COMPARATIVE ANALYSIS OF ENTERPRISE VALUE ACROSS THE SECTORS IN THE NIGERIAN STOCK MARKET

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Abstract:
This study investigates the relationship between corporate environmental performance 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 overall corporate environmental performance significantly impacts enterprise value in Nigeria. Specifically, the Resource Use Score has a statistically significant positive relationship with enterprise value. However, no statistically significant relationships were found between Emissions Score and Innovation Score and enterprise value.The study suggests that integrating environmental sustainability practices, particularly in resource use, into corporate strategies can enhance enterprise value. The researchers' recommended that companies in Nigeria should prioritize environmental sustainability to boost long-term business performance.

Key words: *ESG, Environmental Score, Corporate Environmental Performance, Resource Use Score, Emissions Score.*

BACKGROUND TO THE STUDY

The conditions and strategies with which companies are actually run are changing, owing to global business trends and significant changes in the Earth's ecosystem (Dalbol & Dalbol, 2011). These call for company's attention to innovative ways of running businesses, which gear company towards faster, newer, smarter and cheaper ways of doing business in highly competitive environment. Normally, competition in the corporate world is accompanied with increasing industrialization, material consumption, and waste generation. Hence, in a bid to provide innovative products and economic benefits, industrialization also generates substantial pollution burdens and increasing consumption of the Earth's resources at very alarming rate (Gnanaweera & Kunori, 2018; Sukitsch, Engert & Baumgartner, 2015; Hart & Milstein 2003). While the developed countries have gained significantly from industrialization and the world is facing devastating facts as a result, the developing countries are also following the footsteps of the developed countries (Dalbol & Dalbol, 2011). For instance, as organizations seek to increase productivity and achieve competitive advantages over their competitors, the activities of the businesses become complex and industrious, which in turn affect the environment and the society.

According to Utile (2016) industrialization is linked with social and environmental threats ranging from environmental degradation, air and water pollution which has dramatically increased deforestation and loss of habitats for aquatic and terrestrial animals. Subsequently, business activities tend to have significant levels of impact on the environment and the society through constant interactions with the physical environment and the society wherein the business operates (Uwuigbe *et al,* 2018). Undoubtedly, the scarcity of resources combined with the ever-increasing population of the world are two major factors driving industrialization which has threatened the modern world. Dufwa and Hammarström (2015) noted that substantial part of the world's environmental and social problems

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is caused by the corporate domain due to its short-term view on profitability and industrialization. Consequently, companies have been identified as central to most environmental and social problems and must also be central to the solution (Asuquo, Dada & Onyeogaziri, 2018). Though most companies in the developing economies seem relaxed, watching the natural system of the planet disintegrating, people starving and social structures falling apart (Welford, 1997), they forgot that human activities today have an unfavourable impact on the society, ecology and economy which is affecting us now and will affect the future generations greatly if proper strategic measures are not taken (Asuquo *et al* 2018). The concept of corporate sustainability has occupied significant position in business literatures 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).

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 = Market Capitalization + Market Value of Debt – Cash and Equivalents

The extended formula is:

EV = Common Shares + Preferred Shares + Market Value of Debt + Minority Interest – 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, simple accounting equation can serve as a guide by looking at assets as the application of funds and both liabilities and shareholder's 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:

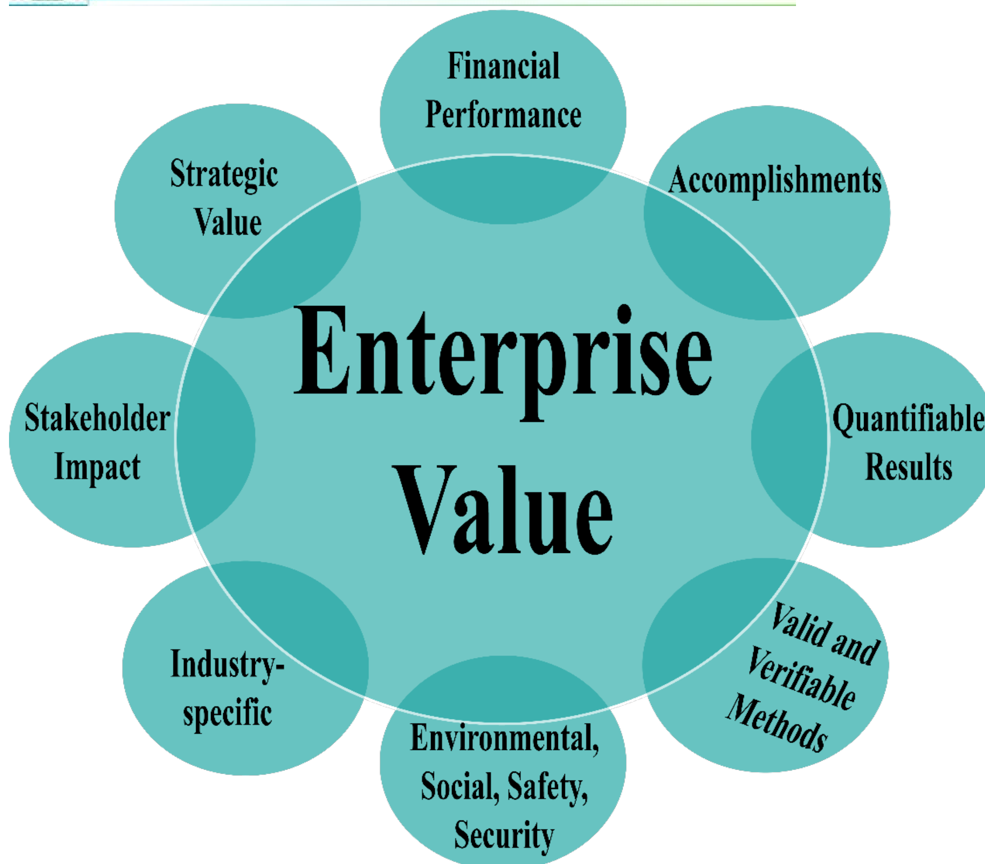

Figure 2.2 Enterprise Value
Source: EduPristine (2018)

2.1.6.1 Components of Enterprise Value

Equity Value

Equity value is found by taking the company's fully-diluted shares outstanding and multiplying it by a 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 capitalization 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 have 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 (who 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,

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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 enterprise value because it will reduce the acquiring costs of the target company.

Importance of Enterprise Value

- It tells us about the worth of the company. In other words, it's a theoretical take over 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 the ones interested in buying controlling stakes.
- For the stock market investors, it is used to neutralize the risks and accordingly compare the returns expected

Theoretical Review

This study is anchored on Legitimacy theory

Legitimacy Theory

Legitimacy theory has become one of the most cited theories within the social and environmental practices of firms. Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs and definitions (Suchman, 1995). From an organisational view, legitimacy is an operational resource that a corporation extracts from its society or cultural environment in order to pursue the goals. Legitimacy is considered as a fundamental resource on which a corporation is dependent for survival (O'Donovan, 2002). There are certain actions and events that can increase legitimacy whereas some decrease it. The low state of legitimacy in corporations will have potentially negative consequences, which eventually may lead to the forfeiture of their rights to operate (Tilling, 2004). Hybels (1995) argued that good models in legitimacy theory must examine the relevant stakeholders. This is to ensure that important stakeholders influence the flow of business resources. Critical organizational stakeholders were identified by Hybels (1995), such as the state, the public, the financial community and the media. The importance of each stakeholder is different across nations due to cultural differences. Therefore, under this approach, the corporations are assumed to be influenced by their continuing operations, as well as the society where they operate.

Legitimacy theory is based on the notion of a social contract (Guthrie & Parker, 1989), and it has been derived from political economic theory (Gray, Owen & Adams, 1996). Deegan (2002) directly pointed that 'social contract' is not easy to define, "but the concept is used to represent the multitude of implicit and explicit expectations that society has and how the corporation should conduct its operations". As Mathews (1993) states:

"…the social contract would exist between corporations and individual members of society. Society provides corporations with their legal standing and attribute and the authority to own and use natural resources and to hire employees. Organizations draw on community resources and output both goods and services, and waste products to the general environment. The organization has no inherent rights to these benefits, and in order to allow their existence; society would expect the benefits to exceed the costs to society."

Social, political and economic issues could not be separated when studying corporate social and environmental disclosures, because each of the issues could be significant and has to be linked with

another when investigating (Deegan, 2002). Legitimacy theory assumes that voluntary corporate social and environmental disclosures are in response to social, economic and political factors and legitimizes management and its activities. In the short run, corporations attempt to establish coexistence between their social value and the society; however, different communities often have a different definition of legitimate corporate behaviour (Deegan, 2009). Therefore, the companies cannot do 'right' or 'wrong' but the society has the right and privilege to assess them (Christopher, 2002). This explains the reason why legitimacy theory is one of the most adopted mechanisms for explaining corporate environmental and social disclosures.

Empirical Review

Firstly, Miralles-Quirós *et al.* (2019) examined ESG Performance and Shareholder Value Creation in the Banking Industry in different countries. The aim of the study was to examine the role of sustainability practices on shareholder value creation in a sample of 166 banks from 31 countries over the 2010–2015 period. The data of the study was extracted from the hugely employed Thomson Reuters Eikon database. Specifically, the study employed the environmental, social, and corporate governance (ESG) performance calculated by Thomson Reuters Eikon for each company. This database company calculates these scores as the weighted average of the scores achieved in more than 70 key performance indicators (KPIs) calculated from more than 400 data points. Time and cross-section dimensions were selected in order to obtain heterogeneous, as well as balanced panel data that allows for concluding remarks. The results reveal that there is no homogeneity in the value relevance of environmental, social, and governance practices adopted by the selected banks over the entire sample period. More precisely, the study found that there exists a positive and significant relationship of banks' environmental and corporate governance performance with Tobin's Q and, therefore, with shareholder value creation. On the other hand, there exists a negative and significant correlation of banks' social performance with shareholder value creation. The study concluded that the relationship between ESG performance and banks' shareholder value creation is complex and needs more research. Moreover, the study suggested that future lines of research should aim at analyzing the direct impact on the creation of value for the shareholder and society of more specific measures of internal and external CSR of banks, such as the actions adopted to contribute to the satisfaction of employees or the actions adopted to contribute to the reduction of polluting emissions, respectively. In this way, studies could deepen even more in the essential aspects that should be taken into account by these companies for the creation of shared value and therefore contribute to sustainable development.

Ting, Azizan, Bhaskaran & Sukumaran (2019) examined the impact of firms' environmental, social and governance (ESG) initiatives on financial performance. The study also compared the valuation effects of corporate social performance initiatives in developed and emerging market firms. The study was based on ESG ranking scores in the Thomson Reuters database, and the sample comprised 1317 emerging market firms and 3569 developed market firms. In comparison with developed market firms, emerging market firms had higher ESG combined scores, ESG Controversy scores, category scores of resources use, workforce, human rights and corporate social responsibility strategy scores. The study found that stakeholder initiatives positively impact valuation effects, based on all sample results. Firm-generated controversies may decrease valuation effects in the stock market.

The results indicated that ESG initiatives have a significant positive effect on the firm performance. The presence of independent board members and ownership by investors is a positive determinant for value creation. The adoption of best practice corporate governance principles is an important determinant of the valuation of firms. Firms' propensity to use defence mechanisms decreases valuation effects. The study also noted that the developed market firms received positive valuation effects due to ESG initiatives.

Dahlberg & Wiklund (2018) with the shareholder view of creating value, investigated ESG investing in Nordic countries. The study noted that the Nordic countries Sweden, Finland, Denmark, and Norway are ranked top four in the world when it comes to ESG ratings. The objective of the study was to see if Nordic investors value ESG factors, by testing for a relationship between high ESG ratings and corporate financial performance. The study conducted several multiple regression analysis with data for a time-span between 2007-2017 on 108 firm observations and 995 firm-year observations.

The study used Tobin's Q and Return on Assets as measurements for corporate financial performance and the dependent variables. While the Tobin's Q represents the market performance, the Return on Assets represents the accounting performance. The results indicated that there is a significant positive relationship between several ESG ratings and market performance, there was no significant positive, nor negative, relationship between accounting performance and ESG ratings. The study indicated that investors take more factors into consideration in their investment decisions than only financial accounting returns, and concluded that the Stakeholder theory better explains value creation than the Shareholder theory.

Similarly, Tarmuji, Maelah & Tarmuji (2016), studied the impact of environmental, social and governance practices (ESG) on economic performance: evidence from ESG Score. The aim of the paper was to investigate the impact of Environmental, Social and Governance (ESG) practices on economic performance. The study used a sample of non-financial data from two countries (Malaysia and Singapore) for the period of 2010–2014 from ASSET database of Data-Stream, by Thomson Reuters Inc., the world's leading source of intelligent information for businesses and professionals. The database search revealed a total of 80 companies, which comprises of 35 companies in Malaysia and 45 companies in Singapore disclosed on ESG practices. The data were subjected to constant disclosure over the period of 2010 to 2014. The study contributes to the existing literature on ESG practices and its relationship with economic performance utilizing panel data that expand into international perspective. The study suggests that social and governance practices significantly influence economic performance. The result of the study reveals that environmental practices for both countries are significantly and positively correlated with economic performance. Moreover, the study found that corporate environmental practice has no significant influence on economic performances in both countries. The study predicted that social responsibility practices have significant impact on the economic performance, that is, social practices significantly influence economic performance for companies in Singapore but not in Malaysia.

Thirdly, Ana *et al* (2018) examined corporate sustainability and value creation. The objective is to assess whether the inclusion of a specific company can change or reflect companies market demand. Secondary data were used in this study, annual reports of 154 companies listed in New York stock market were extracted, the study revealed that average stock returns and traded volumes is not statistically significant with environmental and social information. Hence, environmental and social information were not considered important as there were no changes in valuation of companies deemed environmentally and socially accurate. Neither did it show reduction in financial performance.

Louise (2015) investigated the relationship between sustainable performance and firm performance within the basic materials industry. The objective of the study was to examine if there is a relationship between ESG and financial performance. A panel data sample between 2003 and 2013 of 94 European basic materials firms were used. Regression analysis technique was used to analyze the data, the result revealed that there is a negative relationship between ESG and financial performance. This indicated that firm within the particular industry do not have right conditions to reap the financial benefits of ESG to a very large extent. The study recommends future studies to investigate the relationship over a long period of time.

Research Design

this study adopted the content analysis research design.

Content Analysis

Different ways and units of analysis have been used in content analysis. This is because choosing a suitable unit of analysis is an important step in conducting content analysis, and it depends on the decision of the researcher and how the researcher wants to drive the analysis (Eltaib, 2012).

The prior empirical studies suggest that appropriate unit of analysis could be in written communication, words, sentences or pages, and the case for using different units revolve around the unit of meaning and the extent to which each unit can legitimately be employed to draw the appropriate inferences (Uwaloma, 2011). Sentences could be appropriate when the researcher is looking for the inner meaning,

pages are suitable when the purpose of the study is to see the space given to the topic, and words are preferred, especially when the researcher is looking for specific words.

In ESG disclosures research, use of words as a unit of analysis has some drawbacks (Campbell, 2003; Milne and Adler, 1999). Words do not convey any meaning by themselves and do not give a sound foundation without a sentence to code ESG disclosure (Milne and Adler, 1999). In contrast, a sentence is recognised as the main unit of speech or writing (Walden and Schwartz, 1997). Most of the studies in the area of ESG disclosure have used sentences as a unit of analysis in their content analysis and it has become more popular in the areas of corporate environmental, social and governance disclosure (Miralles-Quirós, *et al.,* 2019; Uwaloma, 2011; Gray, *et al.* 1995; Guthrie & Abeysekera, 2006). Using sentences as a unit of analysis, is more appropriate compared with other units and it is more likely to supply complete, reliable, and meaningful data for additional analysis (Guthrie & Abeysekera, 2006). In the present research, sentences were used as a unit of analysis to capture the ESG disclosures in relation to the categories and underlying factors highlighted in chapter 2 of this study. The coding frame is as follows:

Table 3.3 Content Analysis Coding Frame

Corporate Sustainability Pillar	Category	Category/ Underlying Factors Appearance	Sentence indicating category/ Underlying Factors	Positive	Negative	Total Qualitative	Weighted
Environmental	Resource Use						
	Emissions						
	Innovation						
	E TOTAL						
Social	Workforce						
	Human Rights						
	Community						
	Product Responsibility						
	S TOTAL						
Governance	Management						
	Shareholders						
	CSR Strategy						
	G TOTAL						
Corporate Sustainability	CSF/ESG						

Source: Researcher's Design based on Thomson Reuters ESG Scores Methodology
**Refer to table 2.2 for the underlying factors.*

Data Visualization and Descriptive statistics

This section of analysis presents the data visualization and descriptive statistical techniques of visualizing, summarizing and describing the information (data) collected. Data were visualized and descriptively explain the trend and pattern in the corporate sustainability and enterprise value creation data collected: giving a quick lookup insight into the trend and pattern of corporate sustainability and enterprise value data. Unambiguously, data visualization are such as bar graph, pie chart; and descriptive statistics such as mean, standard deviation, Maximum and Minimum.

Inferential Statistics

This section of the study presents the inferential statistics proposed for this study. This includes the One-way ANOVA and Panel regression analysis.

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One-Way ANOVA Model

The f-statistic of the One-way ANOVA was utilized to assess whether there is statistically significant difference in the means of corporate sustainability disclosures and enterprise value creation across the sectors of the Nigerian Stock Exchange Market. Ting *et al.* (2019) used mean difference to compare ESG data among developed and emerging market Firms. The test of mean difference could be conducted using one sample t-test, independent samples t-test and One-way ANOVA depending on the number of groups comparable. The one-way ANOVA is used when comparing the mean of three (3) or more groups. This study used the one-way ANOVA, since the groups (sectors) are more than 3. The following hypotheses were tested using the One-way ANOVA:

Model specification

HO_1: *There is no significant difference in the enterprise value creation (EVC) across the sectors in the Nigerian Stock Exchange Market.*

HO_2: *There is no significant difference in the corporate sustainability factors (CSF) across the sectors in the Nigerian Stock Exchange Market.*

The one-way ANOVA model is stated thus:

$\boldsymbol{Y_{ij} = \mathcal{U} + T_i + \mathcal{E}_{ij}}$……………………………………………...………………. (i)

Where:

$\boldsymbol{Y_{ij}}$ = is the jth observation of the ith treatment

$\boldsymbol{\mathcal{U}}$ = is the population mean

$\boldsymbol{T_i}$ = is the treatment effect of ith treatment and

$\boldsymbol{\mathcal{E}_{ij}}$ = is the random error.

Regression Analysis

Regression analysis is a statistical method to make quantitative estimates of economic relationships that previously have been purely theoretical (Dahlberg & Wiklund, 2018). A regression model can be used to explain changes in a dependent variable, as a function of the changes in independent variables, through quantification in a single equation (Studenmund, 2014: 5). In order to establish if there is a relationship between the corporate sustainability factors – ESG and enterprise value creation, the use of a regression analysis is suitable in line with several previous studies (Emeka-Nwokeji & Osisioma, 2019; Miralles-Quirós *et al*., 2019; Dahlberg & Wiklund, 2018; Tarmuji, Maelah & Tarmuji, 2016; Ana *et al*., 2018; Uwuigbe *et al*., 2018; Nwobu, 2017).

The model used by Emeka-Nwokeji & Osisioma (2019) are presented as:

TOBINSQi□=□+ β_1 *ENVI* +β_2 *SOCI* +β_3 *GOVI* +β_4 *FSIZE* +β_5 *FAGE* +β_6 *TLBTA* +Ɛ ....(ii)

Where:

Tobin's Q = Firm value which is measured as Market Value of Equity + Book Value of Total Debt divided by Total Asset

β0 = Intercept estimates

β1-6 = Coefficient of the independent variables

e = error term

ENVI = Environment Sustainability

SOCI = Social Sustainability

GOVI = Corporate Governance Sustainability

Control Variables:

FSIZE = Firm Size measured as Log of total assets.

FAGE = Firm Age measured as Number of years a company is listed

TLBTA = Leverage measured as Total Liabilities divided by total assets.

RESULTS

This section presents the pooled regression, fixed and random effect models estimates for hypothesis four. It also presents the Hausman test result for this model. The null hypothesis four is stated thus:

Table 4.1 Comparison of Sample and Actual Selected Companies by Sectors

Sector	Number of Sample Companies	Number of Actual Companies Used
Financial service	27	21
Services	13	15
Consumer goods	11	11
Industrial goods	7	7
Oil and gas	6	6
Healthcare	5	6
ICT	5	5
Construction/real estate	5	4
Conglomerates	3	3
Agriculture	3	3
Natural resources	2	3
Grand Total	**87**	**84**

Source: ***Researcher's Computations 2021***

The sectorial sample and actual companies' accessibility report is graphically represented in the below chart:

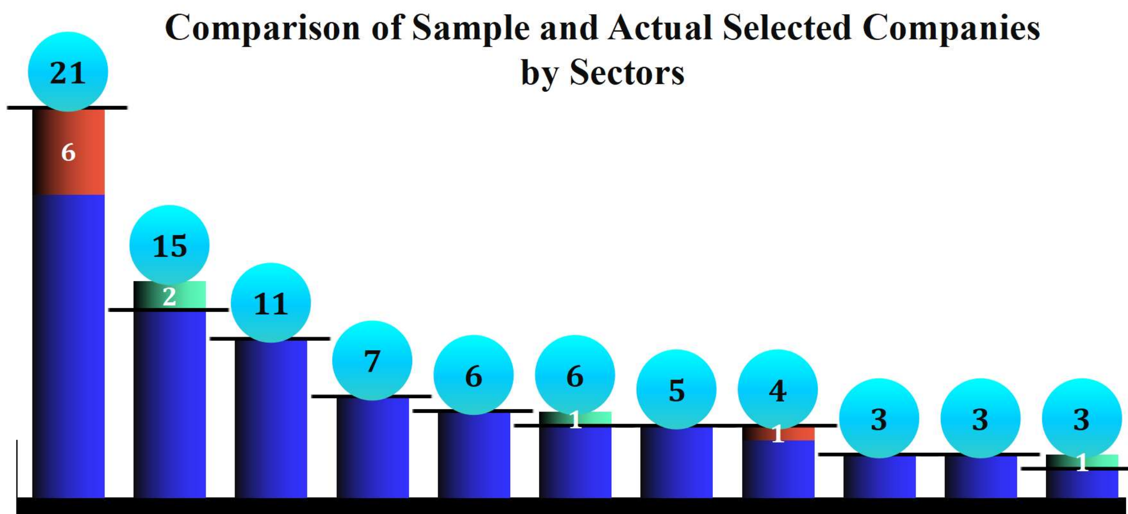

Figure 4.2 Sample and Actual Selected Companies by Sectors

Source: *Researcher's Design 2021*

Where FIN =Financial Services, SER = Services, CON = Consumer goods, IND = Industrial goods, O\ G = Oil and Gas, HC = Healthcare, ICT = ICT, CRE = Construction/Real Estate, CONG = Conglomerates, AGR = Agriculture, NAT = Natural Resources.

Therefore, the actual number of companies used for this study was eighty-four (84). The data used for this study is as presented in appendix A.

4.2 Descriptive Statistics

This section of the study presents the descriptive statistics of the variables used in the study. Descriptive analysis such as mean, maximum, minimum, and standard deviation were used to examine the trend in corporate sustainability factors (ESG), control variables and enterprise value creation among the selected companies in Nigeria to get first-hand information about the variables of the study. The result of the descriptive analysis is as presented below:

Table 4.2 Descriptive Statistics

Variables	Mean	Maximum	Minimum	Std. Dev.	Observations
EV	266828234	7263030239	80908.98	911178389	420
RES	0.130595	0.970000	0.000000	0.145800	420
EMI	0.112405	0.970000	0.000000	0.148329	420
INN	0.092810	0.960000	0.000000	0.130038	420
WF	0.136429	0.980000	0.010000	0.140344	420
HR	0.116143	0.950000	0.000000	0.115591	420
COM	0.135143	0.980000	0.010000	0.145493	420
PR	0.121929	0.970000	0.000000	0.133201	420
MGT	0.177500	0.990000	0.010000	0.149971	420
SHA	0.112429	0.940000	0.010000	0.140846	420
CSRS	0.096310	0.910000	0.000000	0.107730	420
E	0.113062	0.797647	0.003529	0.118204	420
S	0.130837	0.817788	0.019401	0.113184	420
G	0.153660	0.710667	0.020667	0.110172	420
FS	16.86900	22.79325	11.46067	2.206866	420

Source: Researcher's Computations using EViews 10 (See Appendix B)

Enterprise Value (EV)

From table 4.2, the result of the descriptive statistics shows that between 2015 to 2019 across the eighty-four (84) firms examined in this study, the mean of enterprise value was 266828234. This implies that the average enterprise value for the selected firms for 5years was ₦266,828,234. The table also indicated that the enterprise value across the firms in the period examined fluctuated between the minimum of ₦80,908.98 to a maximum of ₦7,263,030,239. The standard deviation (Std. Dev.) indicates that the dispersion or spread in the enterprise value series is 911178389. This indicates a very high spread out from the mean value.

Inferential Statistics/Test for Hypotheses

This study used One way ANOVA to test the hypotheses one and two, while pooled regression, fixed and random effect models were used to evaluate null hypotheses three, four, five and six. The best fitted model between fixed and random effect was determined by the Hausman test.

4.3.1 Hypothesis One

Using the one-way ANOVA, this study compares the difference in the mean of enterprise value (EV) between the sectorial classification of Nigerian stock exchange. Its hypothesis is restated thus:

HO_1: There is no significant difference in enterprise value (EV) across the sectors in the Nigerian Stock Market.

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HA_1: There is a significant difference in enterprise value (EV) across the sectors in the Nigerian Stock Market.

Decision Criteria:

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

Table 4.3 ANOVA for Significant Difference in Enterprise Value Among the Sectors of the Nigerian Stock Exchange

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	678379640284487	10	6783796402844870	9.908	0.000
Within Groups	2800351333974470	409	684682477744370		
Total	3478730974258960	419			

Source: Researcher's Computations (2021) using EViews 10 (See Appendix C)

The ANOVA result presented above in Table 4.3 indicates that F statistic was 9.908 with a probability (sig) of 0.000. This indicates that there was a significant difference in the mean of enterprise value among the sectors of the Nigerian Stock Exchange. Implying that the statistically significant results of ANOVA indicate that not all of the group (Sectors) means are equal. In other words, the statistically significant difference implies that the mean of enterprise value was not equal among the sectors. However, the ANOVA results did not specify which differences between pairs of means were significant. Hence, the need for post hoc test. The post hoc tests explore the differences between the group means.

The post hoc test indicates that the statistically significant difference suggested by ANOVA result presented in table 4.3 above was triggered by the mean difference between the Financial Sector and all other sectors of the Nigerian stock exchange (See appendix D). The Fisher's Least Significant Difference (LSD) Post Hoc Tests indicates that the mean of enterprise value of financial services sector of the Nigerian Stock Exchange market was statistically significantly different from the means of enterprise value of the agricultural, conglomerates, construction/real estate, consumer goods, health care, ICT, industrial goods, natural resources, oil and gas, and service sector. This is because the post hoc test indicated that the probability (sig) associated with the test of mean difference between the financial service sectors and other sector of the Nigerian stock exchange market were less than 0.05 (see appendix D). This implies that there were significant difference in the enterprise value (EV) across the sectors in the Nigerian Stock Exchange Market. Specifically, the enterprise value mean in financial service sector is significantly different from other sectors of the market. Thus, this study rejects the null hypothesis that there is no significant difference in the enterprise value (EV) across the sectors in the Nigerian Stock Exchange Market. Thereby accepts the alternative that there was significant difference in the enterprise value (EV) across the sectors in the Nigerian Stock Exchange Market.

CONCLUSION

Corporate sustainability factors (CSFs) are the set of non-financial factors that can have material impacts, either positive or negative on the corporate performance or value of a firm (Whitelock, 2015). In recent times, these factors have become of high importance to the stakeholders of the firm, including investors, employees, boards of directors, customers, regulators, activists and even the government. This is basically due to the desire to build sustainable community and economic unities. However, there are limited empirical studies on the relationship between the corporate sustainability factors and firm performance or value in developing economies. Therefore, this study has examined the corporate sustainability and enterprise value creation in the Nigerian stock market to provide empirical evidence in this regard. The following findings emerged from the study. There was significant difference in the enterprise value (EV) across the sectors in the Nigerian Stock Exchange Market. Specifically, only the financial service sector recorded a significant enterprise value mean different from other sectors of the Nigerian Stock Exchange Market.

Recommendation

Based on the findings of this study we make the following recommendation is made:

i. Companies in all sectors as classified by the Nigerian Stock Exchange Market should develop sustainable models that will improve their enterprise value and help them to compete for capital in the stock exchange market. This is based on the finding that there was a significant difference in the enterprise value across sectors of the Nigerian Stock Exchange Market.

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