

Article

Corporate Governance Mechanisms and Enterprise Value of Nigerian Firms

Ogechi Ibeabuchi-Ani¹, Geogina Obinne Ugwuanyi², Clifford Chilasa Agbaeze³, Fidelis Anake Atseye⁴, Udemé Okon Efanga⁵, Enya G. Emori⁶, Oko Roseline Ali⁷, Erasmus Ejike Duru⁸, Nnenna Mercy Nwoko⁹, Chidi Paul Orji¹⁰

¹⁻³ Department of Banking and Finance, Michael Okpara University of Agriculture, Umudike. ^{4&6} Department of Banking and Finance, University of Calabar, Calabar. ^{5&7} Department of Banking and Finance, Alex Ekwueme Federal University. ⁸ Department of Entrepreneurship and Innovation, Federal University of Technology, Owerri. ⁹ Department of Finance and Innovation Technology, Federal University of Technology, Owerri. ¹⁰ Department of Philosophy, University of Agriculture and Environmental Sciences, Imo State, Paul.orji@uaes.ed.ng
Correspondence: **Chidi Paul Orji**, Paul.orji@uaes.ed.ng

Abstract

This study investigates the relationship between corporate governance mechanisms and enterprise value in Nigeria, focusing on three key environmental metrics: Resource Use Score, Emissions Score, and Innovation Score. Data were collected from corporate publications, including annual and independent sustainability reports. The study employed content analysis to extract relevant data, followed by descriptive statistics and panel regression analysis to estimate the model and test the hypotheses. The Hausman test was used to determine whether a fixed-effects or random-effects model was more appropriate. The results show that corporate governance mechanisms (CGMs) had a significant impact on firms' enterprise value (EV) in Nigeria. Specifically, the Resource Use Score has a statistically significant positive relationship with enterprise value. The researchers recommended that a strong governance code, as obtainable in the financial sector, be implemented in other sectors of the Nigerian Stock Exchange Market.

Keywords: Corporate governance mechanism, Enterprise value, Environmental score, Corporate environmental performance, Resource use score, Emissions score

Introduction

The concept of corporate sustainability has occupied a significant position in business literature in recent years (Taliento *et al.*, 2019; Gnanaweera & Kunori, 2018; Sukitsch *et al.*, 2015). Normally, corporate sustainability is used in corporate procedures to represent a set of relevant environmental, social and governance-related factors that allow the assessment of long-term sustainability of a firm (Taliento *et al.*, 2019; Van-Duuren, Plantinga, & Scholtens, 2016; Bourghelle, Hager, & Louche, 2009). Though the debate on the exact meaning, concept and measurement of corporate sustainability and its impact on firm performance is still ongoing. However, one of the notable definitions of corporate sustainability is “meeting the needs of a firm’s direct and indirect stakeholders, without compromising its ability to meet the needs of future stakeholders as well” (Dyllick & Hockerts, 2002; Bansal, 2005; Dufwa & Hammarström, 2015). Taliento *et al.* (2019) noted that the recent and more specific line of research in corporate sustainability, which is connected to the stakeholders’ theory, is known as ESG. Consequently, the current and more specific approach to measuring the concept of corporate sustainability clusters around the environmental impact, socially responsible behaviour and governance of companies (Taliento *et al.*, 2019; Maletic, Maletic, Dahlgaard,

Dahlgaard-Park, & Gomiscek, 2015), meaning that the concept and measure of corporate sustainability could be classified into three main groups: Environmental (E), Social (S), and Corporate Governance (G) (ESG). Hence, the concept of corporate sustainability is exclusively measured by ESG factors (Bassen & Kovács, 2008).

The first group relates to the Environment (E) and includes climate change, greenhouse gas emissions, exploitation of resources, waste, pollution and deforestation. These environmental issues have emerged in recent times as a major aspect of the discussion on the problems of economic growth and development (Uwaloma, 2011). The environmental issues have taken the form of global warming; atmospheric, soil and water pollution caused by industrial activities; and the quick decline of forest areas, noise pollution and chemical wastes and other wastes being dumped into oceans and rivers (Dutta & Bose, 2008). These issues are generally associated with industrialisation and economic growth, but one remarkable question has been at the centre of this issue: *"Is it a necessary condition of economic growth that the environment has to suffer?"* In the view of sustainable development, the answer is NO! According to Jasch (2003), where the prospects of sustainable development are in sight, it is not a necessary condition for economic growth that the environment has to suffer.

Environmental sustainability with respect to business activities has been around for a long time. Tasneem, Hamza and Basit (2016) noted that environmental sustainability was first discussed in 1844 by Emerson in his study, where he elaborated the importance of green marketing; it was further flourished by authors like Lepold (1940) and Carson (1962), who legitimised the concept through their publications of cultural movements. Additionally, the first environmental sustainability reports published by organisations were witnessed during the late 1980s and early 1990s, and these reports were published for a range of reasons, but the main driver was the requirement of disclosing toxic emissions data, especially for US companies (Tasneem *et al.*, 2016). However, in developing economies like Nigeria, environmental reporting is still at a voluntary stage.

The second group is the Social (S) dimension, and it deals with working conditions, health and safety, diversity, relationships with employees and host communities. The social factor of corporate sustainability, which is mostly known as corporate social responsibility (CSR), has the objective to balance business operations with the interests of employees, suppliers, business partners, customers, government, host communities, and society. In fact, the dimension of CSR is very complex, and it brings together the business and society. It relates to philanthropic programmes, but the CSR supports long-term programmes that initiate lasting and meaningful impact on employees and communities, and promote the welfare of other stakeholders of the business. The corporate world is becoming more socially responsible by having sensitivity towards social issues. Pita (2016) noted that it is essential for businesses to complement the government's efforts in social development, as it will affect the social structure and business sustainability.

The movement towards corporate sustainability reporting has therefore become progressive and strategic within both the developed and developing economies due to demands from internal and external stakeholders of the business for holistic

information regarding corporate sustainability factors (CSF). Hence, the debate on the relationship between corporate sustainability factors and firms' performance/value has seen a significant increase in recent years (Taliento *et al.*, 2019; Uwuigbe *et al.*, 2018; Sanna-Lena, 2015). Though according to Margolis and Walsh (2003), research on corporate sustainability has been around for more than fifty (50) years, with inconsistencies in the results. However, Miralles-Quirós *et al.* (2019) noted that the periods before and during the global financial crisis of 2008 witnessed scarce and limited research about corporate sustainability and its relationship with firms' value creation. While a significant number of the previous empirical studies concluded that there is a positive relationship between corporate sustainability factors and firms' performance, there have also been several studies resulting in negative, neutral/non-significant findings or mixed relationships as well as various causal directions (Miralles-Quirós *et al.*, 2019; Taliento *et al.*, 2019; Uwuigbe *et al.*, 2018; Tarmuji, Maelah & Tarmuji, 2016; Dibia & Onwuchekwa, 2015; Osazuwa, Francis & Izedonmi, 2013). These contradictory results could be explained by the inconsistencies in the framework adopted to measure or capture the corporate sustainability factors and financial performance/value creation (Umoren, Udo & George, 2015).

According to Miralles-Quirós *et al.* (2019), Uwuigbe *et al.* (2018), and Umoren *et al.* (2015), there is a need for more research concerning the relationship between corporate sustainability and the financial performance of firms, especially with respect to value creation. Specifically, Uwuigbe *et al.* (2018) noted that future research in the area of the subject matter in Nigeria should consider other sectors apart from the banking sector and conduct a comparative analysis across the sectors. This will help to determine the level of generalisation that is possible between various empirical studies. A comparative study of corporate sustainability across the Nigerian sectors will fill this gap and offer a strategic sustainable development policy. Furthermore, there is also, to a certain degree, a need for updated empirical studies in the subject matter, as several previous studies could be considered as outdated, due to the fast development of corporate sustainability practices, their measurement and index (Osazuwa, Francis & Izedonmi, 2013).

Objective of the Study

The objective of this study is to ascertain the impact of corporate governance mechanisms (CGM) on the enterprise value of Nigerian firms.

Research Hypothesis

Corporate governance mechanisms (CGMs) have no significant impact on firms' enterprise value (EV) in Nigeria.

Conceptual Review

Concept of Corporate Sustainability

The concept of sustainability extends beyond corporate boundaries and thus lacks a defined end-state (Papoutsis, 2018; Schaltegger, 2011; Grey, 2001). There is no generally agreed-upon definition for sustainability (Papoutsis, 2018; Farneti & Guthrie, 2009; Carter & Rogers, 2008). However, the most persistent and highly

cited definition of sustainability is that of the Brundtland Commission (1987), which describes sustainability as “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*” (Berns *et al.*, 2009; Carter & Rogers, 2008; Schaltegger & Burritt, 2005). However, applying this macroeconomic definition seems difficult for organisations, since it provides little guidance on how corporations should effectively identify present and future needs, determine the technologies to meet those needs, and understand how to balance organisational capabilities between multiple stakeholders (Gimenez, Sierra & Rodon, 2012).

Dimensions of Corporate Sustainability: Environmental, Social and Governance (ESG)

As earlier mentioned, the Environmental, Social and Governance (ESG) index is known as the three pillars or dimensions of corporate sustainability. Factually, ESG ratings have become a recognised sustainability performance measurement throughout the world (Dahlberg & Wiklund, 2018). ESG is a concept which aims to capture additional dimensions of corporate performance, which are usually not revealed in financial information (Bassen & Kovacs, 2008). According to Bassen & Kovacs (2008), traditional corporate financial statements lack the capacity to inform management and investors about the certain value of the firm, such as reputation, quality, brand equity, safety, workplace culture, strategies, know-how and a host of other assets that are more significant than ever in a knowledge-based global economy. Thus, ESG factors capture a wider scope of non-financial data on environmental, social performance and corporate governance and can be utilised to evaluate the sustainable capabilities of firms (Tarmuji *et al.*, 2016). The performance of ESG is a measure used to appraise how well firms are doing on corporate sustainability, and it consists of three main dimensions: Environmental, Social, and Governance. These three dimensions are known as the three pillars of corporate sustainability and have main categories with a good number of underlying factors. The main categories of the ESG performance according to Thomson Reuters ESG methodology are presented in the table below.

Table 1. Main Categories of Corporate Sustainability Dimensions – ESG

Environmental Dimension	Social Dimension	Governance Dimension
<input type="checkbox"/> Resource Use	<input type="checkbox"/> Workforce	<input type="checkbox"/> Management
<input type="checkbox"/> Emissions	<input type="checkbox"/> Human right	<input type="checkbox"/> Shareholders
<input type="checkbox"/> Innovation	<input type="checkbox"/> Community	<input type="checkbox"/> CSR Strategy
	<input type="checkbox"/> Product Responsibility	

Source: Thomson Reuters (2017).

Using the Thomson Reuters methodology, Sikacz & Wołczek (2018) extracted the following features as the underlying factors of the ESG main categories and presented them in Table 2 below:

Table 2. Underlying Factors of ESG main categories

Environmental	Social	Governance
Resource reduction policy	Health and safety policy	Corporate Governance
Water policy	Training and development policy	Committee
Energy efficiency policy	Diversity policy	Audit Committee
Sustainable packaging policy	Employee satisfaction	Compensation Committee
Environmental supply chain	Remuneration gap	Board structure
Policy	Net employment creation	Board diversity policy
Environmental management	Trade union representation	Board experience
Team	Turnover of employees	Audit committee independence
Reduction of toxic chemicals	Woman employees	Average board's term of office
Content	Woman managers	Board members' term of office
Total energy consumption	Flexible working schemes	Shareholders' rights policy
Renewable energy use ratio	Injuries	Equal voting right policy
Renewable energy production	Accidents	Involvement of shareholders
Renewable energy use	Occupational diseases	Board structure
Green buildings	Fatalities among employees	CSR Sustainability Committee
Total water consumption	HIV/AIDS program	Global Compact signatory
Emission policy	Training hours	Sustainability reporting / CSR
Biodiversity impact reduction	Training costs	GRI Report Guidelines
Total CO2 emissions	Human rights policy	External audit
NOx and SOx emissions	Child labour policy	ESG reporting scope
VOC or particulates emissions	Anti-corruption policy	
Total waste	Business ethics policy	

Total hazardous waste	OECD guidelines for	
Total recycling waste	multinational enterprises	
Environmental	Employee engaged in	
protection	voluntary.	
Expenditures	Work	
Total gross R&D	Corporate responsibility	
expenditures	Crisis management	
	systems	
	Fair trade policy	

Source: Sikacz & Wołczek (2018).

At this point, it is important to note that Thomson Reuters is one of the notable agencies evaluating the performance of environmental, social and governance (ESG) and turning the results into the ESG ratings. The ESG ratings are designed to assist investors and other interested parties in the economic system to know how the companies are doing in terms of sustainability (Dahlberg & Wiklund, 2018). The current increase in the use of ESG ratings in investment decision-making is occasioned by the fact that investors perceive a strong correlation between corporate sustainability performance and financial performance (Unruh *et al.*, 2016). According to Schaltegger & Burritt (2010) and Dahlberg and Wiklund (2018), the main reasons for the significant consideration and inclusion of ESG ratings in investment and business decisions include:

- Integration gain: meaning that many investors believe that when incorporating companies with high ESG performance, they will increase their long-term returns and lower their risk.
- Personal values: Many investors use ESG data as a tool to exclude companies that conduct operations which are against their own values.
- Responsible Investment: Investors want their investments to have a positive impact, meaning that they choose to invest in companies where they can see direct positive results of their investments. ESG investing (Responsible investing) should be pursued even by investors who only care about financial returns, since there are so many studies which show that ignoring ESG factors is to ignore risk and opportunities that can either harm or increase their clients' financial returns.
- Legislative and stakeholder pressure: stakeholder pressure and the introduction of mandatory information and reporting requirements through governmental legislation is another possibility factor driving the consideration of ESG issues in today's investment. It is necessary for the continuation of corporate activities to enforce information requirements on sustainability, institutional compliance and stakeholder communication and dialogues (Cooper & Owen, 2007; Unerman, 2007; Murillo-Luna, Garce's-Ayerbe, & Rivera-Torres, 2008).
- Reduction of information asymmetries: The objective of corporate disclosure is to reduce information asymmetries between the reporting organisation and shareholders or potential investors of the firm's shares. In an ever changing and competitive business world empowered by advancement in information communication technology, firms are faced with the necessity to be accountable

for not just financial performance but also other performance aspects. Hence, to improve competitive advantage and increase access to finance, corporate organisations strive to embark on communicating distinguishing feats. These could take the form of a sustainability report, which includes environmental, social and governance disclosure.

- Managing the business case for sustainability: one reason to introduce sustainability reporting is to identify and realise the economic (e.g., cost reduction or sales revenue increase) potential of environmental, social and governance activities. Management of corporations will be motivated by this reason if it has a proven link that the company may have a business gain for pursuing sustainability. Furthermore, firms with strong ESG performance have a deep insight into the long-term strategic issues in their industries and could lead the industry by making necessary long-term decisions to ensure the success of the business over longer time periods to remain sustainable.

Governance Dimension of Corporate Sustainability

According to Jaimes-Valdez & Jacobo-Hernandez (2016), the development of the corporate governance concept can be categorised into three eras. The first era is known as managerial capitalism. This era lasted from the year 1932 to 1976 and suggests the separation of professional management from the property owners (shareholders) in accordance with agency theory. Jaimes-Valdez & Jacobo-Hernandez (2016) noted that this model was criticised when shareholders realised that managers only improved their own financial well-being at the cost of the shareholders, which highlighted the need for improved mechanisms to address the conflicts of governance. The second era started in 1976, with Jensen & Meckling leading the era known as capitalist shareholder value. The capitalist shareholder value seeks to align the interests of senior management with those of shareholders through stock-based compensation. Finally, in 1984, Freeman considered the place of customers and suppliers, leading to the emergence of the stakeholders' era that considers the organisation not only an entity of profit but also an instrument that serves another purpose (Mostovicz, Kakabadse, & Kakabadse, 2011). In this era, shareholders own shares of the business, whereas stakeholders do not. It is believed that in the future, if not now, these two parties will merge, creating a virtuous circle of new capitalism (Bonnafeous-Boucher, 2005). A stakeholder is defined as "*any group or individual who can affect or be affected by the achievement of the objectives of the organisation*" (Freeman, 1984, cited by Spitzbeck, 2009).

Optimally, corporate governance protects the rights of stakeholders (Cuneyt-Arsilantas & Afacan-Findikli, 2013). In addition, this system has been described as "a framework for coordinating relations between shareholders, the board of directors, managers and other stakeholders" (Guo, Smallman, & Radford, 2013). Good corporate governance, according to Honoré, Munarib & Pottelsberghe (2015), provides proper incentives for the board and management to pursue objectives that are in the interests of the company and its shareholders and facilitate effective monitoring. Sustainable governance, in particular, is a practice commonly used to anticipate and manage potential risks to legitimacy and corporate reputation (Li, Zhao, Shi, & Li, 2014).

Scholars over the years have viewed corporate governance from different perspectives. Though corporate governance is not easy to define as a result of the changes and perpetually expanding boundaries of the subject (Roche, 2005). The definitions vary according to the context, cultural situations and perspectives of researchers (Armstrong & Sweeney, 2002). However, corporate governance involves maintaining good relationships between management, boards, shareholders and other stakeholders such as employees and the community to ensure corporate sustainability (Ibe *et al.*, 2017; Chowdary, 2002; Bain & Band, 1996). According to Wilson (2006), “corporate governance is a nebulous concept, but it is safe to say that it is all about the manner in which corporations are directed, controlled and held to account”. The study further noted that corporate governance is concerned with the effective leadership of corporations to ensure that they deliver on their promise as the wealth-creating organ of society, and that they do so in a sustainable manner. Corporate governance has attracted a great deal of public and research attention because of its importance to the economic sustainability of companies and its effect on society in general (Rezaee, 2009). As it has significant implications for the growth prospects of an economy, numerous corporate failures around the world have alerted regulators to the importance of sound corporate governance for the sustainable operations of corporate entities (Ibe *et al.*, 2017). This is because the application of proper corporate governance practices decreases the risk for investors, attracts investment capital and improves corporate performance (Rezaee, 2009).

Enterprise Value Creation

Enterprise value is sometimes confused with equity value. Equity value is the enterprise value remaining for shareholders after creditors have been paid, while enterprise value is the sum of equity value and net debt value. According to the Corporate Finance Institute (CFI), Enterprise Value (EV) is the measure of a firm’s total value. The measure looks at the entire market value rather than just the equity value, so all ownership interests and asset claims from both debt and equity are included. Enterprise Value can be thought of as the effective cost of buying a company or the theoretical price of a target company (before a takeover premium is considered) (CFI, 2018). The simple formula for enterprise value is:

$$EV = \text{Market Capitalisation} + \text{Market Value of Debt} - \text{Cash and Equivalents}$$

The extended formula is:

$$EV = \text{Common Shares} + \text{Preferred Shares} + \text{Market Value of Debt} + \text{Minority Interest} - \text{Cash and Equivalents}$$

The value of the company can be derived from the assets it owns. However, obtaining the market value of each and every asset can be quite tedious and difficult. However, a simple accounting equation can serve as a guide by looking at assets as the application of funds and both liabilities and shareholders’ equity as the sources of funds used to finance those assets. Enterprise value or firm value means the current or market value of the company, so it’s the market value of liabilities and the market value of equity considered together. EduPristine (2018) graphically represented the enterprise value as:

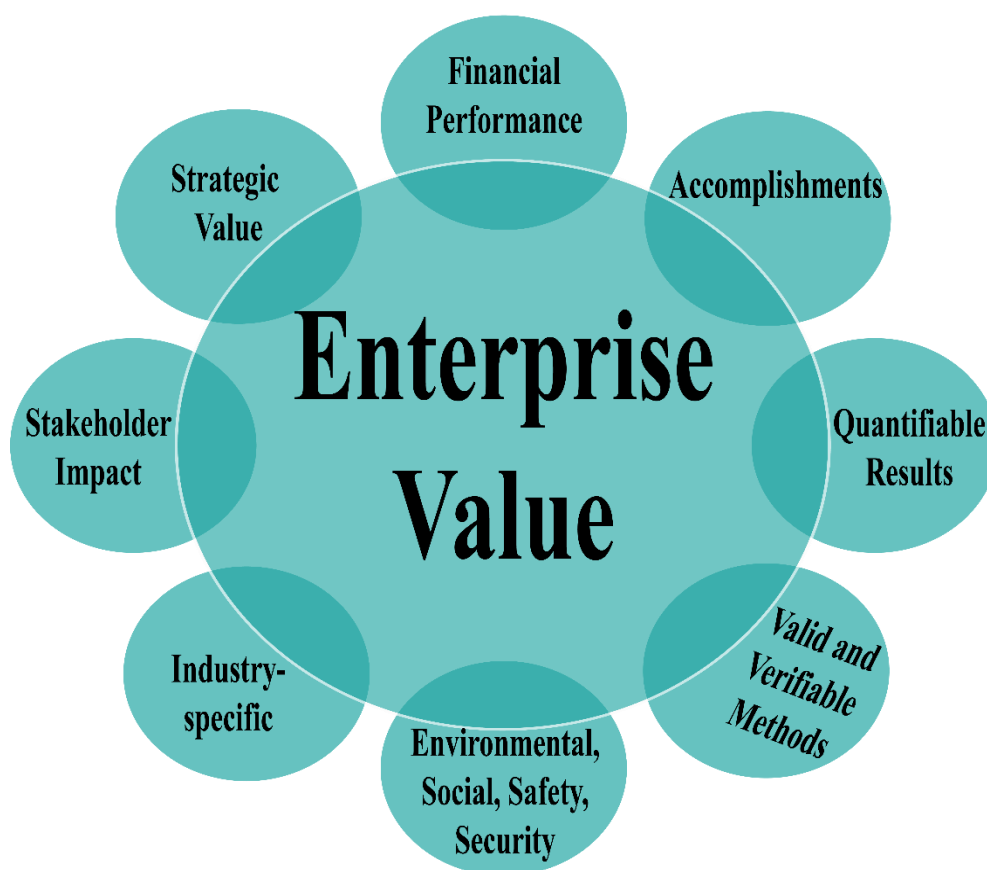


Figure 1. Enterprise Value

Source: EduPristine (2018)

Components of Enterprise Value

Equity Value

Equity value is found by taking the company's fully-diluted shares outstanding and multiplying them by the current market price per share. Fully-diluted shares include in-the-money options, warrants, and convertible securities, aside from just the basic shares outstanding. If a company plans to acquire another company, it will need to pay that company's shareholders by paying at least the market capitalisation value. This alone is not considered an accurate measure of a company's true value, and for that reason, other items are added to it as seen in the EV equation.

Total Debt

This is the contribution of banks and other creditors. They are interest-bearing liabilities and are comprised of short-term and long-term debt. The amount of debt gets adjusted by subtracting cash from it because, in theory, when a company has been acquired, the acquirer can use the target company's cash to pay a portion of the assumed debt. If the market value of debt is unknown, the book value of debt can be used instead.

Preferred Stock

Preferred stocks are hybrid securities that have features of both equity and debt. They are treated more as debt, because the holder receives a fixed value of

dividends and has a higher priority in asset and earning claims than common stock. In an acquisition, they normally must be repaid just like debt.

Non-Controlling (Minority) Interest

Non-controlling interest is the portion of a subsidiary not owned by the parent company (which owns a greater than 50% but less than 100% position in the subsidiary). The financial statements of this subsidiary are consolidated in the financial results of the parent company.

We add this minority interest to the calculation of EV because the parent company has consolidated financial statements with that minority interest, meaning the parent includes 100% of the revenues, expenses, and cash flow in its numbers even though it doesn't own 100% of the business. By including the minority interest, the total value of the subsidiary is reflected in EV.

Cash and Cash Equivalents

Cash and cash equivalents are the most liquid assets of a company. Examples of cash equivalents are short-term investments, marketable securities, commercial paper, and money market funds. The cash and cash equivalents are subtracted from the enterprise value because they will reduce the acquisition costs of the target company.

Importance of Enterprise Value

- It tells us about the worth of the company. In other words, it is a theoretical takeover price.
- It represents the economic value of a company.
- It is a theoretical takeover price if a company is to be bought, as it accounts for the debt as well as the cash that the acquirer would pocket in the transaction.
- It helps in comparing companies of different capital structures.
- Returns from different businesses can be compared to those of businesses interested in buying controlling stakes.
- For the stock market investors, it is used to neutralise the risks and accordingly compare the returns expected.

Stakeholder Theory

The stakeholder theory is opposed to the shareholder theory. The shareholder theory ideology that a corporation's primary objective should be to maximise the wealth of its shareholders gave birth to the stakeholder theory (Wijnberg, 2000; Mitchell, Agle, & Wood, 1997). In contrast to the shareholder theory, the Stakeholder theory holds that the primary responsibility of corporations is not to maximise shareholders' wealth, but to act in the interest of all stakeholders that compose the business environment, without preferencing one stakeholder over another in potential trade-offs (Mansell, 2013; Freeman, Harrison, Wicks, Parmar & Colle, 2010).

The stakeholder theory was introduced by Edward Freeman in his book, "*Strategic Management: A Stakeholder Approach*," in 1984. The theory has gained significant importance and popularity in the management field, both in research, which resulted in many publications, and also in basic concepts of management.

According to Donaldson and Preston (1995), the idea of “stakeholder” has become “a standard element of Introduction to Management lectures”. As Wood and Jones (1995) asserted, stakeholder theory investigates and explains the configurations of relationships between corporations and society.

The stakeholder theory was introduced based on developments in the business and economic context of the 1980s and changes in management practices. Especially with the rise of principal-agent models, along with the separation of control and ownership, the “production view of the firm”, which was previously common and popular to model organisations, was replaced with the “managerial view of the firm” (Freeman, 1984). The earlier model, the production view, was no longer capable of rendering a valid analysis of the firm, because current firms need to deal with a greater number of interested parties. Therefore, there was a need for a new framework to explain the success factors for doing business in the new, more complex environment. The environment of business has undergone considerable change and increased turbulence. Freeman, Harisson, Wicks, Parmar, and Colle (2010) named the three main problems which the stakeholder framework addressed:

- i. *“Understanding and managing a business in the world of the twenty-first century (the problem of value creation and trade);*
- ii. *Putting together thinking about questions of ethics, responsibility, and sustainability with the usual economic view of capitalism (the problem of the ethics of capitalism);*
- iii. *Understanding what to teach managers and students about what it takes to be successful in the current business world (the problem of managerial mindset).”*

In order to be successful, the managers of organisations need to have effective models which take into account these changing factors, thereby suggesting guidance and strategic solutions through the unstable and dynamic environment. Freeman (1984) divides the changes into two groups: internal changes and external changes. Internal change is a change which “requires action, but it does not directly challenge our conceptual map of the world” (p.8). Internal changes can be changes in owners, customers, suppliers, and employees of the corporation. This change is at a level which can be handled with small adjustments by the organisation and does not require a major strategic shift. The organisation is already familiar with these factors and can handle and resolve most problems related to these factors (Freeman, 1984).

External change is “the emergence of new groups, events, and issues which cannot be readily understood within the framework of an existing model of theory” (p.11). Therefore, to be able to understand and analyse external changes, managers need to have new models or frameworks which enable them to deal with a high level of uncertainty due to these changes (Freeman, 1984). The external changes can be the appearance of, or major change in, governments, consumer advocates, competitors, special interest groups, environmentalists, and media (Freeman, 1984).

Stakeholder theory indicates that groups of stakeholders can develop and approve the company’s strategic decisions concerning business policies. According to Freeman (2008), the primary objective of corporate managers should be to maximise wealth for all stakeholders; that is, to ultimately maximise the wealth of shareholders. Based on this argument, it is safe to say that the two theories

(shareholder and stakeholder theories) are compatible rather than in conflict with each other (Freeman *et al.*, 2010). Furthermore, stakeholder behaviour can constrain the company's strategy, which is developed by managers to match appropriate resources with its surroundings.

Basically, the stakeholder theory aims at integrating social responsibility into corporations' businesses, without compromising the interests of the shareholders or the fundamentals of the capitalistic market economy (Mansell, 2013). The Stakeholder theory is an idea of good management, and companies that are well managed will generate profit maximisation (Freeman, 2008). According to Freeman (1984), a stakeholder of a firm is "any group or individual who can influence or is affected by the achievement of an organisation's purpose". To successfully integrate and serve the interests of all stakeholders, the management of the business organisations needs to identify all stakeholders as the first approach (Freeman, 1984). To capture the strategic management approach via the stakeholder theory, Freeman (1984) explains that the firm not only affects the stakeholders, but the stakeholders can also affect the organisation's success to a great extent. Based on this, there is a belief that to be as successful as possible, the firm needs a strategic management plan which involves taking the needs and interests of the stakeholders into consideration (Dahlberg & Wiklund, 2018).

The role of a successful organisation is to make the interests of diverse stakeholders go in the same direction. If something is good for one stakeholder, it needs to be, at least to some extent, beneficial to others as well (Freeman, 1984).

Empirical Review

In Nigeria, Uwuigbe *et al.* (2018) examined sustainability reporting and firm performance in Nigeria, using a bi-directional Approach. The objectives of the study were to check if firms with improved sustainability reporting have better firm performance and, secondly, to determine if firms with better performance have improved sustainability reporting. The study covered deposit money banks listed on the floor of the Nigerian Stock Exchange for the period 2014 - 2016. The study used a judgmental sampling technique in the selection of 10 deposit banks out of 16 banks. The study noted that the sampled banks represented about 62.50% of the population and also accounted for more than 50% market share in the industry. Data were extracted from the annual report and stand-alone sustainability reports of the selected banks using a content analysis and coding approach. The panel regression technique was used to analyse the data extracted. The results showed that there is a bi-directional relationship between sustainability reporting and the firm performance of quoted Deposit Money Banks (DMBs) in Nigeria. This finding is in-line with the proposition of the legitimacy theory. Specifically, the study indicated that the market price per share of the sampled banks had a significant negative influence on sustainability reporting. In addition, the study also revealed that sustainability reporting had a significant positive influence on the revenue generation of the sampled banks. The study suggested that Nigerian deposit money banks should improve their sustainability reporting index to drive their performance positively. Further, the study suggested that future research in the area of the subject matter should consider other sectors and conduct a comparative analysis across the sectors.

Sadiq, Azizat, Fatima and Ibrahim (2017) examine the relationship between corporate social responsibility and firm performance in Nigeria. The study employed a panel data series to examine the relationship between CSR and performance measured by the size of manufacturing companies. The study sourced data from the annual reports released by the Nigerian Stock Exchange for 14 companies for ten consecutive years, which is between the years of 2005 and 2014. The panel data analysis method was adopted for the study because this research involves more than one company to also estimate the unknown parameters in order to minimise the differences between the observed responses. The results revealed that there is no significant relationship between corporate social responsibility and firms' performance measured by firms' size. The study also revealed that there is a negative relationship between corporate social responsibility and a firm's efficiency. The study recommended, among other things, that manufacturing companies should also improve their CSR activities to ensure the firm's development. Moreover, manufacturing companies should note that the more they are socially responsible, the stronger the good image or corporate lineage of the company will be.

Nwobu (2017) investigated the determinants of corporate sustainability reporting in selected companies in Nigeria. The objectives include the following: to examine the variation in sustainability reporting across selected companies from 2010-2014, assess the factors that influence sustainability reporting in Nigeria from the perspective of corporate respondent, access extent to which companies' institutional field factors influence their sustainability reporting in Nigeria and investigate the extent to which internal organizational processes of companies influence their sustainability reporting in Nigeria. A sample size of 54 listed companies was selected from four sectors of the Nigerian stock exchange. The scope of the study covered the period from 2010 to 2014. Panel data regression techniques were used. Data were sourced from the companies' annual reports and questionnaires administered to the companies. The results revealed that there is a statistically significant variation in sustainability reporting from 2010 to 2014 in the sampled companies. Secondly, the results further showed that the companies were influenced by the disclosure guidelines of the Securities and Exchange Commission (SEC) code of corporate governance, and central bank of Nigeria's sustainability reporting principles. The study recommended that companies should be encouraged to prepare interim sustainability reports as soon as due, and the chief executive officer who is responsible for making decisions should support sustainability reporting from within the business organisation.

Before the above, Nwobu (2015) examined the relationship between corporate sustainability reporting and profitability and Shareholders Fund in Nigerian Banks. The study analysed the annual reports of eight (8) banks in Nigeria for the presence or absence of sustainability reporting and how the sustainability disclosure relates to profitability and shareholders' funds. The study employed content analysis methodology to calculate the sustainability index based on the researcher's benchmark. Data on the independent variables, namely Profit After Tax (PAT) and Shareholders Fund (SHF), were also extracted from the annual reports of the banks. The study revealed that sustainability reporting has received substantial attention over the past four (4) years in the Nigerian banking sector. Secondly, the study

found a positive correlation between the sustainability reporting index and Profit After Tax (PAT) and shareholders' funds. The study suggested that future studies should expand the sample size and used marketbased performance measures instead of accounting-based measure which the study employed.

Research Design

This study adopted the content analysis research design.

H_{01} Corporate governance mechanisms (CGMs) have no significant impact on firms' enterprise value (EV) in Nigeria.

$$EV_{it} = \beta_0 + \beta_1 MGT_{it} + \beta_2 SHA_{it} + \beta_3 CSRS_{it} + \beta_4 FS_{it} + \mu_{it} \dots\dots\dots (ix)$$

Where:

EV	=	Firms' Enterprise Value
MGT	=	Management
SHA	=	Shareholders
CSRS	=	CSR Strategy
FS	=	Firm Size (Log of total assets)
$\beta_0 - \beta_5$	=	Parameter Estimates
μ	=	Stochastic factor/error term

Results

Below is the estimate of the pooled regression, fixed and random effects for test of hypothesis five. The Hausman test used is also presented in this section for hypothesis five. The null hypothesis five is stated thus:

H_{01} Corporate governance mechanisms (CGMs) have no significant impact on firms' enterprise value (EV) in Nigeria.

H_{A1} Corporate governance mechanisms (CGMs) have a significant impact on firms' enterprise value (EV) in Nigeria.

Decision Criteria:

Reject the null hypothesis if P-Value (sig) is < 0.05 and accept the alternative.

Accept the null hypothesis if P-Value (sig) is > 0.05 and reject the null hypothesis.

Table 3. Estimates for Hypothesis One

Variables	Fixed Effect++	Random Effect	Pooled Model
MGT	2.254379 (7.533921) **	2.485388 (9.351972) **	2.021084 (7.43966) **
SHA	0.159463 (1.557035)	0.121988 (1.239456)	0.246417 (1.576706)
CSRS	-0.087149 (-0.800186)	-0.028861 (-0.270178)	-0.106897 (-0.524739)
LOG(FS)	0.558625 (17.00996) **	0.769247 (35.94442) **	0.870257 (47.05564) **

C	6.741425 (12.57938) **	3.146054 (9.454796) **	1.518048 (5.604955) **
R-Squared	0.994946	0.878298	0.968115
Adjusted R-squared	0.993622	0.877125	0.967807
F-Statistic	751.3051**	748.7441**	3150.101**

Source: Researcher's Computations (2021) using EViews 10 (Appendix P, Q & R)

***, ** and * represent 1%, 5%, and 10% significance levels respectively.

Figures in brackets are t-statistic values.

++ = lead equation.

Dependent variable: Enterprise value (EV)

This study is based on the estimates of the Fixed Effects and Random Effects Models, as the pooled regression does not consider the individuality in the panel data structure. The most appropriate model between the fixed and random effects is determined by the Hausman Test.

Hausman test

To decide the most suitable model for the testing of hypothesis five, the Hausman test was conducted, and the result is presented below.

Table 4. Hausman test result for Hypothesis one

Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random		74.371725	4	0.0000
Cross-section random effects test comparisons:				
Variable	Fixed	Random	Var(Diff.)	Prob.
MGT	2.254379	2.485388	0.01891	0.0930
SHA	0.159463	0.121988	0.000802	0.1858
CSRS	-0.087149	-0.028861	0.00045	0.0060
LOG(FS)	0.558625	0.769247	0.000621	0.0000

Source: Researcher's Computations (2021) using EViews 10 (see appendix S)

Here, the chi-square statistic of the Hausman test was 74.371725 with a probability value of 0.0000. This indicates that the fixed effects model is preferred, since the probability value is less than 0.05. Meaning that the study rejects the null hypothesis of the Hausman test, which states that the random effects model is preferred. And accept the alternative that the fixed effects model is preferred. Therefore, the estimate of hypothesis five (Corporate governance mechanisms have no significant impact on firms' enterprise value (EV) in Nigeria) was based on the fixed effects model, which has been accepted as the best estimator according to the output of the Hausman test.

Based on the fixed effects econometrics estimate presented in Table 4.10 above, the value of R-squared (R^2) was 0.994956. Meaning that about 99.49% of the total variations observed in the dependent variable (enterprise value) were explained by

the independent variables (corporate governance score and Firm Size). This implies that corporate governance and the firm size explained about 99.49% of the total variations observed in the enterprise value of companies in Nigeria. However, there was a need to adjust the R-squared based on the inflation caused by having multiple independent variables in the model. The adjusted R-squared of the fixed effects model was 0.993622. This implies that the unbiased explained proportion of the total variations observed in the dependent variable by the independent variables was about 99.36%. This means that corporate governance and firm size explained about 99.36% of the total variations observed in the enterprise value of the companies listed on the Nigerian Stock Exchange Market. Simply put, the corporate governance score had about 99.36% impact on firms' enterprise value in Nigeria. The value of the F-statistic and its probability value were considered to evaluate the extent of corporate governance impact on the enterprise value of companies in Nigeria.

The value of the F-statistic of the fixed effect model for hypothesis five, as presented in Table 4.11, was 751.3051, and its probability was 0.000000. This implies that the overall goodness of fit of the fixed effect model is acceptable. It equally suggests that the corporate governance mechanisms (CGMs) had a significant impact on the enterprise value, since the value of F-statistics probability value is less than 0.05. The study concludes that corporate governance mechanisms (CGMs) have a significant impact on firms' enterprise value in Nigeria. The coefficient of the control variable, log of total assets (Log (FS)), which was 0.558625 and its t-statistic value of 17.00996 suggest a positive and significant influence on the enterprise value of companies in Nigeria. Therefore, the study rejects the null hypothesis that corporate governance mechanisms (CGMs) do not have any significant impact on firms' enterprise value (EV) in Nigeria, but accepts the alternative that corporate governance mechanisms (CGMs) have a significant impact on firms' enterprise value (EV) in Nigeria.

The coefficient of the individual variables of the fixed effect estimates in Table 4.10 showed that the coefficient of management (MGT) was 2.064148. This indicates a positive relationship between management (MGT) and enterprise value in Nigeria. Meaning that an increase in the management score will lead to about a 2.254379 proportional increase in the enterprise value of companies in Nigeria. The t-test value of 7.533921 with probability value of 0.0000 (see Appendix Q) indicates that the positive relationship between management (MGT) and enterprise value was statistically significant at 5%, since the probability value was less than 0.05. This study concludes that there was a positive and significant relationship between management (MGT) and the enterprise value of companies in Nigeria.

Secondly, the coefficient of shareholders (SHA) was 0.159463. This suggests that there was a positive relationship between shareholders (SHA) and the enterprise value of companies in Nigeria. This implies that an increase in shareholders (SHA) will lead to about 0.159463 increase in the enterprise value of companies in Nigeria. The t-statistic value of 1.557035 and its probability value of 0.1204 (see Appendix Q) imply that the positive relationship between shareholders (SHA) and the enterprise value of companies was statistically insignificant at 5%, since the probability value was greater than 0.05. Therefore, the study concludes that there was a positive and

insignificant relationship between shareholders (SHA) and the enterprise value of companies in Nigeria.

Finally, on the hypothesis of five parameters, the fixed effect estimate indicated that the coefficient of corporate social responsibility strategy (CSRS) was -0.087149. This indicates a negative relationship between corporate social responsibility strategy (CSRS) and enterprise value in Nigeria. Meaning that an increase in the corporate social responsibility strategy (CSRS) score will lead to about a 0.087149 proportional decrease in the enterprise value of companies in Nigeria. The t-test value of -0.800186 with a probability value of 0.4242 (see Appendix Q) indicates that the negative relationship between corporate social responsibility strategy (CSRS) and enterprise value was not statistically significant at 5%, since the probability value was greater than 0.05. This study concludes that there was a negative and insignificant relationship between corporate social responsibility strategy (CSRS) and the enterprise value of companies in Nigeria.

Conclusion

This study examined the impact of corporate sustainability on enterprise value in the Nigerian stock market. This study covered five (5) years content analysis of annual reports and stand-alone sustainability reports of eighty-four (84) companies listed on the Nigerian Stock Exchange Market. It's important to note that the only known significant effort towards corporate sustainability reporting in Nigeria is the Nigerian Stock Exchange (NSE) sustainability disclosure guidelines issued in 2016.

The study used content analysis to extract data for the study. Descriptive statistics, and inferential statistics - One-way ANOVA and panel regression analysis were used to estimate some of the models and test hypotheses of the study. The Hausman test was also conducted to determine the most appropriate model between fixed effect and random effect. The data analysis was performed using Econometrics View (EViews) version 10 and Statistical Package for Social Sciences (SPSS) version 25, while the data visualisations were done with Microsoft Excel. Conclusively, this study revealed that corporate sustainability factors have a significant influence on the enterprise value of companies listed on the Nigerian Stock Exchange Market.

Recommendation

Following the significant influence of corporate governance mechanisms on enterprise value, this study recommends that a strong governance code, as obtainable in the financial sector, be implemented in other sectors of the Nigerian Stock Exchange Market.

References

- Abbott, W.F. & Monsen, R.J. (1979). On the Measurement of Corporate Social Responsibility: Self-reported Disclosures as a Method of Measuring Corporate Social Involvement. *Academy of Management Journal*, 22(3), 501-515.
- Abd-Halim, Sarah. (2014). *ESG in Focus: UK, France, Germany, China and Malaysia Evidence*. A dissertation submitted in partial fulfilment of the requirements of the Royal

- Docks Business School, University of East London, for the degree of MSc Finance and Risk.
- Abdi, Y., Li, X. & Càmara-Turull, X. (2021). Exploring the Impact of Sustainability (ESG) Disclosure on Firm Value and Financial Performance (FP) in the Airline Industry: The Moderating Role of Size and Age. *Environment, Development and Sustainability*, Abdullah, S.A. (2004). Board Composition, CEO Duality and Performance among Malaysian Listed Companies. *Corporate Governance*, 4(4), 47-61.
- Baetlett, D. B. (2012). The Effect of Sustainability Reporting on Firm Valuation. CMC Senior THESIS. Paper 489. http://scholarship.claremont.edu/cmc_theses/489.
- Bain, N., & Band, D. (1996). *Winning Ways through Corporate Governance*, Macmillan Press Ltd, London.
- Bakan, J. (2004). *The Corporation: The Pathological Pursuit of Profit and Power*. London: Constable & Robinson.
- Ball, A. & Craig, R. (2010). Using Neo-Institutionalism to Advance Social and Environmental Accounting. *Critical Perspectives on Accounting*, 21(4), 283-293.
- Cadbury, A. (2000), *Global Corporate Governance Forum (GCGF)*, World Bank. www.csmworld.org/publicest-gov
- Carson, R. (1962). *Silent Spring*. New York: First Mariner.
- Carter, C. & D. Rogers (2008). A framework of sustainable supply chain management: moving toward a new theory. *International Journal of Physical Distribution and Logistics Management*, 38(5), 360-387.
- Chen, L. (2015). *Sustainability and Company Performance: Evidence from the Manufacturing Industry*. PhD Dissertation in the Division of Production Economics, Department of Management and Engineering at Linköping University.
- Chen, L., Yuan, T., Cebula, R.J., Shuangjin, W. & Foley, M. (2021). Fulfilment of ESG Responsibilities and Firm Performance: A Zero-Sum Game or Mutually Beneficial? *Sustainability*, 13, 10954.
- Daily, C. M., Dalton, D. R., & Canella, A. A. (2003). Corporate Governance: Decades of Dialogue and Data. *Academy of Management Review*, 28(3), 371-382.
- Dalbol, J.P. & Dalbol, M.L. (2011). *Sustainability and Value Creation: Changing the perception of environmental responsibility and economic benefits*. A Master's thesis for the award of Master of Science in Strategy, Organisation & Leadership at Copenhagen Business School.
- David, F., George, S.B. & David, H. (2007). Corporate Boards and Company Performance: Review of Research in Light of Recent Reforms. *Journal Compilation*, 15, 5.
- Deegan, C. (2009). *Financial Accounting Theory*. New South Wales: McGraw-Hill.
- Demsetz, H., & Lehn, K. (1985). The Structure of Corporate Ownership: Causes and Consequences. *Journal of Political Economy*, 93(6), 1155-1177.
- Dibia, N. O., & Onwuchekwa, J. C. (2015). Determinants of environmental disclosures in Nigeria: A case study of oil and gas companies. *International Journal of Finance and Accounting*, 4(3), 145-152. <http://doi.org/10.5923/j.ijfa.20150403.01>
- Donaldson, T., & Preston, L. E. (1995). The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications. *Academy of Management Review*, 20(1), 65-91.
- Esu, Etim (2011). *Corporate Social Responsibility and Performance in Nigerian Deposit Money Banks*. A thesis submitted to the Postgraduate School, Ahmadu Bello University, Zaria, in partial fulfilment of the requirements for the award of a Master of Science degree in accounting and finance.

- Fama, E. F., & Jensen, M. C. (1983a). Separation of Ownership and Control. *Journal of Law and Economics*, 26, 301-325.
- Fama, E. F., & Jensen, M. C. (1983b). Agency Problems and Residual Claims. *Journal of Law and Economics*, 26, 327-349.
- Fatemi, A., Glaum, M., & Kaiser, S. (2018). ESG Performance and Firm Value: The Moderating Role of Disclosure. *Global Finance Journal*, 38, 45-64.
- Fontrodona, J. & Sison, A. (2006). The Nature of the Firm, Agency Theory and Shareholder Theory: A Critique from Philosophical Anthropology. *Journal of Business Ethics*, 66(1), 33-42. doi: <https://doi.org/10.1007/s10551-006-9052-2>
- Freeman, R. (2008). Ending the so-called 'Friedman-Freeman' Debate, in Agle, B., Donaldson, T., Freeman, R., Jensen, M., Mitchell, R., and Wood, D. Dialogue: Toward superior stakeholder theory. *Business Ethics Quarterly* 18(2), 153-190. Available via: <http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=2&sid=95942e4f-94a2-4fb3-bc24-ff2199519eb1%40sessionmgr4010> [Retrieved March 14, 2020].
- Freeman, R. E., Harrison, J. F., Wicks, A. C., Parmar, B. L., & Colle, S. (2010). *Stakeholder Theory: The State of the Art*. Cambridge: Cambridge University Press. doi: 10.1017/CBO9780511815768.
- Freeman, R.E. (1984). *Strategic Management: A Stakeholder Approach*. Pitman: Boston, MA, USA.
- Friedman, M. (1962). *Capitalism and Freedom*. University of Chicago Press: Chicago, IL, USA.
- Friedman, M. A. (1970). Friedman doctrine: The Social Responsibility of Business is to Increase its Profits. *New York Times Magazine*, 13, 32-33.
- Galbreath, J. (2013). ESG in Focus: The Australian Evidence. *Journal of Business Ethics*, 118, 529-541.
- Garcia, A. S., Mendes-Da-Silva, W. & Orsato, R. (2017). Sensitive Industries Produce Better ESG Performance: Evidence from Emerging Markets. *Journal of Clean*, 150, 135-47.
- Hart, S. L., & Milstein, M. B. (2003). Creating sustainable value. *Academy of Management Executive*, 17(2), 56-67.
- Hillman, A.J. & Keim, G.D. (2003). Boards of Directors and Firm Performance: Integrating Agency and Resource Dependence Perspectives. *The Academy of Management Review*, 28(3), 383-396.
- Hillman, A.J., Cannella, A.A. & Harris, I.C. (2002). Women and Racial Minorities in the Boardroom: How do Directors Differ? *Journal of Management*, 28(6), 747-763.
- Jensen, M.C. (2002). Value Maximisation, Stakeholder Theory, and the Corporate Objective Function. *Journal of Applied Corporate Finance*, 14(3), 8-21.
- John, C.H.S., Cannon, A.R., & Poudar, R.W. (2001). Change Drivers in the New Millennium: Implications for Manufacturing Strategy Research. *Journal of Operations Management*, 19(2), 143-160.
- Kabir T.H. (2009). *The Impact of the Composition of the Audit Committee on Organisation and Physical Controls of Banks in Nigeria*.
- Kaveen, B., Rebecca, T. & Mark, W. (2013). Firm Value and the Quality of Sustainability Reporting in Australia. *Australia Accounting Review*, 23(1), 67-87.
- Khan, M., Halabi, A. & Samy, M. (2015). CSR Reporting Practice: A Study of Selected Banking Companies in Bangladesh. *Social Responsibility Journal*, 5(3), 344-57.
- Mallin, C.A. (2004). *Corporate Governance*. Oxford University Press.

- Mansell, S. F. (2013). *Capitalism, Corporations and the Social Contract*. Cambridge: Cambridge University Press. doi: 10.1017/CBO9781139058926.
- Mathews, M.R (1997). Twenty-Five Years of Social and Environmental Accounting Research: Is There a Silver Jubilee to Celebrate? *Accounting, Auditing, and Accountability Journal*, 10(4), 481-531.
- Nwobu, O. (2015). The Relationship between Corporate Sustainability Reporting and Profitability and Shareholders Fund in Nigerian Banks. *The Journal of Accounting and Management*, 5(3).
- O'Donovan, G. (2002). Environmental Disclosures in the Annual Report: Extending the Applicability and Predictive Power of Legitimacy Theory. *Accounting, Auditing & Accountability Journal*, 15(3), 344-371.
- Ogbechie, C. I. (2012). *Key determinants of Effective Boards of Directors: Evidence from Nigeria*. Brunel Business School. Brunel University, London.
- Organisation of Economic Co-operation and Development (OECD) (2001). *Corporate Governance and National Development*. Technical Papers No. 180, Organisation for Economic Co-operation and Development, Paris.
- Osazuwa, N., Francis, O. & Izedonmi, F. (2013). Corporate Attributes and Environmental Disclosures of Nigerian Quoted Firms: An Empirical Analysis. *Research Journal of Social Science & Management*, 3(6), 150- 158.
- Porter, M.E.& Kramer, M.R. (2011). Creating Shared Value. *Harvard Business Review*, 89, 62–77.
- Post, F. (2003). A Response to "The Social Responsibility of Corporate Management: A Classical Critique". *American Journal of Business*, 18(1), 25-36. doi: <https://doi.org/10.1108/19355181200300002>
- Post, J., Preston, L. & Sachs, S. (2002). *Redefining the Corporation: Stakeholder Management and Organisational Wealth*. Stanford University Press: Stanford, CA, USA.
- Shaikh, I. (2021). Environmental, Social, and Governance (ESG) Practice and Firm Performance: An International Evidence. *Journal of Business Economics and Management*, 23(2), 218–237.
- Shleifer, A., & Vishny, R. W. (1997). A Survey of Corporate Governance. *Journal of Finance*, 52(2), 737–783.
- Sikacz, H. & Wołczek P. (2018). ESG Analysis of Companies Included in the Respect Index Based on Thomson Reuters Eikon Database. *Research Papers of Wrocław University of Economics*. DOI:10.15611/pn.2018.520.10
- Slaper, T. F., & Hall, T. J. (2011). The triple bottom line: what is it and how does it work? *Indiana Business Review*, 86(1), 4-8.
- Song, L., & Zu, L. (2009). Determinants of managerial values on corporate social responsibility: evidence from China. *Journal of Business Ethics*, 88, 105-117.

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