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ENVIRONMENTAL REPORTING AND FINANCIAL PERFORMANCE OF OUOTED OIL AND GAS COMPANIES IN NIGERIA

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ABSTRACT:

The study sought to establish the relationship between environmental reporting and financial performance from 2002-2022 in quoted oil/gas companies in Nigeria. Environmental reporting served as the independent variable with study dimensions as Employee Health/Safety Cost (EHC), Waste Management Cost (WMC) and Environment Compliance/Protection Cost. (ECC)., whereas the dependent variable included financial performance with Return on Assets (ROA) as proxy. The study adopted the ex-post facto research design and used secondary data. The data spanned the period between 2002 and 2022. The data used for the analysis was the average annual figures and was obtained from annual publish statement of account and Nigeria Stock Exchange statistical data. The data was analysed using E-view-10 statistical software package. This study established positive and significant relationship between the variables studied. Management of oil/gas downstream companies should ensure that environmental reporting is strongly implemented since it improves the quality of financial reports. The research recommended as follows: shareholders of oil/gas downstream companies in Nigeria should provide all necessary resources needed to understand the import of environmental reporting on their organisation and train staff on changes in accounting framework. Government should empower the financial reporting council of Nigeria (FRCN) to monitor and enforce standards and training to smoothen the introduction of International Financial Reporting Standards. This process would enhance credible and qualitative financial statements, promote growth and development of capital market in Nigeria. The Financial Reporting Council in conjunction with various professional bodies should place more premium on continuing professional education and training. As much as possible, the professional accountancy bodies should align their continuing professional education requirements with environmental reporting guidelines.

KEYWORDS:

Environment compliance/protection cost. waste management cost. Employee health/safety cost. Return on assets.

Introduction

The oil and gas sector are one of the biggest cornerstones of many national economies, it is a crucial sector to the generation of structural change, productive jobs and a sustained economy (Herman, 2015). Supportive of the above assertion is the notion that highlights the financial performance of this sector. According to Naz (2016), the concept "performance" is a word that is coined from the original French word "parfounir"; which means to bring through, to carry out, to do or to bring forth. Khan, *et al*. (2015) asserts that performance is used to indicate work towards the attainment of a particular goal, which include the combination of human, fiscal and natural resources. Nirmal (2004) posits that performance not only indicates the demonstration of an action but also connotes the satisfactory monetary output of an organization.

Conceptually, Khan, *et al*. (2015) asserts that financial performance represents operation of an organization to carry out monetary actions. It principally reflects business sector outcomes and results that show overall financial health of the sector over a specific period of time (Naz, 2016). In a broader sense, financial performance is the process of measuring the results of a firm's policies and operations in monetary terms (Verma, 2018). It also refers to the degree to which financial objectives have been accomplished. Company's financial performance not only plays a role in increasing the market value of that specific organization but also results to growth of the whole industry which ultimately leads to the overall prosperity of the economy (Banafa, *et al.* 2015). Financial performance has been the primary concern of business practitioners as it relates to an organization's health and ultimate survival. It is also defined as the measurement of the results of a firm's strategies, policies and operations in monetary terms; the results reflected in return on assets and return on investments (Audax, 2018). Financial performance is also measured by profitability, financial efficiency and repayment capacity (McWilliams & Sugel, 2010). In addition, Charles, *et al*. (2018) posit that financial performance is the measurement of how well a firm use its assets from its primary mode of business to generate income. At microeconomic level, financial performance is the direct result of managing various economic resources and of their efficient use within operational, investment and financing activities (Burja, 2010). Pointedly, Singh and Pandey (2008) assessed financial performance with econometric indicators of current ratio, liquid ratio, receivables turnover ratio and working capital to total asset. Whereas, Rayan (2008) consider financial performance assessment expressed by earnings before interests and taxes (EBIT). Akintoye (2008) opines that, financial performance correlates with economic value added (EVA), return on equity (ROE), operating profit margin (OPM) and earnings per share (EPS). More so, recent literature from various countries have expressed the metrics of financial performance of companies as net operating profit (Raheman, *et al*. 2010; Dong & Su, 2010), return on total assets (Deloof, 2003; Padachi, 2006), return on invested capital and return on assets (Narware, 2010).

Consumers and investors are demonstrating increased interest in supporting responsible business practices and are demanding more information as to how companies address risks and opportunities relating to environmental issues (Kercher, 2006). According to Yakhou and Dorweiler(2003), Companies are expected to engage in environmental reporting to: (i) reassure consumers that they take their responsibilities seriously (ii) comply with national guidelines (iii) comply with financial reporting requirements (iv) express the company's environmental concerns and communicate them to a range of stakeholders. According to Mieseigha and Ihenyen (2014)., environmental cost information as it relates to strategic business decision is value relevant and they recommended that firms should constantly reposition their accounting system in order to provide information on environmental costs

so that the true costs in an organization can be ascertained and properly allocated while due attention should be paid to waste management costs, employee health and safety costs, investment financing costs, compliance and environmental protection costs and all environmental related costs since they influence strategic decision.

The environment provides all life support systems with air, water and land as well as the materials for fulfilling all developmental aspirations of man. As in most other countries of the world, the Nigerian environment today presents a grim litany of woes. The unwise use of the natural environment due to ignorance, poverty, overpopulation and greed, amongst others, has led to the degradation of the environment. These negative impacts are referred to as environmental degradation, which implies "abuse of the environment" due to improper resources management. In Nigeria, the environmental problems are characterized by soil erosion, high population pressure and increasing congestion in urban centres, which are further compounded by unplanned growth, and increasing problems of domestic and industrial wastes disposal and pollution. Human related activities since 1980s, especially in the development projects of the oil and gas sector, have led to the acceleration in the loss of the topsoil and deforestation; loss of habitat, species and biodiversity; and degradation of wetlands (NEST, 2002). Environmental degradation has resulted in the deterioration of Nigeria's urban and rural environmental quality, which is characterized by water shortages and floods that play a major role in the transmission of communicable diseases.

Urbanization is caused by high population growth rate and rural-urban migration. In Nigeria, it is characterized by city slums with serious environmental consequences. The problem is acute and exemplifies the inability of development measures to keep pace with the rate of population growth. Environmental conditions in cities have gradually deteriorated due to the rapid growth of the cities and the attendant inability of social services and infrastructures to keep pace with the rate of growth. The problem of the disposal of refuse is quite serious because of the rapid rate of generation of non-biodegradable materials, such as plastics. Inadequate storm drains, dumping of refuse in drainage lines and construction of houses close to or even on the natural water channels have been shown to be responsible in that order for the increasing cases of flood in the urban centres. Environment problems associated with the increasing growth of urban slums, including overcrowding in squalid housing conditions, poor quality or unavailability of basic infrastructures and social services, such as water sewage facilities, and even lack of access routes (NEST, 2002). This current study was designed to investigate the relationship between environmental reporting and financial performance of quoted oil and gas companies in Nigeria.

Literature Review

Conceptual Framework

Environmental reporting

Environmental reporting is a measure to achieve transparency about the respective performance of a firm and a means of communication to stakeholders including shareholders and investors, employees, clients and the committees which such reports are useful tools for both the reporting firm and stakeholders and are clearly an indicator of the importance of environmental issues in a firm (Weber, 2013). The issue for drafting the environmental report is to determine the scope of the report, that is, to determine which part of the business has to report on. This could include geographical scope (operations in selected area(s) but not all geographical locations that a company operates) or by business.

The disclosure of EI is based on the document analysis as it is been promoted by Bowen (2009). Several studies show concerns about sustainability reporting, such as: Gray (2002, 2006), Gray & Collison (2002), Sahay (2004), Byrch, *et al.* (2007). Although, ED is already a widespread tendency in large and small and medium firms, it does not address these issues on their AR (Sahay, 2004; Chan & Welford, 2005). Indeed, it constitutes a challenge to firms whose current environmental focus are presented on monetary terms (Lamberton, 2005; Cho & Patten, 2007). Another example is the corporate AR that, usually, disclose their "good" business practices that ensure the sustainability of the business in order to contribute to the maximization of shareholder value, but nothing related to the "bad" business practices of the environment (Chan & Welford, 2005).

Environment disclosure is viewed in different perspectives, but channelled towards the same direction. Zakimi and Hamid, (2004) posit that environmental disclosure is used by firms to express to the public cost implications of their activities which has impacts on the society. According to Lodhia (2006), corporate environmental disclosure is defined as a reporting process by which firms discloses environmental information in their annual financial statements and accounts in order to communicate their financial positions to the respective stakeholders for the purpose of providing evidence of stewardship report. Berthelot, Cormier and Magnan (2003) is of the view that environmental disclosure is the disclosures that is associated with firm's past, present and future environmental management decisions, activities and performance. Pahuja (2009) describes environmental disclosure as firms which are conscious to report more environmental information on the annual reports when compared to firms which do not. Thus, these firms may have more propensities for the disclosure of environmental information on the financial statements more than their environmental performance. These corporate entities also face greater pressure from stakeholders within and outside the corporation.

Dimensions of environmental reporting

Employee health and safety cost: Workplace health and safety raises the question of economic costs. The economic cost of occupational health and safety to the organisation is double-edged. On the one hand, health and safety measures which protect employees from the hazards of the workplace can conflict with management's objective of containing production costs. On the other hand, effective health and safety policies can improve the performance of employees and the organisation, by reducing costs associated with accidents, disabilities, absenteeism, or illness. There are also indirect costs associated with work-related accidents. The indirect costs include overtime payments necessary to make up for lost production, cost of retaining a replacement employee, a wage cost for the time spent by human resource manager personnel recruiting, selecting and training the new employee and, in less typical cases, the cost associated with loss of revenue on orders cancelled or lost if the accident causes a net long-term reduction on sales as well as the negative effect on morale in workers which may also lead to possible reduction in the quality of work (Rousseau, 2008).

Waste management cost: The collection, transport, treatment, and disposal of solid wastes, particularly wastes generated in medium and large urban centres, have become a relatively difficult problem to solve for those responsible for their management. The problem is even more acute in economically developing countries, where financial, human, and other critical resources generally are scarce (UNEP, 2005). Nigeria as one of the developing countries is not left out, the Nigerian cities are witnessing high rate of environmental deterioration and are rated among urban areas with the lowest liveability index in the world. Although studies have identified various environmental problems in Nigeria, little attention has been given to their implications for sustainable development in literatures

(Daramola and Ibem, 2010). The level of environmental management awareness in Nigeria is still very low, yet, it is the knowledge of environmental management techniques that can guarantee life sustainability in Nigeria (Uwadiegwu and Iyi, 2015). Against this backdrop, Odunjo (2013) maintains that sustainable environmental management is far from being achieved in Nigeria because the activities of man still degrade the environment. The country can only be sustainably developed if it can pay attention to environmental sanitation and conservation. Waste according to Sridhar, (2017) is defined as any matter which has no further use, based on the composition, for instance, garbage, trash, junks, domestics or ashes. It may be domestic, non-hazardous, hazardous or infectious. On another literature, Polprasert (2006) classified solid wastes generated from human activities include those from residential, commercial, street sweepings, institutional, and industrial categories.

Environment compliance and protection cost: Environmental compliance costs consist of environmental measures and environmental losses. They include cleanup costs, costs of recycling materials or conserving energy, closure costs, capital expenditure and development expenditure. These costs are incurred in preventing, reducing or repairing damage to the environment and conserving resources. However, environmental losses are costs, which bring no benefits to the business, such as, fines, penalties, compensation, and disposal losses relating to assets which have to be scrapped or abandoned because they damage the environment (Noe, *et al*. 2006). Environmental compliance costs are the environmental damage, an entity costs to the environment and its users as a result of its operations. There is also the general concern that environmental cost reduces operating flexibility, slow productivity of companies. Hansen and Mowen (2000) defined environmental compliance costs as costs associated with the creation, detection, remediation and prevention of environmental degradation. The purpose is to recognize and seek to mitigate the negative environmental effects of activities and system. The aim is to provide decision makers with the information that enable the organization to reduce costs and business risks and to add value (Ibemgbor, 2011). Environmental compliance costs form a part of waste. Waste is anything that cannot be turned into a marketable product and is therefore indicative of production inefficiency (United Nations Division for Sustainable Development-UNDFSD, 2001).

Financial performance

Osmani and Deari (2016) state that financial statements present database for accounting information required by users for interpretational decision making. The word “performance” is said to have originated from the old French word “parfournir” whose meaning is to bring through, to carry out, to do or to bring forth (Ijaz, *et al.* 2016). Performance is an act of implementing, achieving, and fulfilling of the given tasks that needs to be measured against defined sets of precision, money, fullness and timing. In the finance discipline, it refers to the measurements of the company’s success compliance and financial position. Ijaz, Naz and Naqvi (2016) further posit that financial performance is an extent to which a company financial health over a period of time is measured. The financial performance of a firm emphasizes on variables related directly to financial report (Omondi & Mutun, 2013).

Measure of financial performance

Return on asset (ROA)

An important measure of profitability is return on assets (ROA) which explains the overall effectiveness of management in generating profits with its available assets (Mogonta & Porndono, 2016). Return on assets measures a company’s success in using assets to earn income (Horngren, *et*

al. 2009). The importance of return on assets as a measure of firms' performance has become very understandable. It is used as the general-purpose financial ratio that measures the relationship of profit earned to the investment in assets required to earn that profit (Siminua, *et al.* 2012). The return on asset per cent is a baseline that can be used to measure the profit contribution required from investments. As such it identifies the ratio of return needed to at least maintain current performance that can be used to establish a hurdle rate that investments must meet for approval (Lindo, 2008). According to Sofyan (2007), return on assets is a ratio that describes the assets measured by sales volume. The greater this ratio, the better for the company as investors will buy more shares of the company. Lyn and Aileen (2008) states that return on asset shows the number of profits earned relative to the level of investment in total assets.

To calculate return on assets, the following formula can be used:

$$\text{Return on Assets (ROA)} = \frac{Net\ Profit}{Total\ Assets} X\ 100$$

The higher this ratio means the company is more effective in utilizing the assets to generate net income. Thus, a higher ROA means the company's performance is more effective because the rate of return will be greater. This further increases the company's attractiveness to investors (Saragih, 2018). The use of ROA as an accounting measure has not been limited to foreign studies only as it has proved to be a very effective means of determining financial performance of business entities (Nkomani, 2013). Return on assets is also an indicator of how profitable a company is relative to its total assets.

Theoretical Foundation

Legitimacy theory: Legitimacy theory as one of the most discussed theories explains the phenomenon of voluntary social and environmental disclosures in organisational communication and explains that corporate bodies seek to gain, maintain or repair their legitimacy by using social and environmental reporting. Legitimacy theory as defined by Dowling and Pfeffer (1975) is derived from the concept of organisational legitimacy, is a condition or status which exists when an entity's value system is congruent with the value system of the larger social system of which the entity is a part. When a disparity, actual or potential, exists between the two value systems, there is a threat to the entity's legitimacy. A company would voluntarily report on activities if management perceived that those activities were expected by the communities in which it operates. Legitimacy theory relies on the notion that there is a 'social contract' between a company and the society in which it operates (Mahmud, 2019). Legitimacy is a key resource for the survival and development of an organization, and environmental performance has become an important aspect of the legitimacy of modern firms. Environmental information disclosure enables organizations to maintain legitimacy without changing economic models (Neu, *et al*. 2008).

Legitimacy theory remains one of the most discussed theories in explaining the phenomenon of voluntary social and environmental disclosures in corporate communication and may provide useful insights for corporate social and environmental disclosures with a number of gaps yet to be addressed, such as the development of a general framework of legitimacy theory (Hassan & Mousa, 2015).

The world of legitimacy (organizational legitimacy) is perceived by various authors from different angles, over the years. Some has tried to rationalize it by the idea of social attitude and values; whereas, others have described it from the viewpoints of justice, legislation and environmental care.

Interestingly, some investigators have gone as far as to the angle of cultural aspects and organizational resource to denote organizational legitimacy.

The most fundamental distinction in analysing legitimacy in relation to political orders is between its normative and sociological connotations (Black, 2008). While the former refers to a fundamental normative validity of justifying the exercise of authority, the latter concerns the societal acceptance of expressions of authority (Zürn, 2004). When processes of governance enter the scene and aspire to gain authority, the ability to outline normative arguments that provide a coherent justification for that authority is fundamental for a society that wants to be reflective of its value foundations. The societal acceptance of the authority of governance can be seen as a normative requirement linked to theories of democracy, but it is also important for the more widespread cooperation by citizens to achieve its objectives.

There are multiple categorizations of sources of legitimacy in the literature, including Scharf's (2009) distinction between input and output legitimacy as one of the more well-known ones. Input legitimacy in connotation is about legitimacy gained from the process of government, government by the people, while output legitimacy is gained from the result, government for the people (Scharf, 2009). Scholars have also identified more fine-grained categorizations that build on this basic distinction and include a number of subcomponents of legitimacy (Bodansky, 2009 and Karlsson-Vinkhuyzen *et al*. 2009 for a discussion of normative legitimacy). It is particularly valuable to consider some of these subcomponents of legitimacy in governance contexts.

Empirical Review

Falope, *et al.* (2019) examined environmental cost disclosure and corporate performance of quoted construction firms in Nigeria Ex-post facto ROA Environmental pollution control cost Environmental protection cost Environmental cost resource recycling. The findings showed that environmental pollution prevention cost, environmental protection cost and environmental recycling disclosure have effects on return on assets of quoted construction firms in Nigeria.

Ikpor, *et al.* (2019) studied environmental accounting and sustainable financial performance: evidence from the Nigerian petroleum industry Ex-post facto profitability EOPEX EOPEX EXAPEX. The finding suggested that environmental operating costs and environmental prevention costs have significant and negative effect on the performance of petroleum firms in Nigeria. However, the study found important differences in the correlates of firm's capital expenditure on sustainable financial performance. The findings of this study therefore have important implications for policy.

Akparhuere (2019) examined the effectiveness of environment reporting in annual reports using a comparative analysis of reporting practices of listed firms in Nigeria. A total of 84 respondents were drawn from the population. Both primary and secondary data were used in the study. Primary Data were collected using questionnaires drawn using the Likert's Scale with five points ranging from very great extent to no extent, while secondary data were sourced from already published materials. Hypotheses were formulated and data were analyzed using SPSS Software and other Descriptive statistical tools such as; percentages and tables. The result of the study showed that accounting practices had a significant relationship with performance of Oil and Gas Companies, particularly, the Return on Assets and Return on Capital Employed.

Onyekwelu, *et al.* (2018) examined the effect of firms' growth indicators on operational performance of selected firms in Nigeria. Firm size and profitability were used as proxies for operational performance while return on assets was the measure of financial performance. The study adopted the

Ex-post facto research design. Using secondary data source and multiple regressions for analysis, the results show that firm size and profitability have significant negative and insignificant effect on return on assets.

Eke (2018) examined the adoption of International Financial Reporting Standards (IFRS) in Nigeria with particular reference to the benefits and challenges of adopting IFRS in Nigeria. Primary data was used under a descriptive research analysis, the research findings showed that with adequate commitment from all and sundry, IFRS implementation in Nigeria is a possibility.Matar and Eneizan (2018) investigated the factors affecting the financial performance of the Jordanian manufacturing industrial firms. Secondary data was collected from the Amman Stock Exchange annual publication for the period 2005-2015. The E-views regression analysis revealed that the variables of liquidity, profitability and revenues are positively related with return on assets.

Nwaiwu and Oluka (2018) examined the effect of environmental cost and financial performance measures of quoted oil and gas companies in Nigeria. Ex post facto research design was used for the study. The study covered 2011 to 2015. Environmental cost was proxies with waste management cost, environmental taxes and fines, laws and regulations, abatement cost. The data collected was analyzed using Pearson product moment correlation coefficient and multiple regression analysis with the aid of special package for social sciences version 24.0. The study shows significant positive relationship between environmental cost disclosure and financial performance measures of oil companies in Nigeria.

Obi and Anaege (2017) examined the effect of IFRS adoption on the key financial performance indices of banks quoted on the Nigerian Stock Exchange. Secondary data were obtained from annual reports of listed banks from 2008-2011 (that is pre and post IFRS period) with Ordinary Least Square (OLS) regression analysis, the results revealed that there is no significant difference in the return on assets and capital adequacy ratio of quoted banks after the adoption of IFRS while there is a significant difference in quoted banks net book value and credit risk after the adoption of IFRS.

Methodology

Research Design: The Ex-post facto research design was employed in this study. This type of research design is suitable where the subject(s) of study is already in existence. The use of this type of research design was justified since it is a realistic approach to behavioural science research which is devoid of experimentation and manipulation of the variables.

Population of the Study: The target population for this study comprised of all quoted oil and gas companies that currently trade shares in the Nigerian Stock Exchange (NSE). However, available information from the Nigerian Stock Exchange (NSE) office showed that the following seven (7) oil and gas companies are currently quoted and legally permitted by the Securities and Exchange Commission to issue securities in Nigeria.

Sampling Method: The census sampling approach was employed on the chosen sampling frame of seven (7) quoted down-stream oil and gas companies in Nigeria. The suitability of this method for this research was to give every subject in this finite population an equal chance of appearing in the selection.

Sampling Procedure: Using the census sampling method oil and gas companies that was selected under this method were those that have fulfilled the cumulative pre-tax profits from continuing operations of at least 2 years and possesses accessible financial records.

Data Collection Method: The secondary source of data collection method was utilised for this research. Available sources of secondary data were be the published annual financial statements of the twelve quoted oil and gas companies in Nigeria that are under investigation for various years including 2002 to 2022. The generated secondary data were treated as polled or panel data. Whereas, data for the moderator or industry policy variable was sourced using the dummy method.

Operational Measures of Variables This research investigated three variables, namely; predictor variable, criterion variable and the moderator or industry policy variable.

Environmental reporting (EVR) was used as the predictor variable. The three dimensions environmental reporting that were applied in this study are: employee health cost (EHC), waste management cost (WMC) and environment compliance cost (ECC).

Employee health and safety cost (EHC): the natural logarithm for employee health and safety cost as reported pursuant to published financial statement for the years under investigation was used as the econometric measure.

Waste management cost (WMC): the natural logarithm for pollution control cost as published in the annual financial statements of quoted downstream oil and gas companies in Nigeria between 2002 to 2022 was used as the econometric measure.

Environment compliance/protection cost (ECC): the natural logarithm for environmental fines and litigation costs as published in the financial statement of 2002 to 2022 for oil and gas downstream companies in Nigeria was used as the econometric measure.

Financial performance (FCP) was used as the criterion variable. The two measures of financial performance that were applied in this study include, return, on assets (ROA) and return on equity (ROE). The use of these, two are justified as financial performance measures for this study because their sum produces a return on investment; the blanket measure of financial performance.

Return on asset (ROA): for this research, return on asset was scaled as the percentage net profit divided by total assets.

Return on assets (ROA) = $\frac{Net\ Profit}{Total\ Assets} X\ 100$

Thus, the values for return on assets of quoted oil and gas companies in Nigeria for 2002 to 2022 will be obtained from the published annual financial statements of the firms under investigation. However, past empirical works that gave credence to the use of return on assets as a measure of financial performance were Purnamasari (2015)., Idawat and Wahyudi (2015), Warrad (2015), Saragih (2018), Siminica, *et al.* (2012).

Model Specification

The model specified for this study was carried out in line with the multiple and partial regressions. This model is imperative as the research pursues to establish the relationship between environmental reporting and financial performance of quoted oil and gas companies in Nigeria. Therefore, the functional, mathematical and econometric model specifications for this research are as follows:

Functional Form

FCP = f(EHC, WMC, ECC) -- - - -(1)

Using equation 1, gives;

Mathematical Form

$\wedge \quad \wedge \quad \wedge \quad \wedge$

FCP= f(EHC, WMC, ECC) - - - - - (2)

Using equation 4 gives;

Econometric Form

$FCP = \mu_0 + \mu_1 EHC + \mu_2 WMC + \mu_3 ECC + \ldots.. + \mu_{1,t}$ - (3)

Econometric model for moderator regression

$FCP = \beta_0 + \beta_1 EVR + \beta_2 IFRS + \beta_3 EVR^{*} IFRS + \text{----+} \mu_{1,t}$- - - - - - - (4)

From equations 3 and 4, it is expected a priori that $\mu_1, \mu_2, \mu_3, \beta_1, \beta_2, \beta_3 > 0$.

Where:

FCP = Financial performance

EHC = Employee health and safety cost

WMC = waste management cost

ECC = Environment compliance and protection cost

μ_0, β_0 = Regression constant

$\mu_1, \mu_2, \mu_3, \beta_1, \beta_2, \beta_3$ = Regression coefficient

$\mu_{1,t}$ = Stochastic error term

EVR= Environmental reporting

***** **=** Statistical interaction symbol

Data Analysis Techniques

Three types of data analytical techniques were used in this research namely; descriptive data analysis, inferential data analysis and test for causality.

Descriptive data analysis

This involves a univariate analysis which was used to describe the distribution of the variables of study in relation to the companies under investigation. Descriptive data for the independent and

dependent variables were analysed using the mean scores, frequency distribution and standard deviation.

Inferential data analysis

This falls within the domain of statistical testing. It involves the bivariate and multivariate null hypotheses testing at $\alpha = 0.05$ level of significance. The multiple regression analysis was employed to test the composite hypotheses. Pointedly, these analyses were carried out using the Ordinary Least Square (OLS) method of E-view 10.0 version statistical software.

Test of causality

In order to strengthen the analysis, Wiener Granger Causality was also employed. This was done because regression analysis alone deals with the strength of dependence of one variable upon the other, it does not imply relationship.

Results and Analysis

Descriptive Statistics (Diagnostic Results)

Table 1: Results of descriptive statistics.

Residual diagnostic result from 2002-2022

	ROA	ROE	EHC	WMC	ECC
Mean	23.10649	9.809985	12.67904	13862022	900245.2
Median	16.37000	6.890000	6.390000	311642.0	73942.00
Maximum	228.8300	68.99000	1284.000	1.11E+09	99274954
Minimum	0.000000	0.000000	0.020000	0.000000	0.000000
Std. Dev.	22.56727	9.831134	61.90018	85599999	5558708.
Skewness	2.571355	2.260637	17.60525	10.08966	12.99889
Kurtosis	15.90145	10.28575	332.8846	111.9488	196.3358
Jarque-Bera	5200.126	1982.086	2967132.	330968.5	1025889.
Probability	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	14949.90	6347.060	8203.340	8.97E+09	5.82E+08
Sum Sq. Dev.	328995.9	62436.67	2475235.	4.73E+18	2.00E+16
Observations	140	140	140	140	140

Source: E-view 10 Output (Authors Computation).

Results from the descriptive analysis disclosed that WMC had the highest mean of 13862022 and a maximum value of 1.11E+09 respectively. While ROE showed a minimum value of 9.809985. The standard deviation which describes risk level showed that WMC had the highest risk of 85599999.

This value implied that WMC attracts more cost than other variables of study. Another variable with high risk is ECC with 5558708 standard deviations. This value signified that oil and gas companies in Nigeria face more challenges to contain environment compliance/protection.

Normality Test (Residual Diagnostics)

The normality testwas carried out in this study and Jarque-Bera normality test was employed.

Normality Test Output (Jarque-Bera)

Using symmetric position of the return of asset to forecast the proxies

Normality Test

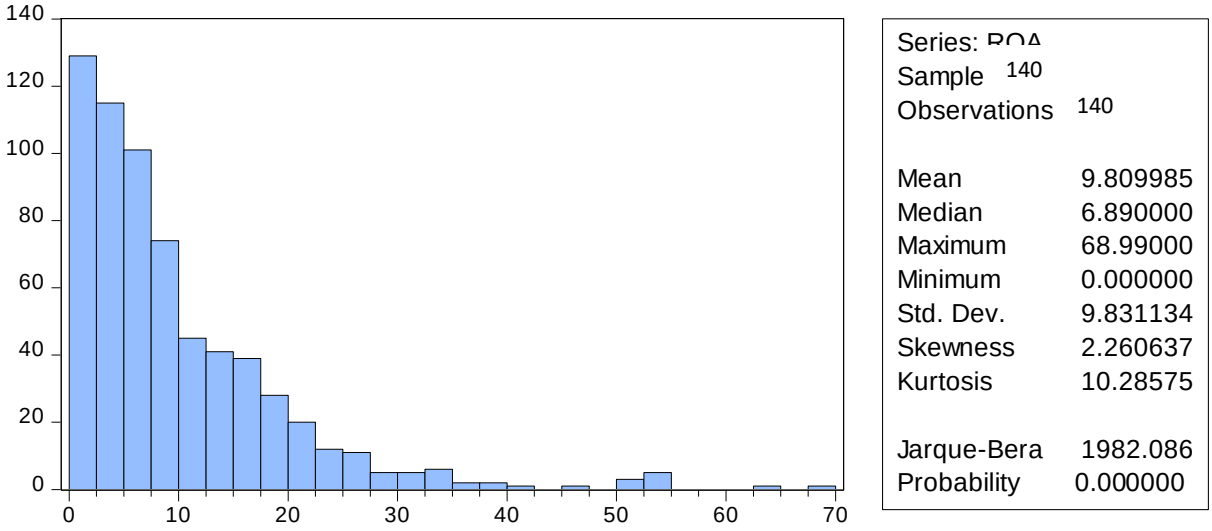

Figure 1: JB test of normality

Source: E-view 10 Output (Authors Computation).

The Jarque-Bera (JB) test statistic was used to determine whether macro-economic variables follow the normal probability distribution. The JB test of normality is a large-sample or asymptotic test that computes kurtosis and the skewness measures and uses the following test statistic: Where n = sample size, S = skewness coefficient, and K = kurtosis coefficient. For a normally distributed variable, S = 0 and K = 3. Therefore, the JB test of normality is a test of the joint hypothesis that S and K are 0 and 3 respectively. All the variables are normally distributed since the p-value is proxies variable is 0.0000, while intervening variable is 0.000159 whose skewness coefficient is close to zero (1.635127/1.910446) and kurtosis coefficient of 3.982643/5.576011. This indicate that the explanatory (independent) variables are well distributed than the response (dependent) variables, thus both are normally distributed.

Multiple Regressions (Panel Ordinary Least Square)

The multiple regression analysis was carried out using the Panel Ordinary Least Square regression tool, as it is the best unbiased linear regression estimator.

Hypothesis 1

$H0_1$: there is no significant relationship between employee health/safety cost and return on assets.

Table 2: Panel Ordinary Least Square Output Over the period of 2002 to 2022.

Dependent Variable: ROA

Method: Panel Least Squares

Date: 11/30/23 Time: 23:13

Sample: 2002 2022

Periods included: 96

Cross-sections included: 96

Total panel (balanced) observations: 140

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.34742	0.653693	15.82917	0.0000
EHC	4.081209	5.330009	2.765831	0.0441
WMC	2.342108	8.820008	0.265446	0.0208
ECC	-4.102108	1.523207	-0.270019	0.0172
IFRS	-1.138141	0.839971	-1.354977	0.0460

R-squared	0.580213	Mean dependent var	7670.996
Adjusted R-squared	0.236590	S.D. dependent var	12049.34
S.E. of regression	10527.91	Akaike info criterion	21.44110
Sum squared resid	3.661109	Schwarz criterion	21.57306
Log likelihood	-382.9398	Hannan-Quinn criter.	21.48716
F-statistic	6.423459	Durbin-Watson stat	1.428219
Prob(F-statistic)	0.004404		

The E-view output above disclosed a positive relationship between employee health/safety cost and return on assets with a positive constant coefficient of 11.34742. The coefficient also showed that as employee health/safety cost increased by 4.082009 return on assets also increased by a constant coefficient of 11.34742. A regression square, R^2=0.58 showed the fitness of the overall model. The regression square also disclosed that 58% change in return on assets was caused by employee

health/safety cost. The remaining 42% could be attributed to other factors not captured in the model but covered by the error or stochastic term.

With the critical value approach of +1.96 and -1.96 and applying the decision rule with t-statistic 2.765831 greater than +1.96 at 0.05 alpha for a 2-tailed test showed that $H0_1$ was significant and hence the null hypothesis was rejected.

Hypothesis 2

$H0_2$: there is no significant relationship between waste management cost and return on assets.

Table 3: Panel Ordinary Least Square Output Over the period of 2002 to 2022.

Dependent Variable: ROA

Method: Panel Least Squares

Date: 11/30/23 Time: 23:13

Sample: 2002 2022

Periods included: 96

Cross-sections included: 96

Total panel (balanced) observations: 140

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.134742	0.433693	15.82917	0.0000
EHC	5.181209	5.331209	2.215831	0.0241
WMC	1.242108	5.820002	0.265446	0.0108
ECC	-2.102108	2.523207	-0.270019	0.0132
IFRS	-1.138141	0.239971	-1.354977	0.0140

R-squared	0.580213	Mean dependent var	7670.996
Adjusted R-squared	0.236590	S.D. dependent var	12049.34
S.E. of regression	10527.91	Akaike info criterion	21.44110
Sum squared resid	3.661109	Schwarz criterion	21.57306
Log likelihood	-382.9398	Hannan-Quinn criter.	21.48716
F-statistic	6.023459	Durbin-Watson stat	1.428219
Prob(F-statistic)	0.014404		

The E-view output above disclosed a positive relationship between waste management cost and return on assets with a positive constant coefficient of 3.134742. The coefficient also showed that as waste management cost increased by 1.242108 return on assets also increased by a constant coefficient of 3.134742. A regression square, R^2=0.58 showed the fitness of the overall model. The regression square also disclosed that 58% change in return on assets was caused by waste management cost. The remaining 42% could be attributed to other factors not captured in the model but covered by the error or stochastic term.

With the critical value approach of +1.96 and -1.96 and applying the decision rule with t-statistic 0.265446 greater than -1.96 at 0.05 alpha for a 2-tailed test showed that $H0_2$ was significant and hence the null hypothesis was rejected.

Hypothesis 3

$H0_3$: there is no significant relationship between environment compliance/protection cost and return on assets.

Table 4: Panel Ordinary Least Square Output Over the period of 2002 to 2022.

Dependent Variable: ROA

Method: Panel Least Squares

Date: 11/30/23 Time: 23:13

Sample: 2002 2022

Periods included: 96

Cross-sections included: 96

Total panel (balanced) observations: 140

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.014341	0.233693	15.82917	0.0000
EHC	3.082109	3.301209	2.215831	0.0141
WMC	6.122106	6.320002	0.265446	0.0208
ECC	2.202107	2.823207	-0.240019	0.0332
IFRS	1.138141	0.139972	-1.354977	0.0240

R-squared	0.500213	Mean dependent var	5670.996
Adjusted R-squared	0.136590	S.D. dependent var	22049.34
S.E. of regression	11527.91	Akaike info criterion	11.44110

Sum squared resid	3.561102	Schwarz criterion	11.57306
Log likelihood	-382.2393	Hannan-Quinn criter.	31.48716
F-statistic	6.023459	Durbin-Watson stat	1.528219
Prob(F-statistic)	0.013404		

The E-view output above disclosed a positive relationship between environment compliance/protection cost and return on assets with a positive constant coefficient of 6.014341. The coefficient also showed that as environment compliance/protection cost increased by 2.202107 return on assets also increased by a constant coefficient of 6.014341. A regression square, R^2 =0.51 showed the fitness of the overall model. The regression square also disclosed that 51% change in return on assets was caused by environment compliance/protection cost. The remaining 49% could be attributed to other factors not captured in the model but covered by the error or stochastic term.

With the critical value approach of +1.96 and -1.96 and applying the decision rule with t-statistic -0.240019greater than -1.96 at 0.05 alpha for a 2-tailed test showed that $H0_3$ was significant and hence the null hypothesis was rejected.

Discussion of Findings

The first hypothesis stated that there is no significant relationship between employee health/safety cost and return on assets of quoted oil and gas companies in Nigeria. From the findings of this research, the null hypothesis was rejected, hence there was a positive and significant relationship between the variables of study. This result signified that an increase in employee health/protection cost could lead to a proportionate increase in return on assets. Similar to this finding, Falope, *et al*. (2019), Ralhman, *et al*. (2014) in their studies disclosed a positive and significant relationship.

The second hypothesis stated that there is no significant relationship between waste management cost and return on assets of quoted oil and gas companies in Nigeria. However, the outcome this hypothesis showed a positive and significant relationship between the variables under investigation. This finding signified that waste management cost could have a significant and positive influence in return on assets especially for quoted oil/gas companies in Nigeria within the period under review. That is one percent increase in waste management cost could lead to similar increase in return on assets. This result was supported by Nwaiwu & Oluka (2018), Acti, *et al.* (2013).

The third hypothesis opined that there is no significant relationship between environment compliance/protection cost and returnon assets of quoted oil/gas companies in Nigeria. Thus, the result of this hypothesis revealed a positive and significant relationship between environment compliance/protection cost and return on assets in line with a study by Galamet, *et al.* (2011).

Conclusion

This study examined the relationship between environmental reporting and financial performance of quoted oil/gas companies in Nigeria for the period 2002–2022. The study investigated the long run and short run relationship between the variables by using Johansen Co-integration and Error Correction Model (ECM) approach. The empirical resultsdisclosed that environmental reporting

proxies are all important determinants of financial performancein terms of return on assets both in the short run and the long run as these variables have randomness and fixed effect. Thus, the study concludes that the independent variable with the proxies have positive relationship in the short-run as these variables are found to be statistically significant in predicting the financial performance. This study concludes that there is a significant relationship between the predictor variables and criterion variable in the long run.

Recommendations

Base on the findings of this study, the following recommendations are advanced:

Policy Recommendation

On the basis of the foregoing, the study hereby recommended that the OPEC membership should create an enabling environment to encourage oil/gas downstream companies to adopt environmental reporting practices for smooth operations, so as to attract foreign direct investments for the enhancement of economy status of Nigeria. This process would yield more genuine annual reports that would provide a basis for true interpretation.

1. Management of oil/gas downstream companies should ensure that environmental reporting is strongly implemented since it improves the quality of financial reports.

2. Shareholders of oil/gas downstream companies in Nigeria should provide all necessary resources needed to understand the import of environmental reporting on their organisation and train staff on changes in accounting framework

3. Government should empower the financial reporting council of Nigeria (FRCN) to monitor and enforce standards and training to smoothen the introduction of International Financial Reporting Standards. This process would enhance credible and qualitative financial statements, promote growth and development of capital market in Nigeria.

References

Abu Rahma, S.S. (2007). *Basel convention.* Research presented to the Faculty of Commerce, Islamic University of Gaza.

Abu-shanab, S.A. (2008). *The impact of returns and risks on share prices:* An applied study on industrial corporations listed at Amman stock exchange.

ACA (1948). *English companies act.* Retrieved from www.legislation.gov.uk/ukpga/1948/38/pdfs/ukpga_19480038_en.pdf.

Acheampong, Y.J. (2000). International variation in return on equity in the food and beverage industries. *Journal of Agricultural and Applied Economics, 32*(2), 383-392.

Adams, J. (1996). Principals and agents, colonialists and company men: the decay of colonial control in the Dutch East Indies. *American Sociological Review, 11*(1), 12-28.

Adebayo, A.G (2016). Accounting for depreciation: empirical analysis of the application of depreciation methods in small and medium enterprises in Nigeria. *Journal of Accountingand Financial Management, 2*(6),1-17

Agarwal, S. & Goel, R. (2014). A literature review of agency theory. *International Journal of Research, 3*(5), 51-52.

Aguolu, O. (2006). Ethics and integrity in the accounting profession. *Nigerian Accountants, 41*(3), 54-59.

Ahsan, A.M. (2012). Can return on equity be used to predict portfolio performance? *Economics Management and Financial Markets, 7*(2), 132-148.

Akintoye, I.R. (2008). Sensitivity of performance to capital structure. *European Journal of Social Sciences, 7*(1), 1-18.

Bhattacchargee, S. & Hossain, M.S. (2010). *Determinants of financial reporting outcomes following IFRS adoption: Implementations for Bangladesh.* Retrieved from https://www.icab.org.bd/journal/61.pdf

Bosse, D.A. & Philips, R.A. (2016). Agency theory and bounded self-interest. *Academy of Management Review41*(2), 276-297.

Bowman, E. & Haire, M. (1975). A strategic positive toward corporate social responsibility. *California Management Review, 18*(2), 49-58.

Brigham, E.F. & Houston, J.F. (2007). *Fundamentals of financial management,* 11th Edition, Thomson South-Western, USA.

Burja, V. (2010). *The analysis of the financial statements of companies,* Aeternitas Publishing, Alba Iulia.

Cai, F. & Wong, H. (2010). The effects of IFRS adoption on global capital market integration. *International Business and Economic Research Journal, 9*(10), 25-34.

Cekrezi, A. (2015). Determinants of financial performance of the insurance companies: A case of Albania. *International Journal of Economics, Commerce and Management, 3*(4), 1-9.

Charles, D., Ahmed, M.N. & Joshua, O. (2018). Effect of firm characteristics on profitability of listed consumer goods companies in Nigeria. *Journal of Accounting, Finance and Auditing Studies, 4*(2), 14-31.

Charles, M (1977). *Rowland and Magee's accounting,* Gee and Co. Publishing Ltd. London.

Cheng, M. & Leung, N.W. (2014). *Ownership structure, ongoing related party transactions and corporate performance: evidence from Chinese listed firms.* Retrieved f.rom https://www.virtusinterpriss.org/IMG/pdf/10-22495cocv11i2c5p2.pdf .

Chua, S.R., Chong, C.T., Dy, C.S. & Villavicencio, A.M.E. (2016).The relationship of corporate financial performance and innovation and manufacturing. *Industries, Young Economists' Perspective, 7*(3), 1-4.

Journal of Economic Cooperation, 25(4), 105.120.

Eisenhardt, K.M. (1989). Agency theory: An assessment and review. *Academy of Management Review, 14*(8), 57-74.

Eitokpa, O.H. (2015). *Determinants of financial performance of listed foods and beverages company in Nigeria*. Retrieved from https:// kubanni.abu.edu.ng/ispui/bitstream/12345678061vvDETERMINANTS%20OF%20FINANCIAL%20PERFORMANCE%20OF%20LISTED%OFFOOD%20.pdf.

Eke, G.O. (2018). Adoption of international financial reporting standards in Nigeria: A conceptual appraisal. *European Journal of Accounting, Auditing and Finance Research, 6*(9), 8-22.

Elbadry, A., Gounopoulos, D. & Skinner, F. (2010). *Governance quality and information alignment.* Retrieved from http://www.mfsociety.org/

Elias, A.A. & Cavana, R.Y. (2003). *Stakeholder analysis. for systems thinking and modelling, school of business and /public management.* Victoria University of Wellington, New Zealand.

Eliot, B. & Elliot, J. (2004). *Financial accounting and reporting*, 8thed, Harlow Prentice Hall and Financial Times.

Francis, J., Laffond, R., Olsson, P.M. & Schipper, K. (2004). Cost of equity and earning attributes. *The Accounting Review, 79*(4), 967-1010.

Freeman, E. (1984). *Strategic management: A stakeholder approach,* Boston, Pitman Publishing.

Freeman, E., Harrison, J., Hicks, A., Parmar, B. & Colle, S. (2010). *Stakeholder theory: The state of the art,* Cambridge University Press, New York.

Freeman, E.R., Wicks, A.C. & Parmar, B. (2004). Stakeholder theory and the corporate objective revised. *Organization Science, 15*(3), 364-369.

Freeman, R. & Mcvea, J (2001). A stakeholder approach to strategic management. *SSRN Electronic Journal. Working Paper No.* 01-02. 10.2139/ssrn.263511

Freeman, R.E. (1994). The politics of stakeholder theory, some future directions. Business Ethics Quarterly, 4(4), 409-421

Gadawska, J. (2011). Effects of provisions on the valuation of a company. *Equilibrium Journal, 6*(2), 110-121.

Ganga, M., Kalaiselvan, P. & Suriya, R. (2015). Evaluation of financial performance. *International Journal of Scientific and Research Publications, 5*(4), 1-7.

Heikal, M., Khaddafi, M. & Umamah, A. (2015). Influence analysis of return on assets, return on equity, net profit margin, debt to equity ratio and current ratio against corporate profit growth in automotive Indonesia stock exchange. *International Journal of Academic Research in Business and Social Sciences, 4*(12), 101-114.

Herbert, W.E., Tsegba, I.N., Ohanele, A.C. & Anyahara, L.O. (2013). Adoption of IFRS: Insights from Nigerian academics and practitioners. *Research Journal of Finance and Accounting, 4*(6), 7-28.

Hermen, E. (2015). The importance of manufacturing sector in the Romanian economy.*9th International Conference of Interdisciplinarity in Engineering*, *22*(4), 976-983.

Hill, L.W.L. & Jones, T.M. (1992). Stakeholder agency theory. *Journal of Management Studies, 29*(6), 131-154.

Horngren, C.T., Harvison, W.T. & Ohier, M.S. (2009). *Accounting upper saddle river.*

Idawati, W. & Wahyudi, A. (2015). Effect of earnings per share and return on assets against share price on real missing company listed in Indonesia stock exchange. *Journal of Resources Development and Management, 7*(2), 79-91.

Kijewska, A. (2016). Determinants of the return on equity ratio (ROE) on the example of companies from metallurgy and mining sector in Poland. *Metahurgija, 55*(2), 285-288.

Kour, A. (2018). *Provisions in accounting: Increasing types, treatment.* Retrieved from https://tutorships.com/provision-in-accounting/

Kumar, K. (2017). Analysis of the effects of return on equity and debt to equity ratio on stock price on cement industry listed in Indonesia stock exchange in the year of 2011-2015. *Journal of Business and Management, 19*(5), 66-76.

Kumar, P. (2017). *Creating accounting.* Retrieved from https://www.shdeshare.net/nikhill.larshavandham/creative-accounting-76009759

Largay, J. (2002). Lessons from Enron. *Accounting Horizon, 16*(2), 154-170.

Latridis, G. (2008). Accounting disclosure and firms' financial attributes: Evidence from UK stock market. *International Review of Financial Analysis, 17*(2), 219-241.

Leing, O. & Cooper, S. (1995). Ethical delima in accounting practice. *Australian Accounting Journal ,8*(2), 28-33.

Lekeavan, V. (2014). The relationship of corporate governance and financial performance of manufacturing firms listed in the Nairobi Securities Exchange. *International Journal of Business and Commerce, 3*(12), 40-62.

Mahmud, M. T. (2019). Legitimacy Theory and Its Relationship to CSR Disclosures (A Literature Review). 1-16.

Mainardes, E., Alves, H. & Raposo, M. (2011). Stakeholder theory: Issues to resolve. *Management Decision, 49*(2). 226-252.

Makori, D. M., & Jagongo, A. O. (2013). Environmental accounting and firm profitability: an empirical analysis of selected firms listed in Bombay Stock Exchange, *India. International Journal of Humanities and Social Science, 3*(18), 248-256.

Matar, A. & Eneizean, B.M. (2018). Determinants of financial performance in the industrial firms: Evidence from Jordan. *Asian Journal of Agricultural Extension, Economics and Sociology, 22*(1), 1-10.

Nga, H.T.P (2017). Macro-micro factors affecting the bad debt of commercial banks in Vietnam. *International Journal ofBusiness and Management Review, 5*(6), 60-71

Nimal, N. (2004). *The of financial of India, Saurashtra University, India.*

Nkomani, S. (2013). *Corporate social responsibility and financial performance.* The Johannesbury stock exchange top 100, University of Pretoria.

Nor, M.H. & Ismail, K.N.I.K. (2015). Can independent directors prevent abusive related party transactions? *International Conference on Education and Social Sciences, 4*(2), 480-490.

Norwani, N.M., Mohmad, Z.Z. & Tamby, C.I. (2011). International financial reporting standards and its impact on financial reporting within selected companies. *International Journal of Business and Social Science, 2*(21), 205-213.

Nulla, Y.M. (2014). Does IFRS adoption influence quality of reporting? An empirical evidence from large Canadian banks. *International Journal of Accounting and Taxation, 2*(2), 85-109.

Nwafor, J.C. (2006). Environmental Impact Assessment for Sustainable Development: The Nigerian Perspective. Enugu: EDPCA Publicatio

Nwangi, M. & Iraya, C. (2014). Determinants of financial performance of general insurance underwriters in Kenya. *International Journal of Business and Social Science,* 5(13),210-215.

Obaidat, A. (2017). Income smoothing behaviour at the time of political crises. *International Journal of Academic Research in Accounting, Financial and Management Science, 7*(2), 1-13.

Obi, H.K. & Amaege, A.E. (2017). Effect of IFRS adoption on key performance indices of banks quoted on the Nigerian stock exchange. *International Journal of Research in Management Science and Technology, 5*(2), 59-62.

Odia, J.O. & Ogiedu, K.O. (2013). Corporate governance, regulatory agency and creative accounting practices in Nigeria. *Mediterranean Journal of Social Sciences, 4*(3), 53-66.

Odia, J.O. & Ogiedu, K.O. (2013). IFRS adoption: Issues, challenges and lessons for Nigeria and other adopters. *Mediterranean Journal of Social Sciences*, *4*(4), 389-399.

Ofoegbu, N.G. & Odoemelam, N. (2018). International financial reporting standards (IFRS) disclosure and performance of Nigeria listed companies. *Cogent Business and Management, 5*(1), 1-18.

Ofoegbu, N.G. & Okoro, S. (2014). Towards successful implementation of international financial reporting standards (IFRS) in Nigeria. *International Journal of Research in Management, 2*(4), 1-20.

Ogwo, E. O, & Agu, G. A, (2016). Transport infrastructure, manufacturing sector performance and the growth of gross domestic product in Nigeria, (1999-2011). *Journal of Business and African Economy 2*(1), 1-21.

Pelger, C. (2016). Practice of standards setting, an analysis of the IASB's and FASB's process of identifying the objective of financial reporting. *Accounting Organization and Society, 50(*2), 51-73.

Powers, W.C. (2002). *Report of investigation by the special investigative committee of the board of directors of Enron Corp*. (February 1, 2002) Retrieved May 4, 2023, from http://www.enron.com/corp/por/pdfs/PowersReport.pdf.

Prasilova, P. (2012). Determinanty kapitalore strwktury ceskych podniku. EtM. *Ekonomic a Management: Economics and Management,* 15(1), 89-104.

Purnamasari, D. (2015). The effects of changes on return on assets, return on equity and economic value added to the stock price changes and its impact on earnings per share. *Research Journal of Finance and Accounting, 6*(6), 80-89.

Rahoman, A., Afza, T., Qayyum, A. & Bodla, M.A. (2010). Working capital management and corporate performance of manufacturing sector in Pakistan. *International Research Journal of Finance and Economics, 7*(4), 47-70.

Reilly, F.K. & Brown, K.C. (2012). *Analysis of investments and management of portfolios.* Canada, South-Western Cengage Learning.

Rezace (2002). *Financial statement fraud, prevention and detection*. New York: John Wiley & Sons, Inc.

Riedl, E. & Suraji, S. (2010). Signaling firm performance through financial statement presentation: Special items. *Contemporary Accounting Research, 27*(1), 289-301.

Santos, E.S., Pante, V.M.R. & Mapurunga, P.V.R. (2013). Mandatory IFRS adoption in Brazil (2010).*Index of Compliance with Disclosure Requirements and Explanatory Factors of Firms Reporting, 2*(1), 1-37.

Sanusi, B. & Izedomi, P.F. (2014). Nigerian commercial banks and creative accounting practice. *Journal of Mathematical Finance, 4*(2), 75-83.

Saragih, J.L. (2018). The effects of return on assets, return on equity and debt to equity ratio on stock returns in wholesale and retail trade companies listed in Indonesia stock exchange. *International Journal of Science and Research Methodology, 8*(3), 348-367.

Sari, F.O. (2009). Effects of employee trainings on the occupational safety and health in accommodation sector. Procedia Social and Behavioral Sciences, 1, 1865–1870.

Saxunova, D (2012). Off-balance sheet financing and its impact on reported earnings of Slovak Banks. Journal of Emerging Trends in Finance & Accounting Retrieved from https://reseanhgate.net/publication/286420237

Scotland, J (2012). Exploring the philosophical underpinning of research: relating ontology and epistemology to the methodology and method of scientific interpretive and critical research paradigms. Canadian Centre of Science and Education, 5(9), 9-16

Weingast, B. & Moran, M. (1983). Bureaucratic discretion or congressional control? Regulatory policy making by the federal trade commission. *Journal of Political Economy, 91*(5), 765-800.

Weston, J.F. & Copeland, T.E. (1989) '*Managerial Finance'*, Casell Educational Ltd: London,

Wet, J.H.V.H. & Toit, E. (2007). Return on equity: A popular, but flowed measure of corporate financial performance. *South African Journal of Business Management, 38*(1), 59-69.

Wogu, O.E.(2016). Corporate Governance: The Stakeholders Perspective. International Journal of Business and Management Review, 4(4). 45-51.

Xu, H. & Lei, J. (2011). *Study on the relation between the board characteristics and financial fraud of Chinese listed companies.* International Conference on Management and Service Sciences.

Yakhou M. and Dorweiler V. P. (2003). Environmental Accounting: An Essential Component of Business.

Yeoh,S.P (2007)The legal implication of off balance sheet financing a comparative analysis of UK and US positions. Retrieved from https://core.ac.UK/download/pdf/193.1975.pdf

Young, D. & Guenther, D.A. (2003). Financial reporting environments and international capital mobility. *Journal of Accounting Research, 4*(2), 553-579.

Zhang, L. (2009). *Economic consequences of recognising off-balance sheet activities,* September 11, Financial Accounting and Reporting Section FARS Paper, Retrieved from https://ssm.com/abstract=1266456