a result of the growing public awareness of the advantages of doing so. The signaling hypothesis states that the dissemination of information on environmental responsibility informs stakeholders of the environmental effects of businesses' economic actions. The focus on environmental

responsibility can enhance the shift from short-term costs to be incurred by firms to environmental activities and cost that can bring sustainable benefit to the organization (Ezeagba et al., 2017).

The research conducted by Etim et al. (2024) analyzed the influence of green accounting practices on the financial performance of Nigerian oil and gas businesses. Based on empirical investigations conducted between 2013 and 2022, the study discovered that the implementation of green accounting had a substantial influence on the financial success of these companies.

The research conducted by Angelia and Lastanti (2024) investigates the correlation between Carbon Disclosure (CD), Green Accounting (GA), Green Innovation (GI), and Profitability in the business domain. A modest link was shown between CD and GA, indicating that greater levels of disclosure do not always result in more stringent green accounting standards. The research also identified a discrepancy between green innovation endeavours and immediate financial results, indicating that simple linear models may not completely comprehend the intricate interaction.

Fitriani (2024) investigates the influence of sustainable financial practices and green accounting on firm success. The study reveals that these methods have a crucial role in enhancing both environmental and financial performance, despite obstacles such as data limitations and legal restrictions.

Seun et al. (2023) studied the impact of environmental accounting practices on Nigerian aviation firms' financial performance, focusing on research, development, pollution control, and waste management. The study included five Nigerian aviation firms and used census sampling. Results showed that research and development negatively affected return on assets, while pollution control positively affected it.

The research conducted by Sukmadilaga et al. (2023) examines how green accounting affects the market value of publicly traded firms in ASEAN nations that were recipients of the Asia Sustainability Reporting Awards in 2021. The study utilizes secondary data obtained from financial reports, sustainability reports, and ESG Scoring available on the websites of 15 corporations. The findings indicate that including energy use into green accounting reporting does not have a substantial impact on business value. However, it is noteworthy that water usage has a large adverse effect. The results have the potential to enhance the interests of stakeholders and guide financial information policies.

Akprorien et al. (2022) investigated the connection between corporate sustainability efficiency and firm value in Nigeria's Deposit Money Banks. They found a slight but favorable

correlation between bank complexity and DMB market value, suggesting that DMBs step up their efforts to prioritize sustainability efficiency measures to raise stock market values. Ilelaboye and Alade (2022) analyzed the relationship between green practices and financial performance. They found that costs associated with restoration, community development, and health and security had a negative and insignificant impact on financial performance. The article suggests maintaining the payment of health and safety costs.

Obiora et al. (2022) assessed the impact of green accounting on the financial outcomes. They found that social responsibility practices had a substantial positive impact on a company's financial outcomes. Olagunju and Ajiboye (2022) studied how environmental accounting disclosure affected Nigeria's listed non-financial firms. The results showed that environmental disclosure has a favorable and significant impact on both share price and earnings per share. Adegbie et al. (2020) explored the impact of green accounting on the value of food and beverage companies listed in Nigeria, using 28 publicly traded companies as the sample. The study revealed that environmental accounting processes have a significant impact on market value.

3 THEORETICAL REVIEW

Edward Freeman's Stakeholder Theory, introduced in 1983, serves as the theoretical basis for this study. This theory helps us comprehend the relationship amid green accounting practices, corporate outcomes, and the interests of various corporate stakeholders. Unlike conventional approaches that focus solely on maximizing shareholder wealth, Stakeholder Theory argues that businesses should consider and balance the interests of all stakeholders, including shareholders, employees, customers, suppliers, local communities, and the environment (Benson et al., 2021).

When it comes to green accounting and firm value, Stakeholder Theory highlights the importance of integrating environmental considerations into a company's decision-making processes. It acknowledges that environmental impacts can affect the well-being of multiple stakeholders and addressing these impacts can lead to long-term value creation.

By adopting green accounting practices, companies can systematically measure, monitor, and report their environmental performance and impacts. These practices include accounting for environmental costs, resource usage, emissions, waste management, and other sustainability-related factors. The data generated through green accounting can aid informed decision-making and help firms align their activities with stakeholder expectations (Nguyen et al., 2021).

This study, grounded in Stakeholder Theory, aims to maximize stakeholder value, reduce environmental costs, boost the firm's reputation, and ultimately increase firm value. It encourages business managers to implement environmental practices that are crucial to non-financial stakeholders. As environmental awareness grows, businesses must manage stakeholder interests to become more eco-friendly within their operational environment (Daryanto et al., 2020). According to Daryanto et al. (2020), the key focus of Stakeholder Theory in environmental accounting is to manage environmental disclosure, value, and inclusion in financial statements for external users.

The goal of this study is to motivate corporate managers to adopt environmental practices that non-financial stakeholders consider important, thereby maximizing stakeholder value and reducing environmental costs. Society, the environment, workers, consumers, friends and family, rivals, and shareholders all count as stakeholders in green accounting, which uses Stakeholder Theory to address their needs (Deb et al., 2020). The core idea of the stakeholder model is that industries can only thrive if they benefit the majority of their stakeholders. Stakeholder interventions, according to Stakeholder Theory (Chen et al., 2023), will improve performance, environmental impact, cost savings, and environmental uncertainty. Effective green accounting practices can reduce environmental uncertainty, cost reduction and enhance economic performance.

3.1 METHODOLOGY

In this study, ex-post facto research design was adopted. Ex post facto research design examines how an independent variable (groups with particular features that already exist prior to a study) impacts a dependent variable, in accordance with Sharma (2019). Since the data were already gathered by other sources for other purposes, researchers employing secondary data do not have control over the data collection process. Ex post facto design is thus especially helpful in this circumstance.

The population for this study is 177 listed companies on the Nigeria Stock Exchange (based on the information obtained from statista.com). Based on the Strata, 18 out of these 177 were selected across the various sectors of listed firms in Nigeria. Stratified sampling was used as the sample method. Here, the population is divided into smaller groups known as strata based on traits they have in common (like race, gender, and level of education, for example). A different probability sampling technique is used to randomly sample each subgroup once it has

been divided. Based on a classification of sectors or industries, this study produced strata for Nigerian publicly traded companies. The data for this study will be gathered from secondary sources. The secondary source of data will be related online journals and information on annual reports of listed firms in Nigeria from 2012 to 2021 from Nigeria Stock Exchange website.

3.2 MODEL SPECIFICATION

To estimate green accounting practices and the value of Nigerian listed companies. The study modified the model of Adegbie et al., (2020) which is:

MPS=f (SMD, EPD) (1)

MPS=f (SMD, EPD, and FSZ) (2) (with moderator)

3.2.1 Models

MPS=β0+β1SMD +β2EPD= Model 1-without moderator

MPS=β0+β1SMD+β2EPD+β3FSZ=Model 2 with moderator

Share value proxy by Market Price per Share (MPS)
Environmental Accounting Practices proxy by
Safety Related Measure Disclosure (SMD)
Environmental Protection Disclosure (EPD)
Z=Moderator measured by Firm Size (FSZ)

This study has modified the model as:

$PE_{it} = \beta_0 + \beta_1 WMD_{it} + \beta_2 FSZ_{it} + \beta_3 TL_{it} + \beta_4 SHRE_{it} + \beta_5 NP_{it} + \beta_6 FA_{it} + \mu_{it}$ =Model 1

$TQit = \alpha 0 + \alpha 1 WMDit + \alpha 2 FSZit + \alpha 3 TLit + \alpha 4 SHREit + \alpha 5 NPit + \alpha 6 FAit + \mu it$ =Model 2

where:

PE = Price Earnings Ratio.
TQ= Tobin's Q Ratio.
WMD= Waste Management Disclosure.
FSZ= Firm's size.
TL= Total liability.
SHRE= Shareholders equity.
NP= Net profit.
FA= Firm's age.
β_0 and α_0 = Serves as intercept or constant term.
β_1 and α_0, to β_6 and α_6 = Parameter estimate of the variables.

Since the number of cross sectional observations is higher than the number of period of time (N > t), the General Method of Moments (GMM) technique was employed in this study. It should be optimal for the estimation since Ordinary Least Square (OLS) technique could not solve internal issues of the exogenous variables arising from correlation between the lag of dependent factor and the residuals. The combination of lagged dependent variable and Least Square Dummy Variable (LSDV) model makes the previous or present shocks react to present endogenous variable. The GMM technique can absorb this condition. It is developed by Arellano and Bond (1991) and later by Arellano and Bover (1995). GMM technique can solve the heteroscedasticity problems and boost the estimator's performance in the panel model (Headey, 2013).

The improved version of GMM technique, which is Dynamic-GMM technique was engaged in this study; although, Blundell and Bond (1998). Modified this technique. The Dynamic-GMM is more effective than GMM because it overcomes the challenge of weak IV that stem from GMM technique. In order to fulfil this, model (1) and (2) will turn to the following:

$$LnPEit = \beta_0 + \text{ɖ}lnPE_{it-1} + \beta_1 lnWMD_{it} + \beta_2 lnFSZ_{it} + \beta_3 lnTL_{it} + \beta_4 lnSHRE_{it} + \beta_5 lnNP_{it} + \beta_6 lnFA_{it} + \mu_{it} \quad \text{(Model 3)}$$

$$LnTQit = \alpha_0 + \pi lnTQ_{it-1} + \alpha_1 lnWMD_{it} + \alpha_2 lnFSZ_{it} + \alpha_3 lnTL_{it} + \alpha_4 lnSHRE_{it} + \alpha_5 lnNP_{it} + \alpha_6 lnFA_{it} + \mu_{it} \quad \text{(Model 4)}$$

where: ɖ and π are the coefficients of the first lag of the dependent variables in model (3) to (4) respectively.

3.3 SERIAL CORRELATION TEST

Arellano-Bond Serial Correlation tests AR (1) and AR (2) is the appropriate test statistic for GMM regressions under the hypothesis that serial correlation does not exist. The hypothesis of nonexistence of serial correlation of order one AR (1) is expected to be rejected while the null hypothesis of nonexistence of serial correlation of order two AR (2) is expected to be accepted (Roodman, 2009).

3.4 MEASUREMENT OF VARIABLES

Table 2

Definition and measurement of variables

Variables	**Measurement**	**Author**
Independent Variables		
Waste Management Disclosure	These disclosures call for information on the organization's methods for managing recyclable material that cannot be avoided, as well as the costs linked to waste management in a business's downstream as well as upstream operations along its supply chain.	Adegbie et al., (2020).
Dependent Variables		
Tobin's Q Ratio	By dividing the market value of a company's equity and liability by the book value of its assets and liabilities, the Tobin's Q is determined.	Oyedokun et al., (2019).
Price Earnings Ratio	This is computed by dividing a company's earnings per share by its share market price.	Olagunju and Ajiboye (2022).
Control Variables		
Firm Size	Natural Log of Total Assets.	Adegbie et al., (2020)
Total Liability	Natural log of total liability that is current liability plus non-current liability	Oyedokun et al., (2019)
Shareholders' Equity	Total shareholder's fund and reserves.	Olagunju and Ajiboye (2022)
Net Profit	Total Income after tax.	Adegbie et al., (2020)
Firm's Age	From the date of Incorporation, the company.	Benson et al., (2021)

4 DATA ANALYSIS AND DISCUSSION

4.1 DESCRIPTIVE ANALYSIS

Table 3

Descriptive Statistics

	PE	TQ	WMD	FSZ	TL	SHRE	NP	FA
Mean	21.54	1.14	5.11	6.15	7.90	6.38	9.71	53.83
Median	18.25	1.04	2.99	1.22	5.37	4.11	4.30	54.00
Std. Dev.	18.41	0.27	7.62	1.51	8.34	7.73	1.32	27.75
Skewness	2.8322	2.6639	2.945	4.2553	1.782409	2.473097	1.526164	0.951466
Kurtosis	16.9854	8.7299	12.3138	24.2114	6.0244	10.0558	5.1076	3.8719
Jarque-Bera	1707.601	459.1421	910.727	3917.682	163.9140	556.8685	103.1929	32.8604
Probability	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Observations	180	180	180	180	180	180	180	180

Source: Compiled by researchers based on the outputs from E-views (2024)

Table 3 shows the descriptive statistics analysis of the dataset. It shows the nature of the data being used for this study. The mean and median of the variables show their average of each dataset and the middle number or average of the two middle numbers of each dataset respectively. The result also shows that variables PE, TQ and FA fairly dispersed from their mean, while WMD, FSZ, TL, SHRE and NP widely dispersed from their mean values since the standard deviation(s) are greater than the mean. Similarly, the descriptive result shows that all the variables are positively skewed (that is are right-tailed in the distribution of the series). Finally, the kurtosis result shows that all the variables are leptokurtic having kurtosis values that are higher than 3. This implies that the variables data series are peaked to normal distribution.

4.2 DYNAMIC-GMM-ANALYSIS

The data employed in this study is a panel data with 130 observations; the dynamic generalized method of moment was employed to analyze the relationship between green accounting practices and the value of listed firms in Nigeria.

4.3 GMM FOR IMPACT OF GREEN ACCOUNTING PRACTICE ON THE VALUE OF LISTED FIRMS IN NIGERIA

Table 4

Impact of Green Accounting Practices on the value of listed firms in Nigeria

Variables Models	**Dependent Variables**	
	Price Earnings Ratio ln PE (3)	**Tobin's Q Ratio ln TQ (4)**
ln y(-1)	0.491473* (0.0000)	0.088827 (0.6711)
ln WMD	0.041201 (0.5374)	-0.014204 (0.1943)
ln FSZ	0.116519 (0.5324)	0.008543 (0.7349)
ln TL	0.074768 (0.6984)	-0.053735* (0.0000)
ln SHRE	-0.207089 (0.7182)	-0.072884 (0.1686)
ln NP	0.051825 (0.6141)	0.009472 (0.4247)
ln FA	-0.922017 (0.6337)	0.323910 (0.0640)
No. of Observations	144	144
No. of Groups	18	18
Wald Chi^2	53.02933* (0.0000)	64.61925* (0.0000)
AR(1)	-4.713509* (0.0000)	-2.717731* (0.0066)
AR(2)	-0.270755 (0.78660)	-0.232588 (0.8161)

Source: Compiled by researchers based on the outputs from E-views (2024)
Note: ln y (-1) shows the lag of ln PE and ln TQ (* *significant at 1%* & ** *significant at 5*

Table 4 shows the result of the estimated models (3) and (4). The coefficient of the lagged value of the dependent variable (PE) is 0.491473 and it is statistically significant at 1%. The coefficient of WMD is 0.041201 in Table 4 with p-value >0.05 indicating it has direct and insignificant relationship with Price earnings ratio. Also, the coefficient of FSZ is 0.116519 in Table 4 with p-value >0.05 indicating it has direct and insignificant relationship with Price earnings ratio. In addition, the coefficient of TL is 0.074768 in Table 4 with p-value >0.05 indicating it has direct and insignificant relationship with Price earnings ratio. Similarly, the coefficient of SHRE is -0.207089 in Table 4 with p-value >0.05 indicating it has inverse and insignificant relationship with Price earnings ratio. Also, the coefficient of NP is 0.051825 in Table 4 with p-value >0.05 indicating it has direct and insignificant relationship with Price

earnings ratio. Finally, the coefficient of FA is -0.922017 in Table 4 with p-value >0.05 indicating it has inverse and insignificant relationship with Price earnings ratio.

Also, coefficient of the lagged value of the dependent variable (TQ) is 0.088827 and it's statistically insignificant. The coefficient of WMD is -0.014204 in Table 4 with p-value >0.05 indicating it has indirect and insignificant relationship with Tobin's Q Ratio. Also, the coefficient of FSZ is 0.008543 in Table 4 with p-value >0.05 indicating it has direct and insignificant relationship with Tobin's Q Ratio. In addition, the coefficient of TL is -0.053735 in Table 4 with p-value <0.01 indicating it has direct and significant relationship with Tobin's Q Ratio. Similarly, the coefficient of SHRE is -0.072884 in Table 4 with p-value >0.05 indicating it has inverse and insignificant relationship with Tobin's Q Ratio. Also, the coefficient of NP is 0.009472 in Table 4 with p-value >0.05 indicating it has direct and insignificant relationship with Tobin's Q Ratio. Finally, the coefficient of FA is 0.323910 in Table 4 with p-value >0.05 indicating it has positive and insignificant relationship with Tobin's Q Ratio.

Similarly, the Wald Chi square for the estimated models 3 and 4 are 53.02933 and 64.61925 respectively in Table 4 and are both significant at 1%. That's, their p-values are less than 0.01 which indicate that all the independent variables in the model have a joint significant effect on the dependent variables.

Lastly, according to Roodman (2009), it is expected that the hypothesis of non-existence of serial correlation of order one AR (1) is rejected while the null hypothesis of non-existence of serial correlation of order two AR (2) is accepted. From the estimated models 3 and 4, the values of AR (1) are -4.713509 and -2.717731 respectively in Table 4 and are significant at 1%. Therefore, the hypothesis of non-existence of serial correlation of order one AR (1) is rejected. The values of AR (2) for models 3 and 4 are -0.270755 and -0.232588 respectively in Table 4.4 and are insignificant at 5%. Therefore, the null hypothesis of non-existence of serial correlation of order two AR (2) is accepted.

4.4 DISCUSSION OF FINDINGS

This work was set out to investigate the impact of green accounting practice on the value of listed firms in Nigeria. Findings from the analysis showed that waste management disclosure (WMD) has a negative and statistically insignificant relationship with Tobin's Q (TQ), while the same (WMD) showed a positive and statistically insignificant relationship with price earnings ratio (PE). The result on TQ contradicts the findings of (Benson et al.,

2021) who conducted a study to find the answer to the question of how environmental accounting practices affects the corporate performance of firms using 10 firms from 2012 to 2018 and found that environmental accounting significant positive effect on return on capital employed. Finally, Fauzi (2020) whose result is consistent with the findings of this research reveal that environmental accounting has a statistically significant negative relationship to Earnings per Share (EPS).

The variation in the results of various studies reviewed showed the need and call for further empirical studies and research on the impact of green accounting practice and value of listed firms in Nigeria. These findings indicate that while green accounting is essential for ensuring long-term sustainability, its present adoption and acknowledgement in Nigeria may need further progress in order to fully achieve its projected advantages.

5 CONCLUSIONS AND RECOMMENDATIONS

This study explored green accounting practices and the value of listed firms in Nigeria. The result shows that green accounting practices has an insignificant impact on the Tobin's Q ratio and a significant effect on the Price Earnings ratio of listed firms in Nigeria. Therefore, the researcher concludes that green accounting practices has an ultimate impact on the value, reputation and potential future value creation of listed firms in Nigeria.

In view of these findings of this research, the study hereby makes the following recommendations:

1. nigerian businesses should adopt environmental management systems (EMS) like ISO 14001 to improve environmental performance and reduce costs;
2. they should integrate environmental considerations into their business plans, assessing risks and opportunities, setting goals, and coordinating decisions with sustainable practices;
3. engaging stakeholders, such as clients, staff, communities, and regulators, can increase trust and create value through sustainable practices.

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