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BOARD ATTRIBUTES AND SUSTAINABILITY REPORTING OF LISTED FIRMS IN NIGERIA

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Abstract

This study investigates the impact of board attributes on sustainability reporting among listed firms in Nigeria from 2013 to 2022, using a correlational research design. The research population encompasses all Nigerian listed firms, with a stratified sampling technique deemed appropriate for the study. Secondary data were sourced from the audited annual reports and accounts of sampled firms available on the Nigerian Exchange Group (NGX) website. The analysis of the extracted panel data was conducted using multiple regression techniques with STATA version 13. The findings of the study reveal that board size, gender diversity, and independence positively influence sustainability reporting, while board commitment has a negative impact on sustainability reporting. Consequently, the study recommends that the management of Nigerian listed firms should view large and diverse boards as an asset for promoting sustainability reporting. Such boards, comprising experienced and knowledgeable members, are more likely to make effective decisions on sustainability-related issues. Additionally, the presence of women on boards should be considered a valuable factor in encouraging comprehensive financial reporting, which includes qualitative and quantitative information on the social, environmental, and economic activities of the business for stakeholders.

Keywords: Board size, gender, independence, commitment and sustainability reporting

1. Introduction

It is imperative to note that sustainability reporting has been considered as one of the world contentious issues as far as corporate business environment is concern. Sustainability in the context of International Financial reporting Standards (IFRS) deals with financial reporting that focused on information disclosure of business environment, economic, social and governance performance. Although, IFRS framework has no dedicated standards specifically on the sustainability reporting, in same vain, corporate entities are obligated prepare their financial report based on the requirements of corporate best practice.

Today, individual investors and other stakeholders of different corporate entities have raised serious concern on the adoption of suitability reporting practice particularly in Nigeria, being a requirement for global best accounting practice. Considering the growing global pressure on sustainability reporting in line with the established Global Reporting Initiative (GRI) framework in consideration with the world Suitability Development Goal (SDG) agenda, sequel to the Paris climate deal on environmental degradation through carbon emission which causes global warming of climate (Malarvizhi & Yadav, 2008).

Following to the adoption IFRS in 2012 by the Financial Reporting Council of Nigeria (FRCN), all corporate organizations have been encouraged to comply with its requirements towards enhancing their financial reporting credibility, transparency and reliability to specifically encourage foreign direct investment and to foster economic development. Although, Young and Marais (2012) in their study expressed concern and interest on the way and manner Nigerian corporate organizations disclose their quantitative and qualitative information that would enable them ascertain the extent of their general well-being. Yet, the Nigerian Security and Exchange Commission (SEC) essentially emphasized the need for a transparent and credible financial and non-financial disclosure in line with the ethical standards of Company and Allied Matters Act (CAMA) by the management of all listed corporate entities in Nigeria (SEC, 2011). Also, in an effort to achieve the global standard and regulatory framework on environment protection, Federal Environmental Protection Agency and Federal Ministry of environment, in Nigeria provided guide lines to the all industrial related firms on the waste management towards environmental protection based on the waste and pollution Decree No. 42, 1988 and other relevant laws (Yunusa, 2017). Nevertheless, being one of the environmentally polluted countries via gaseous and chemical substances of industries as well as oil spillage due to criminal activities, due to the negligence of public concern and absence of legal requirement, Nigeria was reported to be backward in the aspect of environmental reporting disclosure (Adewuyi & Olowookere, 2010; Adeyemi & Fagbemi, 2010 & Hassan, 2012).

Nevertheless, the integration of sustainability reporting into IFRS framework has attracted the attention of researchers in various context like (Cicchiello, et al., 2021; Asuquo, 2012; Ndalu, et al., 2021; & Chinonyelum & Ndubuisi, 2022) were conducted in relations to the subject matter in various context and come up with mixed results. In that regard, this study deemed it necessary to investigate the moderating effect of board commitment on the relationship between board characteristic and sustainability reporting among the listed firms in Nigeria between the periods of (2013-2022).

Also, this study employed Legitimacy Theory which to the best of the researcher 's knowledge it has not been used in any of the related study. Thus, it will serve as a contribution to existing as far as literature of accounting and finance is concern. Accordingly, the inclusion of the board commitment as a moderating variable will enable the researcher fill another the existing gap via changes in the straight and direction of the relationship between the independent variable board characteristic represented by (board size, gender and independence) and the dependent variable sustainability reporting represented by (economic, social and environment).

The outcome of this paper would guide the management and board of Nigerian listed companies for effective decision making as far as suitability reporting is concern. Also, the result of the study would beneficial to government agencies authorities like federal Inland Revenue Service (FIRS), Nigeria Securities and Exchange Commission, Nigerian Social Insurance Trust Fund (NSITF), Federal Environmental Protection Agency, Federal Ministry of Environment in carrying out their activities. Furthermore, the study would be serving as a guide and source of reference in carrying out further related study. The paper consists of introduction, related literature, methodology, results and discussion, as well as conclusions and recommendations.

2. Literature Review

Sustainability reporting is often seen as an important tool for corporate policy and strategy of organization (Ong & Djajadikerta, 2018). According to Durand, Paugam (2019) sustainable reporting is viewed as an operational policy that provides opportunity for ensuring sustainable development goals achievable through sustainable financial outcome and business practices. Therefore, sustainability reporting spread across social responsibility, culture and ethical corporate governance, economic efficiency and environmental awareness (Hu & Lu, 2018). Herda, Taylor and Winterbotham (2012) emphasized that in a normal ground corporate sustainability disclosure reduces information asymmetries and uncertainties among the business stakeholders.

It is important to note the Global Reporting Initiative (GRI), International Integrated Reporting Council (IIRC) and Sustainability Accounting Standards Board (SASB) developed an elaborate guideline in relation to sustainability reporting and it impact on the organization performance with aim of enlighten the corporate entities as well as public organization across. Belal (2009), Hahn (2009) and Lourenço (2013) express that the applicability of the corporate sustainability reporting is essentially made to boost the confidence of the investors and related stakeholders on corporate transparency and accountability. According to parliament of Australiaç Trireksani, and Djajadikerta (2016) sustainability reporting is the one that deals with public reporting and measurement of the business impact on matters relating to its economic, social and environmental activities.

Board of an organization are committee of individual persons who are appointed by the shareholders of corporate entities that charged with responsibility for making strategic decision for the business and also monitor and control the activities of the management to ensure the survival and growth of the business. According to Gardazi, Hassan and Johari (2020) is the process by which organizations are management and controlled by certain group of individuals to protect the stakeholders' integrity. The board compositions are often measured in terms of their sizes, duality, gender, educational qualifications, tenure independence, experience, nationality, commitment among others.

Board size is considered as the entire number of board members arising from the chairman, all director's executive and non-executives as well as independent non-executive of listed organizations. Therefore, board size is considered as the total numbers of both executives and non-executives directors on the board (Disli, Yilmaz & Mohamed, 2022; Aksoy, Yilmaz, Tatoglu & Basar, 2020). On the other hand, Okwudili, Chibuzor and Clement (2023) considered the measurement of board size the total serving members of executive and non-executive directors with in an organization. According to Kruders & Kabir (2018) and Saari and Kao (2019) board size is measured as total number of board members in an organization. On the hand, Inua, and Meni (2019) measured board size as the number of directors siting on the board.

According to Kruders & Kabir (2018) and Saari and Kao (2019) board gender is measured as number of female board members over the total number of board members. But, Inua, and Meni (2019) considered board as the total number of women on the board for the periods under consideration. Although, Chinonyelum and Ndubuisi (2022) considered board gender as board female representative; measured as proportion of female to number of directors in the board.

Board independence are the non- executive directors that are entitle to sitting allowance that are seen to be independent as they have no affiliation with the organization, management and shareholders within the periods of two years before their appointment as non-executives directors. Sandhu and Singh (2019) considered board independence as directors that are responsible for monitoring the affairs of the organization in an uninterrupted manner to ensure the growth and suitability of the organization. Also, Ngwakwe, Ganda and John (2014) opined that an independent board member is the one that play a significant role of corporate management to ensure the growth and sustenance of business operations. According to Kruders & Kabir (2018) and Saari and Kao (2019) board independence is the number of independent directors (non-executive directors) over the total number of board members. And Chinonyelum and Ndubuisi (2022) emphasized that board independence is that proportion of non-executives directors to total directors.

It is pertinent that the commitment of the board can be ascertained through the frequency of meeting conducted by the board themselves. Although studies were conducted justify such assertion. For instance Liao et al (2018) affirmed that the board commitment is accessed based on the number of meeting held in an organization. Accordingly Alotaibi et al. (2016) considered board meeting as a medium through which information are communicated among certain business stakeholders. According to Saari and Kao (2019) board commitment is refers to the frequency of board meeting, as the number of board meetings per year. While, Chinonyelum and Ndubuisi (2022) considered board commitment as number of times that the board met during a financial year.

2.1 Board Size and Sustainability Reporting

According to Tang and Qingling (2016) there is a significant connection between firm size sustainability reporting. Ettredge et al. (2010) stressed that board size linked to sustainability disclosure significantly. On the other hand, the number of boards has an influence on the sustainability reporting significantly. In a study conducted by Australia, Karim, Kand and Rutledge (2004) board size is significantly influence between sustainability reporting positively. Alnabsha, Abdou and Ntim,(2018) affirmed that board size is significantly influence by sustainability disclosures positively. On the hand, Farah, Farrukh and Faizan (2016) and Naseem, Rehman, Ikram (2017) conducted a study in Pakistan and discovered that board size has a connection with a sustainability reporting positively. But, Mahmod, et al (2018) discovered that board size is positively correlated with sustainability disclosure practices. But, Amran, Lee and Devi (2014) stated that board size is significantly connected to sustainability reporting negatively. Thus, it is on this basis a hypothesis is formulates as:

$H_{O1:}$ Board Size has no significant effect on sustainability reporting of listed firms in Nigeria

2.2 Board Gender and Sustainability Reporting

According to Putri and Nasih (2022) the decision of on sustainability reporting which comprises of (governance, social and environmental) is affected by board gender. Accordingly, Kassinis, Pnayiotou, Dimou (2016) discovered that there is a connection between board gender and sustainability disclosure positively. While, Bear and Rahman (2010) argued that t board gender diversity has a significant influence on the sustainability disclosure of an organization. On the other hand, Al - Baalouch (2019) asserted that women presence in the board has a significant influence on sustainability reporting. Following the above argument and findings, the study hypothesized that:

$H_{O2:}$ Board Gender has no significant effect on sustainability reporting of listed firms in Nigeria

2.3 Board independence and Sustainability Reporting

Board independence is considered as an aspect of corporate governance which ensures that the stakeholder’s interest is protected (Ong and Djajadikerta, 2018). Also, Hu and Loh (2018) emphasized that there is an association between independent directors and sustainability disclosure. However, in a study conducted by Masud, est al (2018) in Pakistani independent board of directors were termed as determinants of transparency, accountability which form the basis of organization’s corporate sustainability reporting. Although, in a similar study conducted in Saudi Arabian and Pakistani by Alotaibi (2016) it was discovered that board independence and sustainability disclosure practices have negative and significant correlation. Also, another study by Naseem at al. (2017) revealed that corporate sustainability practice is facilitated by independent directors in Pakistan. Similarly, Muttakin (2014) established that the independent directors influence the sustainability reporting disclosures positively. Herda et al. (2012) proposed that firms’ reporting disclosure ability is often influence by board independence decision. As such, a hypothesis is formulated in a null form as:

$H_{O3:}$ Board Independence has no significant effect on sustainability reporting of listed firms in Nigeria

2.4 Board Commitment and Sustainability Reporting

Few studies were conducted with respect to the board commitment and sustainability among which was the study of Alnabsha et al. (2018) that confirmed the board commitment to be significantly connected to sustainability positively. In same vain, another study by Naseem et al. (2016) in Pakistan stressed that the commitment of the board influences is likely to influence sustainability reporting. Still, Iraya and Mwangi (2014) opined that board meetings as a board commitment has a greater tendency to influence the decision on corporate reporting of the organisation. Likewise Khan et al. (2019) emphasized that number of time meet by the member affect the decision for sustainability disclosures. Also, Shrivastava and Addas (2014) found a correlation between the number of board meetings and firms’ performance and CSR. Hu and Loh (2018) establish that the board meetings frequency and sustainability reporting disclosure are significantly associated positively. Therefore, in lined with these divergence views, the following hypothesis is formulated as:

H_{O4}: Board commitment has no significant effect on moderating board attributes and sustainability reporting of listed firms in Nigeria

3. Methodology

The study employed correlational research design covering a period of 2013 to 2022 using stratified sampling technique as a suitable technique of the study based on the following criteria:

i. First, the company must have been listed in Nigeria exchange group (NGX) amongst listed firms as defines by Shahin (2015) adopted definition "manufacturing firms under NGX that is engage in the production of goods through transformation of raw materials or components into finished products using physical and chemical processes". That enables the author utilize all possible GRI 3.1 sustainability disclosure index (economic, social and environment) from the targeted samples of study.

ii. The company must have been listed not later than 2013.

Table 1: Sample Size of the study

S/ No	NGX Sectorial Classification	Actual number of the Companies	Number of the selected firms
1	Agriculture	5	3
2	Conglomerate	2	1
3	Consumer goods	16	11
4	Health care	6	4
5	Industrial goods	11	8
6	oil and gas	3	2
	Total	43	29

Sources: NGX Website (2024)

Table.1 shows the detail of the selected sample size based on the aforementioned criteria; these comprise of a total of 29 firms of the 43 listed manufacturing firms drawn from some selected sectors namely: Agriculture, conglomerate, consumer goods, health care, industrial goods and oil and gas respectively. However other sectors like; natural resources, services, construction/real estate, financial services, and ICT were removed based on the criteria.

Multiple regression technique used to analyze the data with the aid of STATA 13 version software been a tool the analysis.

Model Specifications

This study adapted a panel multiple regression model of Yahaya, Idris and Mohammed (2023) in an attempt to test the effect of board attributes on sustainability reporting of listed Nigeria firms, which is encapsulated in the model below:

$SR_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BG_{it} + \beta_3 BI_{it} + \beta_4 BC_{it} + \mu it$ ……..………………………….(i)

Where:

SR= Sustainability reporting (Dependent variable)

i= Entities

t= Time

$\beta 0$ = Constant

β_1-β_4 = Coefficients of parameters

BS = Board size (Independent variable)

BG = Board gender (Independent variable)

BI = Board independence (Independent variable)

BC = Board commitment (Moderating variable)

μ = error term

Table 2: Variable measurements and sources

Dependent variable			
Sustainability reporting	SR	GRI version 3.1 Disclosure indicators (Economic, social and environmental) of sustainability reporting as: Index score = n/k, Where: n= number of index which is fulfilled by the company and k= the maximum index which should be fulfilled by the company.	GRI (2022)
Independent variables			
Board size	BS	Board size is measured as total number of board members in an organization	Kruders and Kabir (2018) and Saari and Kao (2019)
Board gender	BG	Board gender as board female representative; measured as proportion of female to number of directors in the board	, Chinonyelum and Ndubuisi (2022)
Board independence	BI	Board independence is the number of independent directors' non-executive directors over the total number of board members	Kruders and Kabir (2018) and Saari and Kao (2019)
Board commitment	BC	Board commitment as number of times that the board met during a financial year	Chinonyelum and Ndubuisi (2022)

Source: Author's compilation (2023)

4. Results and Discussion

This section focuses on presentation and discussion of descriptive statistics, correlation result and regression results,

Descriptive Statistics

The characteristics of the variables have been described in this descriptive statistics table as:

Table 3: Descriptive statistic

Variable	Min	Max	Mean	Std. Dev.
SR	0.4161	2.3226	1.5568	0.405
BS	3	19	9.9103	3.2506
BG	0	6	0.17133	0.1145
BI	0.25	1	0.6202	0.1528
BC	3	44	2.4966	2.5112

Source: STATA Output (2023)

Table 3 revealed the characteristics of the variables used for the study which comprises of the sustainability reporting (SR), Board size (BS), Board gender (BG), Board independence (BI) and Board commitment (BC). It is shown that sustainability reporting value ranges from the minimum value 1.5566 and maximum value of 2.3226 with the mean and standard deviation value of 1.5568 and 0.405 respectively. Also, board size maintained a mean value of 9.9103 that further ranges between the minimum value of 3 and maximum value of 19. But board gender that represented the proportion of female in board shows an average value of 0.17133 with a corresponding standard deviation of 0.1145 which spans between the minimum and maximum values of 0 and 6 respectively. On the other hand, board independence which represents the proportion of non- executive members from the number of the board maintained a normal value of 0.602 and a standard deviation value of 0.1528 with minimum and maximum values of 0.25 and 1. The board commitment as a moderating variable of the study shows a minimum and maximum value of 3 and 44 along with a mean and standard deviation values of 2.4966 and 2.5112 respectively.

Correlation Matrix

The correlation matrix focuses on association between and amongst the variables of the study, which comprises of the explained variable; sustainability reporting

(SR) and explanatory variables; board size (BS), board gender (BG), board independence (BI) and board commitment (BC) respectively.

Table 4: Correlation Matrix

Variables	**1**	**2**	**3**	**4**	**5**
SR	1				
BS	0.1533	1			
BG	0.2302	0.0615	1		
BI	0.0998	-0.0804	0.1440	1	
BC	-0.0447	0.1437	0.1589	0.0686	1

Source: STATA output (2023)

Table 4 shows that the correlations between SR with BS, BG and BI were positively weak at coefficient value of 0.1533, 0.2302 and 0.0998 respectively, while, the correlation between SR and BC which is negative. Except that the correlation between SR with BS and BG were significant at 1% each. On the hand, the correlations amongst the explanatory variables (BS, BG and BC) are seen to be positively weak, while that of BS and BI is negative with coefficient value of -0.0804. Except that the correlation between BS and BC is significant at 5%. Also, the correlation between BG with BI and BC were significant at 5% and 1% respectively. Hence, that signifies the absence of multicollinearity sign among the explanatory variables of the study.

Table 5: Regression Results

Variables	Coefficient	Z- values	P-Values	VIF	Tolerance Value
BS	0.0162	1.70	0.089	1.03	0.9685
BG	1.0278	4.19	0.000	1.05	0.9543
BI	0.3510	1.85	0.064	1.03	0.9678
BC	-0.0157	-1.9	0.083	1.05	0.9533
R^2	0.1019				
Adj R^2	0.0858				
F- Start	28.19				
F- Sig	0.0000				

Sources: STATA output (2023)

Table 3 represented the summary of a regression result of the study drawn from model I and model II respectively. Therefore, the parsimonious model has been duly subjected to post regression test to ensure best fit of the models upon which the results is interpreted based on "BLUE" and ultimately came up with a valid inference from the study. Meanwhile, that has been determined through the Hausman specification test conducted, that shows Chi 2 value of 0.024, which suggested for fixed effect Model as the best in interpreting the result of the study considering the absence of heteroskedasticity outcome of the hettest test that signifies equal spread of data from the model.

The Variance Inflation Factor (VIF) with the corresponding Tolerance Value was tested based on the rule of thumb of VIF and the Tolerance Value. The VIF which is constantly shown a smaller value than ten (10) with a corresponding tolerance value that constantly showing smaller value than one (1). These outcomes indicate absence of multicollinearity effect within the explanatory variables as far as the study is concern.

The parsimonious model maintains a cumulative R^2 (R- Squared) value of (0.1019) being a multiple coefficient of determination that represents the percentage of total variation in the dependent variable, been explained all the explanatory variables jointly in the study. This suggested that that 10% of the variation in dependent variable is cause by the explanatory variables jointly. And the outcome has been supported by the F- Stat and F- Sig values of (28.19) and (0.000) which further signifies the fitness of the model at 1%significant level.

Hypothesis One (Board Size and Sustainability Reporting)

Table 4 revealed board size' results showing a positive coefficient value of 0.01620 with a corresponding P- value of 0.089 which represent 10% significant level as far as Nigerian listed firms are concern. This means that board size has a positive and significant effect on sustainability reporting. In that regard, if there is any increase in board size, it will lead to increase in sustainability reporting by 2%. Meanwhile, It is evidence to reject the null the hypothesis that states board size has no significant effect on sustainability of listed firms in Nigeria, on the other hand, alternate hypothesis is accepted. The outcome is in line with the view of Ettredge (2011) and Pakistan et al (2016) and Naseem et al (2017) and contradicts the study of Amran at el (2014) and Kiliç et al. (2015), which justified the underpinning theory of the study.

Hypothesis Two (Board Gender and Sustainability Reporting)

It is found that board gender has a positive and significant relationship on sustainability reporting with a coefficient value of 1.0278 and P- value of 0.000 at 1% significant level. Therefore, it is means that any change made on the number of female directors in the board of Nigerian listed firm will lead to an increase on sustainability reporting by 103%. In that regard, the null hypothesis which states that board gender has no significant effect on sustainability of listed firms in Nigeria will not be accepted, but the alternate hypothesis will be accepted. This outcome is in line with the work of Manita et al (2018) and Lu and Herremans (2019) respectively. Also, the outcome o the study validated the underpinning theory of the study.

Hypothesis Three (Board Independence and Sustainability Reporting)

The result in the table 4 revealed that board independence is positively connected with sustainability of Nigerian listed firms at 10% significant level, represented by coefficient and p-value of 0.3530 and 0.064 respectively. This shows that for every 1 unit increase in the proportion of non-executive directors to the entire number of the directors would lead to increase in the sustainability reporting by 35%. These, serves as evidence for not accepting the null hypothesis that states board independence has no significant effect on sustainability of listed firms in Nigeria, but to accept the alternate hypothesis. This result agrees with Khan, Muttakin, and

Siddiqui (2013) and Naseemetal (2017), but, disputed the argument of Alotaibi and Hussainey (2016) and Mahmood et al (2018). The outcome further supported the underpinning theory of the study.

Hypothesis Four (Board Commitment and Sustainability Reporting)

Table 4 revealed that board commitment is a negative and significantly connected to sustainability reporting at on10%, as indicated by coefficient value of 0.0157 and p- value of 0.083. It is therefore, means that for any increase in the number of board members meetings will lead to reduction in the disclosure of sustainability reporting by 2%. This outcome indicated that the null hypothesis will not be accepted, but alternates hypothesis will be accepted. But, the outcome of this study is in contrast with the view of the Naseem et al (2017) and Alnabsha et al (2018). Thus, contradicted the underpinning theory of the study.

5. Conclusion and Recommendation

The paper examined the effect of board attributes on sustainability reporting of listed Nigerian firms. Therefore, it was found that the board attributes (size, gender, independent and commitments) were termed as good determinants of sustainability. Therefore, board size, gender and independent influence sustainability reporting positively, while, board commitment influence sustainability reporting negatively. Meanwhile, the board and the management of the listed firms in Nigeria should consider board size, board gender and board independent as essential determinants of corporate sustainability reporting, which provides opportunity for transparency and effective risk and financial management of the organization, so as to increase investors' confidence as well as other stakeholders. Hence, the following recommendations were made:

i. The management of the Nigerian listed firms should consider large or diverse boards members as an opportunity to encourage sustainability reporting in their organization as the large or diverse boards comprise of experienced and knowledgeable people easily make effective decision, as far as all sustainability related matters are concern.
ii. The management should consider the presence of women in the board as another means for influencing the organization to present a comprehensive financial report on the qualitative and quantitative information about the social, environmental and economic activities of their business to their respective stakeholders. In that regard, the presence of the women provide

opportunity to improve their sustainability reporting as most women are accustomed to social and environmental related issues.

iii. The management should consider their board non-executive members as promoters of sustainability reporting practice in their organizations, as they are working towards building the confidence of the investors on the general activities of the organization and to also ensure relevant and accurate information are presented to the stake holders.

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Company	ID	Year	Number of Emissions	Number of Workforce	Number of Directors of Board	ROA	Log of Emissions	Log of Workforce
EXXON Mobile	1	2013	127	75,000	12	9.47	2.10	4.88
	1	2014	124	75,300	12	9.2	2.09	4.88
	1	2015	122	73,500	12	4.72	2.09	4.87
	1	2016	124	71,100	12	2.31	2.09	4.85
	1	2017	121	69,600	12	5.69	2.08	4.84
	1	2018	125	71,000	12	5.96	2.10	4.85
	1	2019	120	74,900	12	3.99	2.08	4.87
	1	2020	112	72,000	13	-6.37	2.05	4.86
	1	2021	113	63,000	11	6.84	2.05	4.80
	1	2022	110	62,300	11	15.25	2.04	4.79
OandO	2	2013	18	562	21	3.55	1.26	2.75
	2	2014	20	555	22	-16.32	1.30	2.74
	2	2015	7	447	28	-5.25	0.85	2.65
	2	2016	6	187	27	0.39	0.78	2.27
	2	2017	2	132	12	1.90	0.30	2.12
	2	2018	8	137	17	2.68	0.90	2.14
	2	2019	9	300	18	1.38	0.95	2.48
	2	2020	14	275	17	-10.13	1.15	2.44
	2	2021	19	309	19	3.48	1.28	2.49
	2	2022	22	148	17	4.39	1.34	2.17
Seplat	3	2013	11,996	221	11	23	4.08	2.34
	3	2014	9,465	340	10	11	3.98	2.53
	3	2015	7,642	389	12	2	3.88	2.59
	3	2016	4,757	390	11	-6	3.68	2.59
	3	2017	8,418	405	12	13	3.93	2.61
	3	2018	6,487	451	11	6	3.81	2.65
	3	2019	8,991	499	11	8	3.95	2.70
	3	2020	1433891	534	12	-2	6.16	2.73
	3	2021	1268105	511	14	3	6.10	2.71
	3	2022	736739	613	12	3	5.87	2.79
Shell Plc	4	2013	848.39	92000	12	4.63	2.93	4.96
	4	2014	914.97	94000	12	4.1	2.96	4.97
	4	2015	824.43	90000	12	0.56	2.92	4.95
	4	2016	857.12	89000	11	1.1	2.93	4.95
	4	2017	572	83000	11	3.16	2.76	4.92
	4	2018	498	79000	12	5.75	2.70	4.90
	4	2019	466	83000	12	3.91	2.67	4.92
	4	2020	408	87000	13	-5.68	2.61	4.94
	4	2021	368	82000	12	5.04	2.57	4.91
	4	2022	334	87000	13	9.65	2.52	4.94
Total Energies	5	2013	485.3	98799	11	4.86	2.69	4.99
	5	2014	488.1	100307	10	1.85	2.69	5.00
	5	2015	464	96019	10	2.27	2.67	4.98
	5	2016	475	102168	11	2.68	2.68	5.01
	5	2017	454	98277	7	3.56	2.66	4.99
	5	2018	195	104460	7	4.46	2.29	5.02
	5	2019	194	107776	7	4.12	2.29	5.03
	5	2020	167	106472	10	1.44	2.22	5.03
	5	2021	133	107811	10	8.08	2.12	5.03
	5	2022	121	109150	10	5.24	2.08	5.04