Impact of Environmental and Corporate Social Responsibility Accounting on Organizational Financial Performance: Evidence from Selected Listed Firms in Nigeria Stock Exchange

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Abstract
The study examined the impact of environmental and corporate social responsibility accounting on organizational financial performance of firms in Nigeria. The study was also arranged to determine the extent to which firms’ PAT affects the CSR, EMC and the PBC. The research design employed was exploratory research design. Time series data which comprises CSR, EMC, PBC and PAT of quoted firms in the NSE were the secondary data used. Statistical tools of Multiple Linear Regression and student t-test were used for the analysis. The regression model was estimated through the use of statistical package for social sciences (SPSS). The three null hypotheses used in this study were tested at 5% level of significance. The result obtained showed no impact and a negative impact for CSR and EMC on PAT respectively. While the PBC has a positive impact on PAT. The p-value for CSR and EMC is not significant while PBC is highly significant. The F-test showed a good fit for the model. The study therefore concludes that firms’ expenditure to environmental and social issues are not proportionate to their financial performance as represented by PAT. Therefore CSR and environmental maintenance should be a matter of concern to both the Government, NGOS and firms at large.

Keywords: environmental maintenance cost, corporate social responsibility, personnel benefit cost, profit after tax, firms, financial performance and Nigeria

INTRODUCTION
The success of every business depends largely on the positive impact of the organization on the stakeholders and the environment of the hosting community. Sometimes most firms go down the drain due to the hostility of the hosting community and the lack of support from the stakeholders which consist of the employees, suppliers, customers, the government and the community. Positive response to environmental and social issues by way of accounting and communicating them leaves the investors with the confidence that the organization they are dealing with is transparent. According to Dutta and Bose (2008), the historical development of Accounting attests to the fact that Accounting is a product of its commercial environment and rooted in capitalist ideology. Accounting has scarcely dropped the vestiges of Piccioni’s commercial capitalist era. This disposition of accounting has meant that it destroys its habitat within the ecosystem to the extent that a wide rift now exists between accounting and its natural environment. In the recent times there has been an increased awareness of the interaction between firms and environment in which they operate, this enlightenment has been sharpened by concerns about resources depletion, resources scarcity, environmental degradation and the activities of these firms that lead to the depletion of the ozone layer and thereby causing an imbalance in the environmental system. The increasing concern about environmental degradation, resources depletion and the sustainability of economic activity have made the development of Environmental accounting and reporting an area of significant interest in Nigeria (Adediran and Alade 2013). The success or failure of a company may be determined not only by the products or services it deals with but also by the complexity of its environment. Therefore the need for an empirically study to know the impact of environmental and corporate social responsibility accounting on financial performance of firms in Nigeria. Corporate social responsibility as defined by Pearce and Robinson (2011) is the obligation which a firm has to satisfy the financial interest of its stockholders as well as to meet the needs of the society. Social responsibility has been in practice for centuries. It can be traced back to the Quakers in 17th and 18th centuries whose business philosophy was not targeted at profit maximization only but also, to add value to the larger society. In their view, there is interdependence between business and the society meaning that they rely
on each other for survival (Moon, 2002). In Nigeria, corporate social responsibility gained importance in the 1990s as a result of the interest shown by the international communities in the conflict between oil and gas companies and their host communities (Oguntade and Mafimisebi, 2011).

This study examined the impact of environmental and corporate social responsibility accounting on financial performance of firms by studying a total of fourteen selected firms in Nigeria which include; Julius Berger Nig. Plc, Flour mills of Nigeria Plc, MRS Oil Nig. Plc, First Bank of Nigeria Plc, Zenith Bank Plc, Sterling Bank Plc, Nigerian Aviation Handling Co. Plc, Unilever Nig. Plc, Dangote Cement Plc, Nestle Nig. Plc, Dangote Sugar Plc, Access Bank Plc, Cadbury Nig. Plc and Forte Oil Plc.

Statement of the Problem
Many scholars have argued that firms’ investment in CSR, environmental maintenance and personnel welfare do not impact positively on its financial performance while others are of the view that expenditure on CSR, EM and PB will enhance firms’ profitability and guarantee their going concern. These diverse views have prompted the need to ascertain the consequential impact of investing in CSR, environmental preservation cost and personnel welfare on firms’ profitability.

Objectives of the Study
The main objective of this research is to investigate the impact of Environmental and Corporate Social Responsibility Accounting on financial Performance of firms in Nigeria. The study also seeks to achieve the following objectives:
1. To assess the extent to which the Firms’ Profit after tax (PAT) affects the Corporate Social Responsibility (CSR) cost;
2. To determine the effect of Firms’ financial performance on their Environmental Maintenance Cost as represented by (EMC);
3. To evaluate the extent to which Personnel benefits cost is affected by PAT.

Research Questions
To achieve the above objectives, the following research question has been raised:
To what extent does the firms’ financial performance affect the corporate social responsibility cost, environmental maintenance cost and personnel benefit cost.

Research Hypotheses
Ho1: There is no significant relationship between the Firms’ PAT and the CSR;
Ho2: No significant relationship exists between the firms’ PAT and the EMC;
Ho3: No relationship exists between the Firm’s PAT and the Personnel benefit cost (PBC).

Significance of the Study
The study will provide empirical evidence on the need for firms in Nigeria to focus on social responsibility and environmental preservation. It will also provide government policy makers the insight into the challenges of host communities and other stakeholders. Future researchers will find the data generated for this study very useful for further studies.

Limitation of the Study
The study made use of time series data which covered a period of five (5) years, from 2011 – 2015. The number of sectors listed on the Nigerian Stock Exchange for the period under review is 24. The sample drawn from different sectors was limited to 14 firms only. This was as a result of the huge cost of obtaining their annual reports for data collection. Another constrain was the summarized annual reports being published by some of the firms which do not contain the vital information needed for this study. The researcher made use of the audited financial statements of 14 firms that their reports were comprehensive and easily accessible.

REVIEW OF RELATED LITERATURE
Conceptual Review
Environmental accounting is a system that attempts to make the best possible quantitative assessment (in terms of either monetary or physical units) of the costs and benefits to an enterprise due to the environmental preservation activities that it undertakes (Pramanik, Shil and Das 2007). Schaltegger and Burritt, (2000) defined environmental accounting as “a sub-set of accounting that deals with activities, methods of recording, analyzing and reporting environmentally induced financial impact and ecological impact of a defined economic system.” Uwuigbe (2007) in his study opined that environmental accounting can be seen as a management tool which can be used for a variety of purposes, such as improving environmental performance, controlling costs, investing in cleaner technologies, developing greener processes and products, and taking informed decisions relating to product mix, product retention, and product pricing. In addition, environmental accounting can be seen as the generation, analysis and use of monetarized environmentally related information in order to improve corporate environmental and economic performance. McShane and Glinow (2003) defined social responsibility as a person’s or an organization’s moral obligation towards others who are affected by his or her
actions. It serves as a source of motivation in solving societal problems. Corporate social responsibility is combined with corporate social responsiveness to produce what is known as corporate social performance. A good social performance is socially responsible and also improves organizational profitability (Stoner, Freeman and Gilbert, 2008). Onwuchekwa (2000), mentioned that an organization is socially responsible when it does not restrict itself within the minimum requirement of the law but rather, goes beyond it. He therefore views corporate social responsibility as the acceptance of social obligation by an organization beyond what the law requires. Jones and George (2003) viewed social responsibility as the obligation of a manager to enhance the welfare of the stakeholders and the society in general. In the perception of Kazmi (2003), what a corporate organization intends to do is indicated by its social responsibility. The primary stakeholders to corporate organizations are the owners who risk their money to establish and run the business. Therefore, the business has the responsibility of maximizing the wealth of the owners and other stakeholders such as the employees, the customers, the community and the government in responding to their demands (Fry et al, 2001). Social responsibility in the opinion of Kreitner (2007) has become a very vital organizational function that has been given serious consideration by corporate organizations due to its importance in linking business to the society and creating cordial relationship with government which according to the author has to be carried out in an effective and efficient manner. Corporate social responsibility can also be used as a strategic tool to manage the reputation of the organisation (Jacob, 2012). Perceptions of the organisation’s interactions (as a good citizen) with communities, employees and the environment are considered as an important criterion that stakeholders use to evaluate the organisation’s corporate reputation (Moutinho& Southern, 2010). It is imperative for organisations to focus on offering social benefits or risk damaging their corporate reputations and reducing their competitive advantage (Cravens & Piercy, 2013). Therefore, Thompson et al (2004) conclude that corporate organizations should exercise social conscience in making decisions that affect stakeholders, especially the employees, communities where they operate and the society at large in order to be regarded as exemplary corporate citizens. Organizational performance is the comparison of the actual results of an organization with its intended results (en.m.wikipedia.org). According to the Richard (2009), organizational performance refers to the extent to which a firm is able to accomplish its stated objectives which can be in the area of market share, turnover, innovation, productivity, profitability, customers’ satisfaction etc. Market share refers the percentage of the total business transaction of a particular industry which a firm has. Turnover is the actual sales value of a firm. Innovation is the modification of an existing product into a new product. Productivity is a measure of how well a firm is performing which also serves as an indicator of the efficiency and competitiveness of a firm in the production and marketing of goods and services. Profitability refers to the capacity of firm to generate profit. Profitability which is one of the indicators of organizational performance has two types of ratio namely return on sales, and return on investments (Peavier, 2012). Return on sales refers to a firm’s ability to transform sales into profits. While return on investments measures the overall ability of a firm to generate shareholders’ wealth.

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Figure 1 Conceptual Framework

THEORETICAL FRAMEWORK
Stakeholder Theory
This study is anchored on the stakeholder theory of organization management and business ethics which deals with values and morals in managing an organization. This theory maintains that there is need for an organization to engage in active social role in the society where it is operating since it depends on the society for sustenance (Ojo, 2012). Investors, shareholders, employees, customers, suppliers, government and the communities are the stakeholders involved in the organization.
capable of influencing organizational performance of which managers must ensure that their demands are satisfied according to this theory. The stakeholder theory therefore takes into consideration the need to satisfy those interested parties capable of influencing organizational performance if an organization is to survive in its environment (en.wikipedia.org). Corporate social responsibility has become a necessity in this present time due to the goodwill it generates and for the fact that interdependence exist between the corporate firms and the environment where they are operating. The purpose of establishing an enterprise is value creation that involves producing goods and services that will satisfy the demands of the society which maximizes profit for the owner and contribute in solving societal needs (Akindele, 2011). Stakeholder theory, therefore, is concerned typically with how the organization manages its stakeholders. Thus the information disclosed to the stakeholders may be assumed more properly by the organization to be part of a legitimacy and/or social process.

Legitimacy Theory
According to the legitimacy theory, a company’s performance is legitimate when it is judged to be fair and worthy of support, that is, when it is socially accepted. Legitimacy gaps arise when societal expectations of the firm’s behaviour differ from societal perceptions of its behaviour. A process of legitimating may be engaged in by a company either to gain or to extend legitimacy, to maintain its level of current legitimacy, or to repair or to defend its lost or threatened legitimacy (O’Donovan, 2002). Deegan (2002) argues that where managers perceive that organization’s operations do not commensurate with the social contract then, pursuant to legitimacy theory, remedial strategies are predicted. Because the theory is based on perceptions, any remedial strategies implemented by managers, to have effect on external parties, must be accompanied by disclosure.

Legitimacy theory, like a number of other theories such as political economy theory and stakeholder theory, is considered to be a systems- oriented theory. Within a systems- oriented perspective, the entity is assumed to be influenced by, and in turn to have influence upon the society in which it operates (Watts et al., 1986). Corporate disclosure policies and practices are considered to represent one important means by which the management can influence external perceptions about their organizations. The idea of legitimacy can be directly related to the concept of a social contract, consistent with the view that organizations are part of a broader social system, legitimacy theory assumes that organizations are not considered to have any inherent right to resources, or in fact, to exist. Organizations exist to the extent that the particular society considers that they are legitimate, and if this is the case, the society confers upon the organization the state of legitimacy. Social contract exists between corporations and individual members of society (Mathews, 1993). Legitimacy theory directly relies upon the concept of “social contract”. Specifically, it is considered that an organization’s survival will be threatened if society perceives that the organization has breached its social contract. Where society is not satisfied that the organization is operating in an acceptable or legitimate manner, the society will effectively revoke the organization’s contract to continue its operations. This might be evidenced through consumers reducing or eliminating demand for the business products of the organization, factor suppliers eliminate the supply of labour and financial capital to the organization, or constituents lobbying the government for increased taxes, fines or laws to prohibit those actions which do not conform to the expectations of the society. Legitimacy theory would suggest that whenever managers consider that the supply of the particular resource is vital to organization survival, then they will pursue strategies to ensure the continued supply of the resource. Such strategies may include targeted disclosures, or perhaps, controlling or collaborating with other parties who in themselves are considered to be legitimate (Fiedler et al., 2002).

Accountability Theory
Accountability theory is concerned with the relationship between groups, individuals, organizations and the rights to information that such relationships bring about. Accountability is an act of being responsible or answerable for one’s own decisions or actions with the expectation of explaining and justifying them when asked to do so. Simply stated, accountability is the duty to provide an account of the actions for which one is held responsible (Gray et al., 1991). The natures of the relationships and the attendant rights to information are contextually determined by the society in which the relationship occurs. It is absolutely true that some sort of relationship will exist between an organization and each of its stakeholders. Part of this relationship may be economic in nature and the terms determined by the parties as reflecting their relative powers in the relationship. The information flowing through the relationship will be determined by the power of the parties to demand it (a power which, where it exists, could arise from either the intrinsic abilities and power of the groups concerned or from the legislative processes of the society) and/or the willingness/desire of the organization to provide it (Gray et al., 1997). Society as a whole stands expressing a concern that all
such relationships and their attendant information rights should not be left entirely to the parties and particularly to the organization. The most noticeable manifestation of this societal concern is statute law and standards established by statutory bodies such as environmental protection agency and health and safety at work inspectorate (Gray et al., 1997). Additionally, other mechanisms such as voluntary codes of practice will from time to time enter the public domain as an agreed or, at least, negotiated part of the stakeholder relationship to which the organization must be accountable for. These empirical, beyond law determinants of accountability have been referred to as quasi-law. The existing formal laws plus the quasi-laws therefore represent the first and major element in the construction of the organizational obligations and consequently its accountability to the society (Stone, 1975). It is, of course, naïve to assume a simple one-to-one mapping of a society’s beliefs about the nature of relationships and the attendant information rights and extant law even with the addition of quasi-law. On the other hand, rights to information must reflect asymmetries of power and essential lags between a society’s views and the enactment of law (Dowling et al., 1975). The rights of information can be argued to comprise both positive (legal) and normative (moral) rights. These moral rights must, in some manner, be added to the positive rights to reflect current views of accountability.

Political Economy Theory
Political economy theory explicitly recognizes the power conflicts that exist within society and the various struggles that occur between various groups within the society. The political economy is defined as the social, political and economic framework within which human life takes place (Gray et al., 1996a). The political economy perspective perceives accounting disclosures as social, political and economic documents (Guthrie et al., 1990). They serve as a tool for constructing, sustaining and legitimizing economic and political arrangements, institutions and ideological themes which contribute to the corporation’s private interests. Disclosures have the capacity to transmit social, political and economic meanings for a pluralistic set of report recipients. Political economy theory and legitimacy theory seem to be more appropriate for analysis of exiting practices than as normative bases from which to deduce proper accountability relationships.

A Synopsis of Laws and Regulations on the Environment in Nigeria
The role of legislation in inducing responsible attitudes and behaviours towards the environment cannot be overlooked. Legislation serves as an effective instrument for environmental protection, planning, pollution, prevention and control. The following provides a summary of Nigerian legislation on the environment.

The constitution, as the national legal order, recognizes the importance of improving and protecting the environment and makes provision for it. Relevant sections are:
• Section 20 makes it an objective of the Nigerian State to improve and protect the air, land, water, forest and wildlife of Nigeria.
• Section 12 establishes, though impliedly, that international treaties (including environmental treaties) ratified by the National Assembly should be implemented as law in Nigeria.
• Section 33 and 34 which guarantee fundamental human rights to life and human dignity respectively, have also been argued to be linked to the
need for a healthy and safe environment to give these rights effect.

**National Environmental Standards and Regulation Enforcement Agency (Nesrea) Act 2007**

Administered by the Ministry of Environment, the National Environment Standards and Regulation Enforcement Agency (NESREA) Act of 2007 replaced the Federal Environmental Protection Agency (FEPA) Act. It is the embodiment of laws and regulations focused on the protection and sustainable development of the environment and its natural resources. The following sections are worth noting:

- **Section 7** provides authority to ensure compliance with environmental laws, local and international, on environmental sanitation and pollution prevention and control through monitory and regulatory measures.
- **Section 8 (1)(K)** empowers the Agency to make and review regulations on air and water quality, effluent limitations, control of harmful substances and other forms of environmental pollution and sanitation.
- **Section 27** prohibits, without lawful authority, the discharge of hazardous substances into the environment. This offence is punishable under this section, with a fine not exceeding N1,000,000 (One Million Naira) and an imprisonment term of 5 years. In the case of a company, there is an additional fine of N50,000, for every day the offence persists.

**Regulations (Under NESREA)**

National Effluent Limitation Regulations.

- **Section 1 (1)** requires industry facilities to have anti-pollution equipment for the treatment of effluent.
- **Section 3 (2)** requires a submission to the agency of a composition of the industry’s treated effluents.
- **Section 1** prohibits the release of hazardous substances into the air, land or water of Nigeria beyond approved limits set by the Agency.
- **Section 4 and 5** requires industries to report a discharge if it occurs and to submit a comprehensive list of chemicals used for production to the Agency. Federal Solid and Hazardous Waste Management Regulations (1991).
- **Section 1** makes it an obligation for industries to identify solid hazardous wastes which are dangerous to public health and the environment and to research into the possibility of their recycling.
- **Section 20** makes notification of any discharge to the Agency mandatory.

**Environmental Impact Assessment (EIA) Act. Cap E12, LFN 2004.**

An Environmental Impact Assessment (EIA) is an assessment of the potential impacts whether positive or negative, of a proposed project on the natural environment: The E.I.A Act, as it is informally called, deals with the considerations of environmental impact in respect of public and private projects. Sections relevant to environmental emergency prevention under the EIA include:

- **Section 2 (1)** requires an assessment of public or private projects likely to have a significant (negative) impact on the environment.
- **Section 2 (4)** requires an application in writing to the Agency before embarking on projects for their environmental assessment to determine approval.
- **Section 13** establishes cases where an EIA is required and
- **Section 60** creates a legal liability for contravention of any provision.

**The Nigerian Urban And Regional Planning Act CAP N138, LFN 2004**

The Urban and Regional Planning Act is aimed at overseeing a realistic, purposeful planning of the country to avoid overcrowding and poor environmental conditions. In this regard, the following sections become instructive:

- **Section 30 (3)** requires a building plan to be drawn by a registered architect or town planner.
- **Section 39 (7)** establishes that an application for land development would be rejected if such development would harm the environment or constitute a nuisance to the community.
- **Section 59** makes it an offence to disobey a stop-work order. The punishment under this section, is a fine not exceeding N10, 000 (Ten thousand naira) and in the case of a company, a fine not exceeding N50, 000.
- **Section 72** provides for the preservation and planting of trees for environmental conservation.

**Land Use Act CAP 202, LFN 2004**

The Land Use Act places the ownership, management and control of land in each state of the federation in the Governor. Land is therefore allocated with his authority for commercial, agricultural and other purposes.

**Harmful Waste (Special Criminal Provisions) Act CAP H1, LFN 2004**

The Harmful Waste Act prohibits, without lawful authority, the carrying, dumping or depositing of
harmful waste in the air, land or waters of Nigeria. The following sections are notable:
- Section 6 provides for a punishment of life imprisonment for offenders as well as the forfeiture of land or anything used to commit the offence.
- Section 7 makes provision for the punishment accordingly, of any conniving, consenting or negligent officer where the offence is committed by a company.
- Section 12 defines the civil liability of any offender. He would be liable to persons who have suffered injury as a result of his offending act.

**Hydrocarbon Oil Refineries Act, Cap H5, LFN 2004**
The Hydrocarbon Oil Refineries Act is concerned with the licensing and control of refining activities. Relevant sections include the following:
- Section 1 prohibits any unlicensed refining of hydrocarbon oils in places other than a refinery.
- Section 9 requires refineries to maintain pollution prevention facilities.

**Oil In Navigable Waters Act, Cap 06, LFN 2004**
The Oil in Navigable Waters Act is concerned with the discharge of oil from ships. The following sections are significant:
- Section 1 (1) prohibits the discharge of oil from a Nigerian ship into territorial waters or shorelines.
- Section 3 makes it an offence for a ship master, occupier of land, or operator of apparatus for transferring oil to discharge oil into Nigerian Waters. It also requires the installation of anti-pollution equipment in ships.
- Section 6 makes punishable such discharge with a fine of N2, 000 (Two thousand naira).
- Section 7 requires the records of occasions of oil discharge.

**Associated Gas Re-Injection Act, Cap 20, LFN 2004**
The Associated Gas Re-Injection Act deals with the gas flaring activities of oil and gas companies in Nigeria. The following sections are relevant to pollution prevention:
- Section 3 (1) prohibits, without lawful permission, any oil and gas company from flaring gas in Nigeria.
- Section 4 stipulates the penalty for breach of permit conditions.

**The Endangered Species Act, Cap E9, LFN 2004**
This Act focuses on the protection and management of Nigeria’s wildlife and some of their species in danger of extinction as a result of overexploitation. These sections are noteworthy:
- Section 1 prohibits, except under a valid license, the hunting, capture or trade in animal species, either presently or likely to be in danger of extinction.
- Section 5 defines the liability of any offender under this Act.
- Section 7 provides for regulations to be made necessary for environmental prevention and control as regards the purposes of this Act.

**Sea Fisheries Act, Cap S4, LFN 2004**
The Sea Fisheries Act makes it illegal to take or harm fishes within Nigerian waters by use of explosives, poisonous or noxious substances. Relevant sections include the following:
- Section 1 prohibits any unlicensed operation of motor fishing boats within Nigerian waters.
- Section 10 makes destruction of fishes punishable with a fine of N50,000 or an imprisonment term of 2 years.
- Section 14 (2) provides authority to make for the protection and conservation of sea fishes.

**Inland Fisheries Act, Cap I10, LFN 2004**
Focused on the protection of the water habitat and its species, the following sections are instructive:
- Section 1 prohibits unlicensed operations of motor fishing boats within the inland waters of Nigeria.
- Section 6 prohibits the taking or destruction of fish by harmful means. This offence is punishable with a fine of N3, 000 or an imprisonment term of 2 years or both.

**Exclusive Economic Zone Act, Cap E11, LFN 2004**
The Exclusive Economic Zone Act makes it illegal to explore or exploit natural resources within the Exclusive zone without lawful authority. The Federal Government regulates the activities of the Exclusive Zone.

**Oil Pipelines Act, Cap 07, LFN 2004**
The Oil Pipelines Act and its Regulations guide oil activities. The following sections are pertinent:
- Section 11 (5) creates a civil liability on the person who owns or is in charge of an oil pipeline. He would be liable to pay compensation to anyone who suffers physical or economic injury as a result of a break or leak in his pipelines.
- Section 17 (4) establishes that grant of licenses are subject to regulations concerning public safety and prevention of land and water pollution.

OIL PIPELINES REGULATIONS (UNDER OIL PIPELINES ACT)
- Section 9 (1) (b) establishes the requirement of environmental emergency plans.
Section 26 makes punishable any contravention with a fine of N500,000 and/or an imprisonment term of six months.

**Petroleum Act, Cap P10, Lfn 2004**
The Petroleum Act and its Regulations remain the primary legislation on oil and gas activities in Nigeria. It promotes public safety and environmental protection. The following sections are relevant:
- Section 9 (1) (b) provides authority to make regulations on operations for the prevention of air and water pollution.
- Section 43 (3) requires the Manager of a refinery to take measures to prevent and control pollution of the environment.
- Section 45 makes any contravention punishable with a fine of N100 or an imprisonment term of six months.

**REGULATIONS**

**Petroleum Drilling and Production Regulations:**
- Section 17 (1) (b) places restrictions on licensees from using land within fifty yards of any building, dam, reservoir, public road, etc.
- Section 23 and 27 prohibits, without lawful permission, the cut down of trees in forest reserves.
- Section 25 establishes that reasonable measures be taken to prevent water pollution and to end it, if it occurs.

**Petroleum Refining Regulation**
- Section 43 (3) requires the Manager of a refinery to take measures to prevent and control pollution of the environment.
- Section 45 makes any contravention punishable with a fine of N100 or an imprisonment term of six months.

**Mineral Oil Safety Regulations and Crude Oil Transportation And Shipment Regulations**
These Regulations prescribe precautions to be taken in the production, loading, transfer and storage of petroleum products to prevent environmental pollution.

**Petroleum Products and Distribution Act, CAP P12, LFN 2004**
Under this Act, the offence of sabotage which could result in environmental pollution is punishable with a death sentence or an imprisonment term not exceeding 21 years.

**Territorial Waters ACT, CAP T5, LFN 2004**
The Territorial Waters Act makes punishable any act or omission committed within Nigerian waters which would be an offence under any other existing law.

**Nuclear Safety and Radiation Protection Act, CAP N142, LFN 2004**
The Act is concerned with the regulation of the use of radioactive substances and equipment emitting and generating ionizing radiation. In particular:
- Section 4 provides authority to make regulations for the protection of the environment from the harmful effects of ionizing radiation.
- Section 15 and 16 makes registration of premises and the restriction of ionizing radiation sources to those premises mandatory.
- Section 37 (1) (b) allows an inspector verify records of activities that pertain to the environment.
- Section 40 clarifies that the same regulations guiding the transportation of dangerous goods by air, land or water should also apply to the transportation of radioactive substances.
recovery of costs and expenses incurred by the officers in controlling the situation.

**Animal Diseases (Control) Act, CAP A17, LFN 2004**
The Animal Disease (Control) Act makes it an offence to import any animal, hatching egg or poultry into Nigerian except under a permit. The following sections are relevant:
Section 5 provides an inspector with the authority to take emergency measures where necessary.
Section 10 stipulates penalties for contravening any regulation.
Section 13 requires owners of trade animals to possess a movement permit and ensure the fitness of their animals.
Section 20 provides authority to make regulations that prevent and control the spread of animal diseases.

**Bees (Import Control and Management) Act, CAP B6, LFN 2004**
It is an offence, under this Act, to import bees or apicultural materials into Nigeria without a valid permit. A person could also be held liable for exceeding the terms of his permit.

**CIVIL AVIATION ACT**
The Civil Aviation Act promotes public safety by providing regulations to secure the safety of persons and property in the aircraft and others who may be endangered by it.

**Factories Act, CAP F1, LFN 2004.**
The Factories Act promotes the safety of workers and professionals exposed to occupational hazards. Under this Act, it is an offence to use unregistered premises for factory purposes. In particular:
Section 13 allows an inspector take emergency measures or request that emergency measures be taken by a person qualified to do so in cases of pollution or any nuisance.

**Water Resources Act, CAP W2, LFN 2004.**
The Water Resources Act is targeted at developing and improving the quantity and quality of water resources. The following sections are pertinent:
Section 5 and 6 provides authority to make pollution prevention plans and regulations for the protection of fisheries, flora and fauna.
Section 18 makes offenders liable, under this Act, to be punished with a fine not exceeding N2000 or an imprisonment term of six months. He would also pay an additional fine of N100 for everyday the offence continues.

**Hides And Skins Act, CAP H3, LFN 2004.**
The Hides and Skins Act and its Regulations are concerned with the preparation, quality and trade of hides and skins. It prohibits the use of unlicensed premises or enclosure as a place for the preparation or buying of hides and skins for export.

**The Federal National Parks Act, CAP N65, LFN 2004**
The National Parks Act is concerned with the establishment of protected areas used for resource conservation, water catchments protection, wildlife conservation and maintenance of the national ecosystem balance.

**Niger-Delta Development Commission (NDCC) Act, CAP N68, LFN 2004**
The Niger-Delta Development Commission Act is concerned with using allocated funds to tackle ecological problems arising from the exploration of oil minerals in the Delta. Section 7 (1) (b) empowers the Commission to plan and to implement projects for the sustainable development of the Delta in the field of transportation, health, agriculture, fisheries, urban and housing development, etc.

The Commission, under this Act, has a duty to liaise with oil and gas companies and advice stakeholders on the control of oil spillages, gas flaring and other related forms of environmental pollution.

**OTHER LEGISLATION:**

**Environmental Sanitation Law:**
This is a law of Lagos State focused on environmental sanitation and protection. It punishes in varying degrees acts like street obstruction, failure to clean sidewalks, cover refuse bins or dispose wastes properly.

**Environmental Pollution Control Law**
Section 12 of this law under the Laws of Lagos State makes it an offence to cause or permit a discharge of raw untreated human waste into any public drain, water course or onto any land or water. This offence is punishable with a fine not exceeding N100, 000 (One hundred thousand naira) and in the case of a company, a fine not exceeding N500, 000.

**CRIMINAL CODE**
The Criminal Code contains provisions for the prevention of public health hazards and for environmental protection. Hence:
Sections 245-248 deal with offences ranging from water fouling, to the use of noxious substances.
Reasons for Companies to Report Their Environmental Activities in Nigeria

There are several reasons environmental issues should be incorporated into the companies’ Annual Reports. Some of them include:

1. Environmental Accounting may lead to the avoidance of penalty or fines imposed by Environmental Protection Agency in the countries where such legislation exists.
2. Environmental Accounting promotes research and development which will eventually translate into significant reduction in many environmental costs through the design of more environmental friendly production process (Medley 1997).
3. Environmental Accounting can attract more investors because investors sometimes need information on environmental performance and expenditure to make decisions.
4. Environmental Accounting can promote more accurate costing and pricing of product.
5. Environmental Accounting may attract incentives from the government in form of tax reduction and subsidies.
6. Environmental Accounting can lead to the development of Environment Management System (EMS) which is necessary for companies engaged in International Trade. (Hutchinson 2002 and Lethmathe and Doost 2000).

ENVIRONMENTAL RELATED COST

Pollution Abatement Cost

Pollution abatement is a cost that is borne by many businesses for the removal and/or reduction of an undesirable item that they have created. Abatement costs are generally incurred when corporations are required to reduce possible nuisances or negative by-products created during production. Examples of abatement costs would be the pollution reduction costs of paper mills and noise reduction costs of manufacturing plants.

Waste Management Cost

Waste management involves identifying what is there, sorting, separating, transforming, returning to service what can be used and properly disposing what is left (Rose, 2002). According to Ghush, (2009) wastes are inevitable human activity. They are either a by-product of initial production process or they arise when objects or materials are discarded after they have been used. Novick (2009) enumerated the accounting for waste management in any community, town or city as follows: associate cost on the reduction in the speed of sanitation related diseases, reduction on occurrence of no communicable diseases and reduction on environmental pollution (degradation of land, water and air) etc. All organizations are expected to make a report on the associated cost incurred in the management of waste. This is because stakeholders required this information to evaluate the organization’s responsibility to environmental matters and the activities the organization must have engaged in to circumvent environmental degradation. Howbeit the cost incurred by the organization reduces the organizations performance but these are expenses that should be better incurred to further accomplish the aim of satisfying consumer both in the production of goods and services and engaging in environmentally friendly activities.

Fines and Penalty

These are cost borne by an organization for the violation of the rule and regulation guiding specific environmental issues. Penalty and associated costs incurred as expense are expected to be fully disclosed in the organizations’ financial statements. Fines and penalty has an inverse relationship with companies’ performance, as it reduces profit and the return on assets.

REVIEW OF EMPIRICAL STUDIES

Adediran and Alade (2013), examined the impact of environmental accounting on corporate performance in Nigeria. The result of the study showed a significant negative relationship between environmental accounting and return on capital employed (ROCE) and (EPS) and a significant positive relationship between environmental account and net profit margin and dividend per share. The study therefore recommends that government should encourage firms that comply with environmental laws.

Hilda, Hope and Nwoye (2015), studied corporate social responsibility and performance of selected firms in Nigeria. Product moment correlation was used for data analysis. Findings revealed a significant relationship between social responsibility cost and corporate profitability. The study concluded that social responsibility was vital to organizational performance.

Magara, Aminga and Momanyi (2015), focused on the impact of environmental accounting on financial performance of corporate organization in Kisi County. The study adopted a stratified sampling design. Findings revealed that the perceived financial performance of the corporate organization in general was in good status as perceived by the employees.

Okafor, Hassan and Hassan (2008), study on environmental issues and corporate social responsibility with Nigeria as a case study reveals that industrial
activities have adversely affected the environment creating serious discomfort to the inhabitants especially in the oil producing area and that there is urgent need to seriously address the problem.

The KPMG international environmental consulting group together with the Institute for Environmental Management at the University of Amsterdam carried out international surveys on environmental reporting in the years 1993, 1996, and 1999. This survey observed the reporting practices in the largest 250 companies in the world (19 countries) coupled with an analysis of practices of the top 100 companies in 11 countries. Findings suggest an increase in the use of environmental reports, the dominance of the industrial sector in explaining environmental disclosure, and that a certain proportion of the reports (18%) were independently verified (KPMG, 1999).

Babalola (2012) examined the impact of corporate social responsibility on firms’ profitability in Nigeria. The statistical tool used to analyse the data collected was ordinary least square. The result from the firms sampled showed less investment on social responsibility since less than ten percent of their annual profit is accounted for. The researcher therefore recommends that CSR has to be imposed on firms in Nigeria by the government through enforcement of relevant laws and regulations.

Olowokudejo and Aduloju (2011) carried out a study which indicated that insurance companies are involved in all four forms of CSR activities (business ethics, urban affairs, consumer affairs and environmental affairs) with consumer affairs receiving the most active involvement. They used a survey data which revealed that involvement in corporate social responsibility have positive relationship with organizational effectiveness and therefore, conclude that being socially responsible can help insurance companies succeed, increase their profitability and overall performance.

Akindele (2011) researched on corporate social responsibility as an organizational tool for survival in Nigeria by examining four major banks in Osogbo, Osun State. The study was to identify the extent of participation of the banking industry in CSR using primary source of data collection procedure through questionnaire administration. Frequency distribution was used to analyze the data and the findings of the study revealed that about 90% of the participants indicated that the extent of participation of the banks in social responsibility activities is high.

Ejumudo, Edo, and Sagay (2012) did a critical assessment of environmental issues and corporate social responsibility in Nigeria, by using Niger Delta region as a case study. The researchers used survey research method which involves primary source of data collection. The study revealed that CSR undertaken by oil corporations’ activities in this region have had adverse effect on the environment and conclude that oil companies operating in the region has done little or nothing to improve the living standards of the host communities or prevent the degradation caused by oil exploration.

Classon and Dahlstrom (2006) carried out a study on corporate social responsibility and how it can affect company performance in Sweden using survey data, observe that CSR can influence customer perceptions on a product or service offering and in the end affect company performance. Among all the studies reviewed above, it appears that none of the authors used time series data that covered a period of years with correlation technique to assess if environmental maintenance, personnel welfare and social responsibility are statistically relevant to the financial performance of organizations in Nigeria.

**RESEARCH METHOD**

**Research Design**
The study made use of exploratory research design which is necessary for discovering ideas and insights into the natural phenomena (Ezejelue, Ogwo and Nkamnebe, 2008). Time series data employed comprise corporate social responsibility cost, environmental maintenance cost, personnel benefit cost and profit after tax of the selected quoted firms for a period of five years (2011 – 2015). The secondary data were generated from Annual Reports and Accounts of Fourteen (14) randomly selected companies quoted on the Nigerian stock exchange for the year 2016. The data were then analyzed using multiple regression analysis to achieve the desired objectives.

**Model Specification**
PAT = f (CSR, EMC, PBC)
Where;
PAT = Profit after Tax
CSR = Corporate Social responsibility
EMC = Environmental maintenance cost
PBC = Personnel Benefit Cost

**Mathematical Specification**

\[ Y_i = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + e \]

Where;
\[ Y_i = \text{Profit after Tax} \]
\[ X_1 = \text{Corporate Social responsibility} \]
\[ X_2 = \text{Environmental maintenance cost} \]
\[ X_3 = \text{Personnel benefit cost} \]
\[ b_0 = \text{The parameter which represents the intercept} \]
\[ b_1, b_2, b_3, b_4, b_5, b_6, b_7 = \text{The regression parameters used in determining the significance of the impact of each of the independent or explanatory variables } x_1, x_2, x_3 \text{ on dependent variable, } Y \]
\[ e = \text{Random disturbance term. These include the variables which (although not specified) in this model may also impact the firms’ profitability. They include government policies, militants’ disturbances, political instability etc.} \]

**RESULTS AND DISCUSSIONS**

The result from SPSS below has been summarised as follows:

<table>
<thead>
<tr>
<th>Summary of the Results</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>( R )</td>
<td>0.908</td>
</tr>
<tr>
<td>( R^2 )</td>
<td>0.824</td>
</tr>
<tr>
<td>Adj.( R )</td>
<td>0.777</td>
</tr>
<tr>
<td>Std Error of estimate</td>
<td>59278.48</td>
</tr>
<tr>
<td>Durbin – Watson</td>
<td>1.638</td>
</tr>
<tr>
<td>F Value</td>
<td>17.225</td>
</tr>
<tr>
<td>DF</td>
<td>14-3 = 11 \text{ie F-tab = 3.59 (Under 5%)}</td>
</tr>
<tr>
<td>PV (Significant)</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 1 shows the \( R^2 \) of 82.4% which is the rate of variability on the dependent variable (PAT) by all the independent variable (CSR, EMC, & PBC) combined. That means PAT of firms affect the behaviour of explanatory variable which is accounted for by the model.

Table 2 is the F-Test to determine whether the model is a good fit for the data. From the p-value, the model is a good fit since the P<0.05. That is, the F-value of 17.225 with the P-value of 0.000 shows that the model is statistically significant.

Table 3 means that \[ Y = -2533.651 + 1.011\text{CSR} - 0.764\text{EMC} + 6.855\text{PBC} \]

**TEST OF HYPOTHESIS**

The study earlier hypothesized that: significant relationship does not exist between firms PAT and their CSR, EMC, & PBC. Therefore the study has tested sets of variables using the t-test, to see if they are significant.

The results revealed the following: \( \text{CSR} = 0.206 < 3.59 \) (no impact), significance level \( p = 0.840 > 0.05 \text{i.e., not significant}; \) \( \text{EMC} = -0.657 < 3.59 \) (negative impact), significance level \( p = 0.525 > 0.05 \text{i.e., not significant}; \) \( \text{PBC} = 6.278 > 3.59 \) (strong positive impact) significance level \( p = 0.000 < 0.05 \text{i.e., Significant}. \)

Based on the result from SPSS, the study has accepted the null hypothesis for one (1) with the variable CSR and two (2) with the variable EMC and rejected the null hypothesis for three (3) with the variable PBC.

**CONCLUSION AND RECOMMENDATION**

The result in X1 and X2 agrees with Ejumudo, Edo and Sagay (2012) study which revealed that oil companies CSR expenditure cannot be compared with the destructive effect of their activities in the host communities. Babalola (2012) study also revealed that firms’ investment in CSR is less than 10% of their annual profit. Though, this study was carried out on selected firms listed on the NSE, yet it appears that environmental and social responsibility negligence by firms has been a reoccurring decimal. The expenditure on them by firms is not commensurate with their financial performance. More value are placed on the personnel, perhaps to motivate them to put in their best. The obvious remains that, workers cannot perform better in a hostile environment. A peaceful political environment is one of the determinants of a successful business. A business that want to succeed has environmental maintenance as an obligation at least for the safety and security of the workers and organization’s properties.

The study therefore recommends that firms should pay more attention to environmental issues. Social responsibility should be a great concern to firms, NGOs and the Government. Environmental and social activities engaged by firms should be well communicated to the stakeholders especially the host communities to avoid few set of individuals taken advantage of what is meant for the entire public in an area. All these measure if applied could lead to a relatively peaceful business environment.

Therefore further study is recommended for other researchers to establish and suggest a percentage based
on standard parameters, as it is in taxes, that the Government can impose on firms in Nigeria in the area of EMC and CSR.

Table 1: Variables From Companies Financial Statements

<table>
<thead>
<tr>
<th>NAME OF ORGANIZATION</th>
<th>PAT</th>
<th>CSR</th>
<th>EMC</th>
<th>PBC</th>
</tr>
</thead>
<tbody>
<tr>
<td>JULIUS BERGER NIG. PLC</td>
<td>31</td>
<td>223</td>
<td>-</td>
<td>12</td>
</tr>
<tr>
<td>FLOUR MILLS NIG. PLC</td>
<td>48</td>
<td>642</td>
<td>1,173</td>
<td>3,768</td>
</tr>
<tr>
<td>MRS OIL NIG. PLC</td>
<td>3,137</td>
<td>65</td>
<td>1,483</td>
<td>1,116</td>
</tr>
<tr>
<td>FIRST BANK NIG. PLC</td>
<td>232,949</td>
<td>45,630</td>
<td>192,085</td>
<td>49,766</td>
</tr>
<tr>
<td>ZENITH BANK PLC</td>
<td>449,821</td>
<td>7,112</td>
<td>8,285</td>
<td>57,586</td>
</tr>
<tr>
<td>STERLING BANK PLC</td>
<td>41,434</td>
<td>494</td>
<td>7,273</td>
<td>3,282</td>
</tr>
<tr>
<td>NIGERIAN AVIATION HANDLG CO.PLCL</td>
<td>3,414</td>
<td>196</td>
<td>603</td>
<td>3,065</td>
</tr>
<tr>
<td>UNILEVER NIG. PLC</td>
<td>19,524</td>
<td>445</td>
<td>2,870</td>
<td>8,526</td>
</tr>
<tr>
<td>DANGOTE CEMENT PLC</td>
<td>3,414</td>
<td>196</td>
<td>603</td>
<td>3,065</td>
</tr>
<tr>
<td>DANGOTE SUGAR PLC</td>
<td>105,864</td>
<td>178</td>
<td>23,589</td>
<td>35,218</td>
</tr>
<tr>
<td>ACCESS BANK PLC</td>
<td>185,831</td>
<td>1,483</td>
<td>27,246</td>
<td>12,151</td>
</tr>
<tr>
<td>CADBURY NIG. PLC</td>
<td>17,022</td>
<td>28</td>
<td>2,368</td>
<td>5,094</td>
</tr>
<tr>
<td>FORTE OIL PLC</td>
<td>(3,273)</td>
<td>9</td>
<td>4,979</td>
<td>4,248</td>
</tr>
</tbody>
</table>


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Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.908 a</td>
<td>.824</td>
<td>.777</td>
<td>59278.48478</td>
<td>1.638</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), pbc, emc, csr
b. Dependent Variable: pat

ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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</thead>
<tbody>
<tr>
<td>Regression</td>
<td>181587022979.31</td>
<td>3</td>
<td>60529007659.770</td>
<td>17.225</td>
<td>.000 b</td>
</tr>
<tr>
<td>Residual</td>
<td>38653326342.022</td>
<td>11</td>
<td>3513938758.366</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>220240349321.33</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: pat
b. Predictors: (Constant), pbc, emc, csr

Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-2533.651</td>
<td>19010.989</td>
<td>-.133</td>
<td>.896</td>
</tr>
<tr>
<td>csr</td>
<td>1.011</td>
<td>4.899</td>
<td>.095</td>
<td>.206</td>
</tr>
<tr>
<td>emc</td>
<td>-.764</td>
<td>1.162</td>
<td>-.297</td>
<td>.657</td>
</tr>
<tr>
<td>pbc</td>
<td>6.855</td>
<td>1.092</td>
<td>1.014</td>
<td>6.278</td>
</tr>
</tbody>
</table>

a. Dependent Variable: pat
REFERENCES


Babalola, Y.A. (2012): The impact of corporate social responsibility on firms’ profitability


Fiedler, K. (2000): “NGOs and Social Transformation under Globalization,” an international conference at Shanghai Fudan University, Shanghai September.


