Printed ISSN 2621-6167, e-ISSN 2621-4466
https://journal.uniku.ac.id/index.php/ijbe

Environmental Accounting Disclosure And Financial Sustainability In Listed Nigerian Manufacturing Firms

Ogan, Tamunokonbia Promise
Department of Accounting, Babcock University
tamunokoniba0023@pg.babcock.edu.ng

&

Akinbowale, Sileola Adebusola
Department of Accounting, Babcock University
Sileolaakinbowale377@gmail.com

ABSTRACT

With the globalization and dynamic nature of the competitive market environment, manufacturing of quality products at affordable prices no longer guarantee sustainable financial performance, hence firms are now running to sustainability measures to remain financially sustainable. However, manufacturing firms in Nigeria has failed to sustain their performance. Thus, the study was initiated to evaluate the effect of environmental accounting disclosures on financial sustainability of listed Nigerian manufacturing firms. *Ex-post facto* research design using annual reports of 10 listed manufacturing firms was adopted to achieve the objective of the study. Data was measured using multiple regression analysis. The study revealed that environmental accounting disclosures has insignificant but positive effect on financial sustainability of listed manufacturing firms in Nigeria (Adj. R^2 = 0.0468, *F*-statistics = 1.9721, *P*-value = 0.0899). With the introduction of the moderating effect of firm size, environmental accounting disclosures showed insignificant but positive effect on financial sustainability of listed manufacturing firms in Nigeria (Adj. R^2 = 0.0489, *F*- statistics = 1.8487, *P*-value = 0.0981). Thus, the study concluded that environmental accounting disclosures do not have positive but insignificant effect on financial sustainability. It is recommended that the accounting profession should develop standards for reporting environmental accounting information by business entities. At the firm level, there should be voluntary disclosures of environmental accounting information.

Keywords: Environmental accounting, Disclosures, Financial sustainability, Manufacturing firms

JELL CLASIFICATION : G1, M41

INTRODUCTION

The twenty-first century has witnessed the integration of the world as a global village. This globalization has brought about an increasing global competition in all human endeavors, including the market place. In this circumstance, manufacturing of quality products at affordable prices no longer guarantee sustainable financial performance, hence firms are now running to sustainability measures to remain competitive sustainable.

Sustainability which is rooted as strategic management level corporate governance objective, has gained wide acceptance in practice and academic parlance. It addresses three key domains (referred as the 3 "Ps") of people (social or stakeholders), planet (environment) and profit (economic or financial). While focus in the extant literature has been limited to social and environment domains, the economic domain or referred to as "financial sustainability" has been scarcely addressed.

Financial sustainability refers to the management of the limited financial resource of a firm to meet its current needs as well as developing strategic plans to achieve long term needs and goals. It ensures that the firm achieves the long term objective of the firm. Al-Dirawi and Dahash (2018) defined financial sustainability as the consistency of firms in generating positive outcomes that not only covers cost but also accelerate firm growth. It is concerned with the ability of the firm to generate enough financial resources to enable the firm achieve her long term objective.

However, today, firms go into liquidation even after preparing their annual financial due to failure to sustain the financial performance, which could be as a result of stunted growth rate, problem of liquidity bad corporate governance, etc.

Mbah, Ekechukwu and Ogbu (2018) observed that the manufacturing industry has witnessed a sharp decline in savings and investment as well as decline in the stock market activities, as some investors have pulled out their funds from the stock market due to high risks and uncertainty. Similarly, Chukwu, Liman, Enudu and Ehiaghe (2015) averred that international firms like Michelin Plc and Dunlop Plc relocated to other African countries and many firms were delisted in the stock Exchange due to poor performance and disclosure.

Thus, financial sustainability has become a critical consideration for every organization, be it for-profit or not-for-profit organization. In the wake of globalization with increasing sustainability issues, there is great expectation from firms to apply the highest level of ethics in interaction with their stakeholders. Thus, scholars and practitioners have shifted attention to disclosure on environmental accounting information among other issues. The need for environmental accounting is explained by the need to reckon the effects of man's creations and activities on the other segments of environment which in most times affect the quality of life available for living organisms within the environment (Nwakaego, Uzoma & Belonwu, 2020).

Environmental accounting involves the scope of financial accounting to include environmental issues. Nwakaego, *et. al.* (2020) defined environmental accounting as efforts made by an organization to track, record and report its interactions with its immediate environment and

Printed ISSN 2621-6167, e-ISSN 2621-4466
https://journal.uniku.ac.id/index.php/ijbe

natural resources which include effect of its operations and efforts in improving and replenishing of lost critical natural resources. It provides reports for use by both internal and external stakeholders of the firm. Internally, it generates environmental information to help make management decisions on pricing, controlling overhead and capital budgeting. It also discloses environmental information of interest to the firm's external stakeholders public and to the financial community.

Industrialized economies such as UK and USA have developed and incorporated environmental accounting as a system of National Accounts. Ikpor, Ituma and Okezie (2019) observed that countries such as Norway, Philines, Namibia, Idonesia and Saudi Arabia all have introduced environmental accounting to regulate operations of industries that contribute to the environment. They reported that in Nigeria, there are environmental legislations such as Associated Gas Reinjection Act Cap 26, LFN 1990, Federal Environment Protection Agency Act Cap 131, LFN 1990 and the Statement of Accounting Standards (SAS) 14, which regulate both the upstream and downstream sectors of the petroleum industry and the Nigerian Gas of Master Plan, 2008 (Ikpor, *et. al,* 2019).

Despite the environmental legislations, environmental accounting disclosure in Nigeria is still voluntary. Firms report environmental information to conform to industry regulations, pressures from environmental advocates and activists, ownership structure of the company, relationship with parent company (multinational corporations), size and level of profitability, etc. This has led to slow and non-uniform implantation of environmental accounting disclosure in Nigeria.

Besides, there are several benefits associated with firms disclosing environmental accounting information, ranging from improving corporate image, enhancing of competitive advantage, cost reduction, improving reputation and legitimacy (Tawfik, Kamar & Bilal, 2021), financial performance and ultimately financial sustainability. This study was initiated to evaluate the effect of environmental accounting disclosure on financial sustainability of listed Nigerian manufacturing firms.

LITERATURE REVIEW

Conceptual Review

Financial Sustainability

Like many constructs, there is no uniform or generally accepted definition of financial sustainability. In the context of small firms, financial sustainability was defined as the ability of the firm to generate income that exceed the total costs hence survival in business for long term (Njiku, 2019; Njiku & Nyamsogoro, 2019). Income here refers to profitability of the firm

Al-Dirawi and Dahash (2018) defined financial sustainability as the consistency in which firms generate positive outcome that don't just covers cost but also accelerate firms' growth. It is concerned with the ability of the firm to generate enough financial resources to enable the firm achieve her long term objective. These definitions implies that the firm need to generate sufficient financial resource in form of revenue/income from her operations to ensure that she continue to exist to be able to make adequate returns to the various stakeholders of the firm. Such returns include payment of dividend to shareholders, payment of

salary, wages and other employee related benefits to employees; payment of taxes to the government; payment of interest and principal to financial institutions; payment for supplies; etc.

It involves the management of the operations of a firm to ensure its current financial success without jeopardizing its future success. It ensures that the firm achieves her long term objective. To ensure financial sustainability, the firm throughout her life cycle conditions, need to articulate, formulate and implement strategies that would enable her manage her limited financial resources efficiently and plan for the achievement of the long term financial objective.

Measurement of Financial Sustainability

Financial sustainability which is a feature of firm's financial health and its strategic development has been measured empirically using different metrics. Azarenkova, Golovko and Abrosimova (2018) suggested for adoption of economic and mathematical methods to measure financial sustainability. They contend that the use of economic and mathematical models are key to accurate and comprehensive assessment of financial sustainability of the firm which provides the basis for optimizing managerial decision and achieve the targeted level of financial condition.

This study opted to measure financial sustainability using the financial sustainability growth rate model proposed by Robert C. Haggins in 1977. Since, financial sustainability is concerned with the survival of the firm in the long term, it follows that the firm is not expected to go into extinction in the foreseeable future. However, a negative growth rate implies that the firm would see its disappearance in the nearest future. This suggests that the firm can only be sustainable if it could achieve a growth rate. Robert C. Haggins's model is stated as follows:

$$SGR = R \times ROE$$

Where: SGR = Sustainable growth rate

$$R = \text{Retention rate} = \frac{EPS - DPS}{EPS}$$

EPS = Earnings per share

DPS = Dividend per share

Environmental accounting

Like every other social construct environmental accounting lack universally accepted definition, different scholars and organization has defined it differently. Environmental accounting encompasses all the environmental activities relating to an entity's operation. KPMG, UNEP (2016) defined environmental accounting as a system that provides a common framework for organizations to identify and account for past, present and future environmental costs to support managerial decision making, control and public disclosure.

Accounting to Okpo (2020), environmental accounting involves identification, measurement and allocation of the environmental cost, the integration of the environmental costs into business decisions and the subsequent communication of the information to a company's stakeholders. Nwakaego, *et. al.* (2020) defined environmental accounting as efforts towards tracking, recording and reporting of organization's interactions with its immediate environment and natural resources which include effect of its activities and efforts ameliorating and replenishment of lost essential natural resources.

Environmental accounting information include information regarding treatment of chemicals generated in a production

Printed ISSN 2621-6167, e-ISSN 2621-4466
https://journal.uniku.ac.id/index.php/ijbe

process, labour cost (embedded in salaries and wages), disposal costs, fines and penalties, maintenance costs, cost savings in switching to more environmental friendly methodologies, material costs, etc. (Ilirmena, 2020).

Environmental Accounting Disclosure

At its introduction, environmental accounting was basically a voluntary disclosure; however, the concept has gained wide acceptability globally. This has increased the quest for disclosure environmental accounting information in the global business community. Udo (2019) defined environmental accounting disclosure as the identification and accounting for past, present and provision for future environmental costs and benefits to support management in decision-making, control and for public disclosure.

It defines environmental accounting disclosure as the communication of environmental information emanating from the operations of an entity, including green gas emission, energy consumption, waste management, pollution both air, land and water, etc., to the various stakeholders of the firm to enable those stakeholders make various decisions. These decisions include economic, social, regulatory, as well as managerial decision making and control.

Environmental Accounting Disclosure in Nigeria

Okpo (2020) traced the development of environmental accounting in Nigeria to the early 1980s with the formulation of the National Policy of Environment which was preceded by the creation of Federal Environmental Protection Agency (FEPA) through a decree in 1983. The decree provided an obligation for environmental impact assessment by both private and public sector organizations when executing projects that affect the environment significant. These legislations has laid the foundation for environmental accounting in Nigeria. The Ministry of Environment in 2002 produced the guidelines on environmental accounting which emphatically delineated the accounting aspect from other environmental policies. It provided for recognition of environmental accounting information in the financial statement.

Despite these environmental regulations, Iredele, Ogunleye and Okpala (2017) noted that there is no business case for environmental accounting in Nigeria. Environmental accounting disclosure practice among Nigerian firms is generally low For instance; Osazuwa, Ahmed and Adam (2016) observed that the length of environmental accounting disclosure in Nigeria is approximately three sentences per company which is very low. This low environmental accounting disclosure practice is partly attributed cost involved, which increases operating cost of the firms.

Similarly, Jerry, Teru and Musa (2013) observed that disclosure of environmental accounting information in annual report of companies in Nigeria is still voluntary as there are no accounting standards or regulatory and statutory guidelines that mandate such disclosure. Hence, companies adopt disclosures as a result of good industrial practice, pressure from environmental activist and advocates and relationship with parent company.

The implication of this situation is that there is no uniformity in Nigeria, as companies only report information required by law or regulation. Since, environmental accounting disclosure are voluntary and no standard for disclosure, different firms report different information as they desire based on their operation and

management decision on what to report except those that report according to international sustainability agencies such as Global Reporting Initiative (GRI), International Organization for Standardization (ISO), United Nations Compact, etc.

Measurement Environmental Accounting Disclosure

Environmental accounting disclosure has been using either quantitatively using content analysis or qualitatively using environmental index (Solomon, 2020). Adegbie, Ogidan, Siyanbola and Adebayo (2020) measured environmental accounting disclosure using environmental accounting disclosure checklist as a guide to extract data on safety related measure disclosure, waste management disclosure and environmental protection disclosure. Oyedokun, Egberioyinemi and Tonademukaila (2019) and Udo (2019) measured environmental accounting disclosure using content analysis in line with the disclosure index from the Global Reporting Initiative (GRI) framework.

The environmental category of the GRI G4 sustainability reporting guideline include impact related inputs (such as energy and water), impact related outputs (emissions, effluents and waste), biodiversity, transport and product and service related impacts as well as environmental compliance and expenditure.

Moderating Variable – Firm Size

Firm size has been identified has a major determinant in the differential disclosure pattern of firms. Prior studies have found a significant influence both financial sustainability and environmental accounting disclosure practice. These studies inferred that bigger firms are more likely to make better quality environmental accounting disclosure. Firm size has been operationalized using different measures such as share price, revenue, sales, total asset, number of turnover, etc.

Theoretical Framework

This study was underpinned on the stakeholder theory. The origin of the theory is attributed to the seminar work of Edward Freeman in 1984. The stakeholder theory is a general theory that relates to the ethical management of a business organization. It gives explanation of the relationship the firm has with its external environment and its behavior within the environment.

Freeman (1984) defined stakeholder of an organization as “any group or individual who can affect or is affected by the achievement of the organization’s objectives”. The stakeholder group includes management, shareholders, employees, investors, creditors, bankers, customers, government, suppliers, regulatory agencies, local communities and the general public. The theory argues that the involvement of these stakeholders creates value to the firm.

In the wake of globalization with corporate scandal and increasing sustainability issues, there is great expectation from firms to apply the highest level of ethics in their interaction with the various stakeholder groups. The stakeholder approach requires the management of the three areas of sustainability - profit (to remain financially sustainable), planet (the environment) and people (the various stakeholders). Stakeholder issues are of concern to one or more stakeholder groups, while the environmental concern is related to environmental information that forms part of the corporate disclosures required by

the stakeholders to evaluate the sustainability context of investment. The basic proposition here is that financial sustainability of the firm is dependent on the firm's ability to management the environment and the interest of the different stakeholders.

Empirical Review

Different studies have investigated the relationship between environmental accounting disclosure and different organizational outcomes and the result of these studies is inconclusive. While some studies found positive effect, others found negative effect and others found a mixed result. At the same time, while some of the result found significant effect, others found insignificant effect.

In a study of Nigerian oil and gas companies, Nwokeji (2021) revealed that there is no significant relationship between environmental accounting information and profitability of the oil and gas companies in Nigeria. Nor, Bahari, Adnan, Kamal and Ali (2016) in a related study of public listed companies in Malaysia, revealed that environmental accounting disclosure has a relationship with financial performance of the firms.

Findings of Ikpor, *et. al.* (2019) found that environmental operating and environmental prevention cost have a significant and negative effect on the performance of petroleum firms in Nigeria. Nguyen, Nguyen and Ha (2020) in a study of Vietnam firms indicates a negative relationship between environmental financial accounting practice and cost of capital of enterprises. This implies that Vietnamese firms with higher environmental financial accounting practices performance can rapidly reduce their cost of capital (Nguyen, *et. al.*, 2020). However, capital structure which was introduced as a moderating factor in the study did not produce any moderating effect on the nexus between the variables.

Findings from Adegbie, *et. al.* (2020) indicates that environmental accounting influences the share value of food and beverage companies listed in Nigeria (Adegbie, *el. al.*, 2020). Iliemena (2020) investigating the effect of environmental accounting practices on corporate performance of 12 listed oil and gas companies in Nigeria, indicating that environmental accounting has significant positive impact on corporate practicing companies. Similarly, Nguyen, *et. al.* (2020) showed that there is a close relationship between environmental financial accounting practice and financial performance.

Udo (2019) in an examination of environmental accounting disclosure practices of oil and gas companies in Nigeria showed a mixed result. First, it found that profitability has insignificant positive influence on environmental accounting disclosure practices. Secondly, it found that leverage and liquidity have significant positive influence on environmental accounting disclosure practices. Finally, it found that long term financing contribution has insignificant positive influence on environmental accounting disclosure practices.

Similarly, Ezeagba, John-Akamelu and Umeoduagu (2017) in an investigation of food and beverage companies in Nigeria found a mixed result. It did not find any relationship between environmental accounting disclosure and return on capital employed and met profit margin. However, the study found a positive and significant relationship between environmental accounting disclosure, earnings per share and return on equity. The study advocated

for firms to be encouraged to be encouraged to disclose their environmental practices in the annual reports in rder to enhance their competitiveness which will lead to higher performance.

In a study of listed industrial goods company in Nigeria, Oyedokun, *et. al.* (2019) indicates that non-financial environmental accounting disclosures have a positive effect on firm value while the financial environmental accounting disclosure has no significant effect on the value of the firms. The study called for the comprehensive disclosure of environmental risks, liabilities and impact on the environment.

Amiolemen, Uwuigbe, Uwuigbe, Osiregbemhe and Opeyemi (2018) did not find any significant association between corporate social environmental expenditure and the market price of the firms. Similarly, Iredele, *et. al.* (2017) revealed that the level of environmental management accounting practice in Nigeria is low and has no significant effect on the financial performance of sampled firms (Iredele, *et. al.*, 2017).

The empirical review indicates that there is a rich literature on the investigation of relationship between environmental accounting disclosure and organizational outcomes. However, a puzzle remains on the impact of environmental accounting disclosure on financial sustainability. The studies reviewed all measured the performance of the firms investigated ignoring sustainability of such performance. While the studies on other outcomes of performance is not out of place, financial sustainability actually impact on the firm's overall financial health.

METHOD, DATA AND ANALYSIS

The study was initiated to examine the effect of environmental accounting disclosure on financial sustainability of listed manufacturing firms in Nigeria. The *ex-post facto* research design was employed by the researchers to achieve the objective of the study. This enabled the researchers collect secondary data from the population of the study which covered all the manufacturing firms listed in Nigeria. We employed the systematic sampling technique to select 10 listed manufacturing firms. The data was collected from financial reports of firms under investigation for ten years (2011 – 2020). Financial sustainability is measured using Robert C. Haggins financial sustainability growth rate model proposed by in 1977 while environmental accounting disclosure was measured adopting the environmental dimension of the GRI G4 sustainability reporting guideline. To collect data on environmental accounting, the study introduced dummy variables of "1" and "0", where"1" represent items disclosed and "0" represent items not disclosed. Validity of data was ensured by accuracy in the extraction of data from the financial statement of the selected firms, while reliability of data was achieved by ensuring that the financial statement was signed by independent auditors. Annual financial reports prepared and audited under Company and Applied Matter Act 2020 and other regulations such as the Financial Reporting Act (2010) and Security and Exchange Commission regulation. The research data were analyzed using the multiple regression analysis.

Functional Relationship

The functional relationship of the research variables is stated as follows:

Printed ISSN 2621-6167, e-ISSN 2621-4466
https://journal.uniku.ac.id/index.php/ijbe

FS = f(IN,OU,BI,TR,PS)

FS = f(IN,OU,BI,TR,PS,FZ)

Model Specification

The research models for this study are formulated as stated below:

$$FS_{it}=\beta_0+\beta_1IN_{it}+\beta_2OU_{it}+\beta_3BI_{it}+\beta_4TR_{it}+\beta_5PS_{it}+\varepsilon_{it}$$

$$FS_{it}=\beta_0+\beta_1IN_{it}+\beta_2OU_{it}+\beta_3BI_{it}+\beta_4TR_{it}+\beta_5PS_{it}+\beta_6FZ_{it}+\varepsilon_{it}$$

Where: FS = Financial sustainability (sustainability growth rate), IN = Impact related input; OU = Impact related output; BI = Biodiversity; TR = Transport; PS = Product and service related expenditure; SZ = Firm size (natural log of total asset);

***A-priori* expectation**

The *a-priori* expectation of the study from the regression model above is expressed as: $\beta_1 - \beta_6 > O$

This implies that all the components of the independent variable are expected to have a positive and significant impact on financial sustainability of firms under consideration.

RESULT AND DISCUSSION

The research data comprise of environmental accounting disclosure (IN, OU, BI, TR and PS) and financial sustainability measured using sustainable growth rate. The analysis carried out includes the descriptive statistics and regression analysis.

Test of Hypothesis

Objective: The objective of the study is to investigate the effect of environmental accounting disclosure on financial sustainability.

Research Question: What is the effect of environmental accounting disclosure on financial sustainability?

Research Hypothesis: Environmental accounting disclosure does not have any significant effect on financial sustainability.

Table 1. Regression output

Variable	Coeff.	Standard Error	*T*-Stat.	Prob.
C	0.0931	0.0179	5.2022	0.0000
IN	-0.0268	0.0553	-0.4836	0.6298
OU	0.0167	0.0543	0.3074	0.7592
BI	-0.0279	0.0258	-1.0827	0.2817
TR	0.0495	0.0308	1.6094	0.1109
PS	-0.0376	0.0222	-1.6949	0.0934
R^2	0.0949			
Adj. R^2	0.0468			
F-Stat.	1.9721			
Prob. (*F*-Stat.)	0.0899			

Dependent variable: Financial sustainability (FS)

Model 1: $FS_{it}=\beta_0+\beta_1IN_{it}+\beta_2OU_{it}+\beta_3BI_{it}+\beta_4TR_{it}+\beta_5PS_{it}+\varepsilon_{it}$

FS = 0.0931 – 0.0268IN + 0.0167OU – 0.0279BI + 0.0495TR – 0.0376PS

Table 2 presents the regression estimate of model 1 without the moderating effect of firm size. It provides answer to the effect of environmental accounting disclosure on financial sustainability. With an adjusted R^2 value of 0.0438, the composition of the independent variable in the financial sustainability is 4.68% while the remaining 95.32% consist of factors which are not included in the regression model. The coefficient of 0.931 indicates that environmental accounting disclosure has a positive effect on financial sustainability of the firms under consideration. This result is consistent with the *a-priori* expectation of the study. However, the *F*-statistic value of 1.9721 and *p*-value of 0.0899 indicates that this effect is not significant. Thus, the null hypothesis is accepted while the alternate hypothesis is rejected.

Printed ISSN 2621-6167, e-ISSN 2621-4466
https://journal.uniku.ac.id/index.php/ijbe

Table 2. Regression output

Variable	Coeff.	Standard Error	*T*-Stat.	Prob.
C	0.2209	0.1175	1.8804	0.0632
IN	-0.0215	0.0554	-0.3868	0.6998
OU	0.0189	0.02605	0.3489	0.7279
BI	-0.0233	0.0261	-0.8959	0.3726
TR	0.0576	0.0316	1.8240	0.0714
PS	-0.0399	0.0223	-1.7953	0.0758
SZ	-0.0075	0.0068	-1.0999	0.2742
R^2	0.1066			
Adj. R^2	0.0489			
F-Stat.	1.8487			
Prob. (*F*-Stat.)	0.0981			

Dependent variable: Financial sustainability (FS)

Model 2:

$FS_{it}=\beta_0 + \beta_1 IN_{it} + \beta_2 OU_{it} + \beta_3 BI_{it} + \beta_4 TR_{it} + \beta_5 PS_{it} + \beta_6 FZ_{it} + \varepsilon_{it}$

$FS = 0.2209 - 0.0215IN + 0.0189OU - 0.0233BI + 0.0576TR - 0.0399PS + 0.0075SZ$

Table 3 presents the regression estimate of model 2 with the moderating effect of firm size. It provides answer to the effect of environmental accounting disclosure on financial sustainability. With an adjusted R^2 value of 0.0489, the composition of the independent variable in the financial sustainability is 4.89% while the remaining 95.11% consist of factors which are not included in the regression model. The coefficient of 0.2209 indicates that environmental accounting disclosure has a positive effect on financial sustainability of the firms under consideration. This result is consistent with the *a-priori* expectation of the study. However, the *F*-statistic value of 1.8487 and *p*-value of 0.0981 indicates that this effect is not significant. Thus, the null hypothesis was also accepted while the alternate hypothesis is rejected.

Discussion of Findings

The study tested for the effect of environmental accounting disclosure on financial sustainability with and without the moderating effect of firm size. Model 1 which excludes the moderating effect of firm size, with a coefficient of 0.931 shows that environmental accounting disclosure has a positive effect on financial sustainability of listed manufacturing firms in Nigeria (ß = 0.931). It revealed an insignificant effect on financial sustainability of listed manufacturing firms in Nigeria (Adj. R^2 = 0.0468, *F*- statistics = 1.9721, *P*-value = 0.0899).

Similarly, introducing firm size as a moderating variable in model 2 showed that environmental accounting disclosure has positive but insignificant effect on financial sustainability of listed manufacturing firms in Nigeria (ß = 0.2209; Adj. R^2 = 0.0489, *F*- statistics = 1.8487, *P*-value = 0.0981).

The positive effect of environmental accounting disclosure on financial sustainability indicates environmental accounting disclosure makes contribution

to the performance of the firms under investigation. This suggests that firms cannot ignore the management and disclosures of environment performance. Failure to do manage and make such disclosure would lead to the firm being punished by her stakeholders especially consumers. Though, stakeholders are price sensitive, they are likely disposed to reward an ethical firm by paying higher price and punishing an unethical firm by paying less (Owolabi, Adegbie & Ogan, 2020). The result is consistent to that of Ezeagbe, *et. al*. (2017) and Udo (2017). However, it negates that of Ikpor, *et. al*. (2019) and Nguyen, *et. al*. (2020).

The insignificant effect of environmental accounting disclosure on financial sustainability would be attributed to two factors. First, is the level of environmental accounting disclosure in Nigeria, which is voluntary and non-uniform among the firms under investigation as the firms do not disclose the same level of environmental information. While some firms have polices of environmental accounting disclosure, others do not. Also, the firms do not make complete disclosure of the environmental accounting disclosure variables.

Secondly, there are several factors that influence financial sustainability of manufacturing firms which is beyond the research model. The result of insignificant effect is consistent with that of Nwokeji (2021), Oyedokun, *et. al*. (2019), Udo (2019), Iredele, *et. al*. (2019). However, it negates the result of Nguyen, *et. al*. (2020). However, as explained earlier management and disclosures environment issues can't be ignored.

Conclusion and Recommendation

Conclusion

Globalization in the twenty-first century has been accompanied with competition and uncertainty which has led to manufacturing of quality products at affordable prices not guaranteeing sustainable financial performance. With increasing concern for sustainability issues, there is great expectation from firms to apply the highest level of ethics in her interaction with her stakeholders. The study examined the effect of environmental accounting disclosure on financial sustainability in listed Nigerian manufacturing firms. The study revealed that environmental accounting disclosure has insignificant but positive effect on financial sustainability with and without the moderating effect of firm size.

The study implies that there is some level of disclosure by some firms due to institutional affiliation as stated in the annual report of the firms. International sustainability agencies such as GRI which is widely accepted globally, including Nigeria, mandate affiliate organizations to disclose a minimum level of environmental accounting information. Some others engage in environmental accounting disclosure as it pleases them since such disclosure is voluntary. Following the result of the study, the study concludes that environmental accounting disclosure have positive but insignificant effect on financial sustainability of listed Nigerian manufacturing firms in Nigeria.

Recommendation

It is recommended that the accounting profession should develop standards for reporting environmental accounting information by business entities. At the firm level, the study recommends that there should be voluntary disclosures of environmental accounting information.

Printed ISSN 2621-6167, e-ISSN 2621-4466
https://journal.uniku.ac.id/index.php/ijbe

REFERENCES

Adegbie, F. F.; Ogidan, A. A.; Siyanbola, T. T. & Adebayo, A. S. (2020). Environmental accounting practices and share value of food and beverages manufacturing companies quoted in Nigeria. Journal Of Critical Reviews, 7(13), 2256-2264

Ahmed, N. S. (2019). Environmental accounting disclosures: the case of manufacturing listed companies in Palestine securities exchange. *International Journal of Business, Economics and Law, 18*(5), 15-21

Al-Dirawi, A. N. M. & Dahash, Q. M. (2018). The role of financial sustainability to reduce the financial crisis, through the interactive role of the strategic scenario: an analytical study in the sector of commercial banks listed in the Iraq stock exchange. *International Journal of Entrepreneurship, 22*(Special issue), 1-12

Amiolemen, O. O.; Uwuigbe, U.; Uwuigbe, O. R.; Osiregbemhe, I. S. & Opeyemi, A. (2018). Corporate social environmental reporting and stock prices: an analysis of listed firms in Nigeria. *Investment Manage ment and Financial Innovations, 15*(3), 318-328. doi: 10.21511/imfi.15(3).2018.26

Atang, G. T. & Eyisi, S. A. (2020). Determinants of environmental disclosures of listed manufacturing firms in Nigeria. *International Journal of Management Studies and Social Science Research, 2*(1), 143-150.

Azarenkova, G.; Golovko, O. & Abrosimova, K. (2018) Management of enterprise's financial sustainability and improvement of its methods. *Geopolitics under Globalization, 2*(1), 1-14

Benjamin, U. D.; Okpanach, J.; Nyor, T. & Muhammad, M. L. (2017). Effect of firm characteristics on environmental reporting practices of listed manufacturing firms in Nigeria. *Nigerian Journal of Management Sciences, 6*(1), 139-148

Chiu, C. L.; Zhang, J.; Li, M.; Wei, S.; Xu, S. Chai, X. (2020). A study of environmental disclosures practices in Chinese energy industry. *Asian Journal of Sustainability and Social Responsibility, 5*(9), 1 – 21

Chukwu, B. A.; Liman, N. A.; Enudu, T. O. & Ehiaghe, A. F. (2015). The effect of economic recession in textile manufacturing industry in Nigeria. *Asian Journal of Business Management, 7*(3), 43-54

Ezeagba, C. E., John-Akamelu, C. R. & Umeoduagu, C. (2017). Environmental Accounting Disclosures and Financial Performance: A Study of selected Food and Beverage Companies in Nigeria (2006-2015). *International Journal of Academic Research in Business and Social Sciences, 7*(9), 162-174

Günther, T.; Gleißner, W. & Walkshäusl, C. (2020). What happened to financially sustainable firms in the Corona crisis?, *Nachhaltigkeits Management Forum, 28*(2020):83–90

Global Reporting Iintiative (2013). G4 sustainability reporting guidelines. Retrieved from: www.globalreporting.org

Iliemena, R. (2020). Environmental Accounting Practices and Corporate Performance: Study of Listed Oil and Gas Companies in Nigeria. *European Journal of Business and Management, 12*(22), 58-70

Iredele, O. O.; Jumoke Ogunleye, O. J. &, Okpala, O. K. (2017). Determining the Business Case for Environmental Management Accounting (EMA) Practices among Listed Firms in Nigeria: The Stewardship Approach. *Euro Economica, 2*(36), 195-210

KPMG, United Nations Environment Programme (UNEP) (2006) *Carrots and Sticks for Starters*. Current Trends and Approaches in Voluntary and Mandatory Standards for Sustainability Reporting. Parktown

Mbah, E. & Ogbu (2018). Effect of economic recession on the performance of manufacturing firms in Enugu State. *International Journal of Academic Research in Economics and Management Sciences, 7*(2), 32-44

Nguyen, H. A.; Nguyen, L. S. & Ha, H. H. (2020). Environmental accounting practices and cost of capital of enterprises in Vietnam. *Cogent Economics & Finance, 8*(1), 1-17

Nor, N. M.; Bahari, N. A. S.; Adnan, N. A.; Kamal, S. M. Q. A. S. & Ali, I. M. (2016). The Effects of Environmental Disclosure on Financial Performance in Malaysia; *Procedia Economics and Finance 35*(2016) 117 – 126

Nwakaego, O. S.; Uzoma, I. J. & Belonwu, A. J. U. (2020). Environmental Costs Accounting and the Earnings of Oil Firms in Nigeria. *International Journal of Economics and Business Management, 6*(2), 37-51

Nwokeji, N. (2021). Environmental Accounting and Profitability of Selected Quoted Oil and Gas Companies in Nigeria (2012-2017). *Journal of Accounting and Financial Management, 7*(3), 22-39

Odoemelam, N., & Okafor, R. G. (2018). The Influence of Corporate Governance on Environmental Disclosure of Listed Non-Financial Firms in Nigeria. *Indonesian Journal of Sustainability Accounting and Management, 2*(1), 25–49.

Okpo, S. A. (2020). Issues and perspectives in environmental accounting practice
in a contemporary setting with Nigeria in focus. *Inosr Arts and Humanities 6*(1): 76-86

Osazuwa, N. P.; Ahmed, A. C. & Adam, N. C. (2016). Environmental disclosure in Nigerian quoted companies: The longitudinal study. *IPBJ, 8*(2), 19-33

Oyedokun, G. E.; Egberioyinemi, E. & Tonademukaila, A. (2019). Environmental accounting disclosure and firm value of industrial goods companies in Nigeria. *IOSR Journal of Economics and Finance, 10*(1), 07-27.

Owolabi, S. A., Adegbie, F. F. & Ogan, T. P. (2020). Investment in corporate social responsibility and performance of quoted manufacturing firms in Nigeria. *African Journal of Accounting and Financial Research, 3*(1) 12-24

Yahaya, O. A. (2018). Environmental Reporting Practices and Financial Performance of Listed Environmentally-Sensitive Firms in

Printed ISSN 2621-6167, e-ISSN 2621-4466
https://journal.uniku.ac.id/index.php/ijbe

Nigeria. *Savanna: A Journal of Environmental and Social Sciences*, *24*(2), 403 – 412

Zakharova, N. Y. (2013). Methodological Approaches to Assessing the Financial Condition of an Enterprise. *Collection of scientific works of the Tavria State Agrotechnological University (Economic Sciences)*, 2(3), 128-133.