# ENVIRONMENTAL REPORTING AND ACCOUNTING RESEARCH IN NIGERIA: CURRENT PRACTICES, PROSPECT AND FUTURE DIRECTION

Tajudeen John AYOOLA (Ph.D, FCA)
Department of Management and Accounting
Obafemi Awolowo University
Ile-Ife, Osun State, Nigeria
e-mail: alabiayoolaaca@yahoo.com

**ABSTRACT**

Concerns for the environment have led to the emergence of environmental accounting and reporting that will account for human and industrial impact on the environment. There is a widespread acceptance that organisations should provide accounts of their social and environmental performance in addition to financial performance. This study therefore provides a review of environmental reporting practices by companies in Nigeria; assess current research status, prospect and future direction with implications for chartered accountants. This was with a view to shedding more light on the development and implementation of environmental accounting and reporting in Nigeria. The results found an absence of a standardised guideline and a lack of commitment towards environmental reporting system in Nigeria which has resulted in haphazard disclosure of environmental data; a deficient corporate environmental reporting that is not of international standard to satisfy the information needs of various classes of shareholders; and a failure of organisations to recognise the economic value of natural resources as assets as well as the business and financial value of good environmental reporting. Additionally, the study found out that the volume and quality of published research on environmental accounting in Nigeria is low and the methodology is largely descriptive in nature. Majority of the studies are focused on the oil and gas sector to the neglect of other industries. The study concluded that there is a need for measurement system that will assess industries' impact on the environment and organisations should disclose their environmental performance to stakeholders as part of the discharge of their stewardship function. There is also a great scope for expanding the amount and quality of research in this emerging discourse. Finally, the study suggests ways in which the future development of environmental accounting practice might be given further impetus in the Nigerian context.

Keywords: Environmental Reporting. Environmental Performance.

## GENERAL BACKGROUND TO THE STUDY

The general aim of this research is to provide an overview of prior research in environmental accounting and reporting in Nigeria. This paper has three specific objectives. Firstly, it provides a review of current practices by companies on environmental issue. Secondly, it reviews major contribution by accounting researchers in the field. The challenges for accountants are discussed and finally some future research directions are identified.

### Introduction

Traditionally, companies' reporting primarily consists of financial information which includes inter-alia, the statement of financial position and statement of profit and loss and other comprehensive income, cash flow statements, and the notes to the accounts. The current financial reporting, which was developed in the 1930s for an industrial world provides a backward looking review of performance (Krzus, 2011; PWC, 2010; KPMG, 2010). Corporate reporting was mainly about the financial performance of companies and provided investors with insight into the historic performance on key financial indicators which served as an indication of future performance to support investment decisions (Ligteringen & Arbex, 2010). The traditional financial reporting system is premised on the notion that the purpose of the firm is exclusively to promote the interest of shareholders (Massie, 2010). Thus, a wider community of stakeholders like the environmentalists, non-governmental organisations, immediate communities, etc has no consideration in the system of reporting.

However, this neo-classical business model, with its foundation in laissez-faire economics and a maximisation of economic profits as the pre-eminent goal of the firm has been heavily criticised by many different stakeholders. The criticism has focused majorly on the insensitivity impacts (Benston, 1982). Furthermore, the recognition that our current way of life poses a threat to us and our planet has led to a global agreements on actions to prevent future environmental damage, some of the agreement include the Montreal Protocol, Rio Declaration, Kyoto Protocol, etc. Additionally, the loss of shareholders' value due to corporate scandals, global financial crisis and environmental disasters have raised fundamental questions about the functioning of the capital markets and the extent to which existing corporate reporting disclosures highlight systemic risks and the true cost of doing business in today's world. It is becoming increasingly recognised that a company's overall governance and performance in the context of macro-economic factors such as climate change, depletion of the world's finite natural resources, working conditions and human rights are of strategic importance to companies' long-term success, as well as to society as a whole (Druckman & Fries, 2010).

In 1992, the United Nations held a conference on Environment and Development (or Earth Summit) in Rio de Janeiro to discuss sustainable development. As stated in the preamble of Agenda 21 which is a plan of action agreed upon by more than 178 governments in attendance, a recommendation was made that countries should implement environmental accounting. The recommendation was based on the conference's findings that better measurement of the environment's crucial role as both a source of natural capital and repository is an important first step towards the integration of sustainability into economic management. In response to the increased scrutiny, criticism and recommendation outlined above, companies began to respond principally in the form of social reports via their annual reports (Staniski & Stasiskiene, 2006). Historically, social and environmental accounting is somewhat of an eclectic term which has evolved over the years. Linowes (1968) first coined the term socio-economic accounting" in order to highlight the sociological, political and economic aspects of an accounting that had a significantly broader scope than the conventional accounting paradigm. By the mid-1970s, the term had evolved into "social accounting" and during the 1980s, the public stature of environmental has increased significantly and this was reflected in some authors broadening of the term to "social and environmental accounting". Social and environmental accounting also known as Triple-bottom reporting, green accounting or sustainability reporting embodies a type of research and practice which focuses on the effect that the organization has on the natural environmental and the effect the environment has on the organization, all of which can be interpreted and expressed in terms of financial and physical units. It is taken to mean the identification and reporting of environment related cost such as liability cost and costs related to waste disposal. It is an accounting for any costs and benefits that arise from change to a firm's products and processes where the change also involves a change in environmental impact. Environmental accounting provides reports for both internal use (generating environmental information to help make management decisions on pricing, controlling overhead and capital budgeting) and external uses (disclosing environmental information of internet to the public and to the financial community) (Yakhou & Dorweiler, 2004).

**Justification for the Emergence of Environmental Reporting and Accounting**

**(a) Environmental danger:** The environment is under threat. Mankind is exposed to environmental threats: pollution is building up and stops heat leaving the earth and inter alia has caused sea-levels to rise as icecaps melt; the ozone layer is being eroded; air quality suffers through the build up of ground – level ozone, while acid rain causes environmental damage and degradation; many rivers are badly polluted and the extensive use of pesticides and chemicals has led to a decline of biodiversity. The scale of the problems is immense: a quarter of the world's land is at risk from desertification, 40% of agricultural soils have been degraded, half of the world's forests have disappeared (Jones, 2010).

(b) **Industry has a great impact on environment:** Traditionally, human activity shaped the environment incrementally and intermittently, but now, human impact, particularly industrial activity is now significant across a broad spectrum of activities. Industry is directly responsible for major environmental incidents (such as oil spill) or habitat loss (such as deforestation by logging companies). Indirectly, the increasing usage of agricultural pesticides and herbicides cause biodiversity loss, while industrial activity causes air, land and water pollution. There is now clear scientific evidence that emissions from economic activities, particularly the burning of fossil fuels for energy, are causing changes to the Earth's climate (Jones, 2010, Stern, 2006).

(c) **Industrials and organizations have a duty to act:** Another premise is that no government, organization or individual (and that includes accountants) can afford to be complacent when faced with such potential threats. Natural capital assets are important parts of our natural environment which must be protected by accountants to ensure continuity of life on earth.

(d) **Inadequacy of conventional accounting system:** conventional accounting is not suitable for environmental accounting. Conventional accounting is not designed to capture human beings' impact upon the natural environment hence the need for some sort of environmental accounting and reporting. A new environmental accounting system would need to measure, capture and disclose full range of environmental corporate impacts. This would include, inter alia, accounting for air and water pollution, and the depletion of natural resources.

**Components of Environmental Accounting**

Steele and Powell (2002) define environmental accounting as the identification, allocation and analysis of material streams and their related money flows by using environmental accounting systems to provide insight in environmental impacts and associated financial effects. The main component to consider for environmental accounting is that of environmental costs. Environmental costs are those costs that have a direct financial impact on a company (internal costs), and costs to individuals, society and the environment for which the company is not accountable (external costs). Internal costs may include

- Conventional costs: which are costs of capital equipment, raw materials and supplies.
- Potentially hidden costs: overlooking future and contingent costs
- Contingent costs: this refer to environmental costs that are not certain to occur in the future but depend on uncertain future events, e.g. the costs involved in remediating future spills
- Image and relationship costs: these are less tangible costs because they are incurred to affect subjective perceptions of managements, employees, communities and regulators. This category can include costs of community relations activities and costs expended voluntarily for environmental activities such as tree planting.

External costs include

- environmental degradation
- human impact costs e.g. damage caused to a river because of polluted waste water discharges.

Conventional management accounting systems most often attribute environmental costs to general overhead accounts with the consequence that product and production managers have no incentive to reduce environmental costs.

**Nature of Environmental Accounting Practice**

The nature of environmental accounting can be broadly divided into 3 namely: environmental cost accounting, environmental management accounting and environmental financial reporting.

**Environmental cost accounting**: Environmental cost accounting directly places a cost on every environmental aspect and determines the costs of all types of related action. Environmental actions include pollution prevention, environmental design and environmental management.

**Environmental management accounting** (EMA): EMA is the generation, analysis and use of financial and related non-financial information to support management. It analyses environmentally related financial costs and benefits, contributing to recognition of the high and increasing levels of capital and operating expenses, for pollution control equipment, and environmental taxes. EMA, as part of environmental accounting, has been claimed as a beneficial tool to overcome the limitation of conventional management accounting to better understanding and quantifying environmental – related issues for internal decision making purpose.

**Environmental financial reporting**: This is the external reporting of environmental information via annual reports and/or stand-alone reports to stakeholders.

## Theories underlying Environmental Accounting

There are so many theories that can be used to explain the bases of environmental accounting, prominent among the theories are: legitimacy theory, stakeholder theory, resource dependence theory, political economy theory, institutional sociology theory, and the reputation risk management theory.

Legitimacy theory states that for organisations to survive, they need to legitimise their existence to society and environmental reporting enables them to be legitimate. The stakeholder theory highlights the various stakeholders that an organisation needs to manage in order to legitimise its existence. It is concerned with how companies manage their shareholders. The institutional sociology theory emphasizes the survival value of conformity with institutional environment. Such conformity leads, for example to increased stability, legitimacy and access to resources. The theory endorses adherence to external rules and norms. The reputation risk management theory emphasizes organisational reputation and outlines strategies that can be used to manage an organisation's reputational risk through environmental accounting and reporting

## Regulatory Environmental Frameworks in Nigeria

As suggested by Nobes (2006), national accounting traditions are likely to continue influencing financial reporting behaviour because of cross-country differences in national regulations and legal systems. It is pertinent to know that firms in countries with constraining regulations regarding environmental disclosure comply more closely with environmental requirements than firms domiciled in countries with less constraining regulations. In several countries, various regulations impose corporate reporting requirements concerning environmental issues (Barbu, Dumontier, Feleaga & Feleaga, 2014).

Some of the environmental laws in Nigeria are as follows:

- **Constitution of the Federal Republic of Nigeria**: The constitution recognises the importance of improving and protecting the air, land, water, forest and wildlife of Nigeria. It establishes, though impliedly, that international treaties (including environmental treaties) ratified by the National Assembly should be implemented as law in Nigeria.
- **National Environmental Standards and Regulation Enforcement Agency (NESRES) Act, 2007**: The Ministry of Environment administers the NESREA Act of 2007 which 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. It provides authority to ensure compliance with environmental laws, local and international, on environmental sanitation and pollution prevention and control through monitoring and regulatory measures. It prohibits, without lawful authority, the discharge of hazardous substances into the environment. This offence is punishable with a fine not exceeding 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.

- **Environmental Impact Assessment (EIA) Act, 2004**: An EIA is an assessment of the potential impacts of a proposed project on the natural environment
- **The National Effluent Limitation Regulation, 1991**: This law made it mandatory for industrial facilities to install anti-pollution equipment for the treatment of effluent. It prohibits the release of hazardous substances into the air, land or water of Nigeria beyond approved limits set by the Agency.
- **Federal Solid and Hazardous Waste Management Regulations, 1991**: This law 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.
- **Harmful Waste Act, 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.
- **Associated Gas Re-Injection Act, 2004**: The law deals with the gas flaring activities of oil and gas companies in Nigeria. It prohibits, without lawful permission, any oil and gas company from flaring gas in Nigeria.
- **The Endangered Species Act, 2004**: The Act focuses on the protection and management of Nigeria's wildlife and some of their species in danger of extinction as a result of over-exploitation.

**Current Trends of Environmental Reporting by Companies in Nigeria**

Key indicators of environmental information have been identified by the Global Reporting Initiative (GRI) and the World Business Council for Sustainable Development and the most relevant types of information are as follows:

- **Environmental Policy**: This is a disclosure on how environmental problems can have consequences on company management and the impact of companies' activities and products on the environment. It summarises the company's point of view on environmental issues and its commitment to best manage it. It explains the strategy the company will implement for the protection of the environment. For instance, *For instance, we are Nigeria's leading producer of fuel. We revised and updated our environmental, health and safety policy during the year to meet today's and tomorrow's demand. Our goal is to operate without causing adverse effects on either man or the environment and in line with our policy, we intend to spend 1% of our profit in the next 3 years as demonstration of our commitment to the environment.*

**Environmental Impacts**: This is a disclosure of the impact the company has on the environment. This tend towards a disclosure related to the improvement of emissions in water, air and land, as well as bad news which may include incidental spilling of crude or other types of accidents which happened during the year. This may also include description of specific environmental impacts and of possible intervention undertaken by the company to protect the environment. For instance:

| | Base year | Achieved in 2014 | Target for 2020 |
|---|---|---|---|
| SO2 emission | 2010 | 84% | 40% |
| Energy efficiency | 2010 | 50% | 90% |
| Uncontained spill | 2010 | 20 incidents | 2 incidents |

- **Environmental management systems and certification**: A description of the environmental management system gives a greater sense of security that the company really does take care of environmental problems in the best possible way. This may include environmental certification such as ISO 14000
- **Environmental Targets**: Information on environmental targets is usually related to information about environmental impact. This information helps to understand the company's direction, position and attitudes with respect to environmental issues. For instance: '"*We intend to reduce emission by 45% in the next 3 years*".
- **Ecological Products**: This is the disclosure of information on the production of eco-friendly and compatible product or low environmental impact products. For instance "*Our company has introduced diesel fuels with increasing lower sulphur contents and improved the quality of its gasoline, thereby reducing emissions by 2,000 cubit volume per day"*
- **Reference to environmental reports**: Where further information concerning environmental topics is contained in a separate report, a cross-reference to this report is useful. For instance: *"Our company's annual environmental, health and safety report provides additional information of our environmental activities which can be downloaded at http://www.socialreports.com."*
- **Environmental financial information**: To give significance and to compare data across companies the financial environmental disclosure should be quantified and accompanied by additional information that qualify the financial data presented. Some of which are environmental expenses, environmental liabilities, and environmental insurance

An assessment of companies in respect of environmental information can be summarised as follows:

**(i)** Environmental accounting and reporting is voluntary in Nigeria, hence management is free to use its discretion in selecting information to be reported (Ayoola & Olasanmi, 2013).

**(ii)** A larger percentage of companies disclose environmental information in the chairman and/or directors' report as against the current trend of a separate environmental report. Albeit, the information are substantially qualitative in nature (Osazuwa, Okoye & Ezedonmi, 2013; Uwalomwa & Jafaru, 2012)

**(iii)** While some regulations state that companies should provide information on environmental impact of their operations, yet there is no specific guideline on the type of information to be released (Ayoola & Olasanmi, 2013).

**(iv)** Since environmental reporting is voluntary and there is no standard way for presenting and interpreting these issues, companies only disclose what they want stakeholders to know and as such the extent of environmental information varies from company to company. A larger percentage of companies report only a general remark connected to their environmental commitment (Uwalomwa & Jafaru, 2012; Owolabi, 2008)

**(v)** A larger percentage of companies only give a descriptive and qualitative kind of disclosure which is generally low in relevance, reliability, clarity, comparability and credibility (Mamman, 2004).

**(vi)** There has been minimal increasing trends in environmental disclosure principally among multinational companies operating in Nigeria, however, most of the reports are descriptive or qualitative in nature and commented on positives ignoring the negatives (Owolabi, 2008). The multinationals in the oil and gas sector provide little quantifiable information such as emission performance indicators or quantifiable targets.

**(vii)** Organisations in Nigeria have not integrated environmental accounting as a strategic option but merely as a philanthropic act. Consequently, there is no development and implementation of business strategies for meeting environmental challenges.

## 8. Current Trend of Environmental Reporting Research in Nigeria

The studies on environmental accounting and reporting available on the internet are analyzed using the following indices: (i) Types of research; (ii) Focus on industry; (iii) Research methods: (iv) Theoretical framework; and (iv) Basis of Analysis.

**(i)** **Types of research:** Most environmental accounting research has been descriptive (qualitative) in nature and this may be partly caused by non-availability of quantitative environmental data. This has made policy decisions difficult to make and implement (Uwalomwa & Jafaru, 2012).

**(ii)** **Research Methods:** A variety of research methods have been used to explore environmental accounting and reporting methods. These methods primarily include content analysis, interviews, surveys, experiments, and ethnographic methods. Most studies largely adopt the content analysis method (Ayoola & Olasanmi, 2013; Uwalomwa & Jafaru, 2012; Ebimobowei, 2011; Owolabi, 2008; Mamman, 2004); while few studies adopt the questionnaire method (Emeakponuzo & Udih, 2015).

**(iii)** **Focus of Industry:** Most environmental accounting research have been largely focused on the oil and gas industry (Asaolu, Agboola, Ayoola & Salawu, 2011; Ayoola, 2012; Ayoola and Olasanmi, 2013). Few studies have been done on listed companies comprising manufacturing and cement industries (Ebimobowei, 2011; Owolabi, 2008), however, there is a general neglect of other sectors such as Chemical and Paint, Pharmaceutical, Paper, Transportation, Cement Manufacturing, Electricity Generating Company, etc,

(iv) **Theoretical framework:** There seems to be a lack of theorisation in the majority of the studies (over 60%) published on environmental reporting and accounting in Nigeria. Legitimacy and stakeholder theories have been extensively used (Uwalomwa & Jafaru, 2012;) while newer perspectives such as reputation risk management and institutional sociology are yet to be used.

(v) **Basis of Analysis:** There are many international recognized bases for measuring/analyzing environmental reports such as Global Reporting Initiative (GRI 4); ISO 14000;

Notwithstanding an increase in this body of research over the last decade, in-depth empirical investigation and critical evaluation of environmental practices and their effects remain relatively scarce. There is a dearth of understanding as to what organisations are really doing (why and how) in respect of their environmental practices.

**Environmental Reporting: Challenges for Accountants in Nigeria**

It has been arguably posited that the accounting system is ill-equipped to provide adequate information about the environmental activities of organizations. The task of accounting is to supply information on the operation of the organizations active within the economy. Accounting facilitates the sharing of information, providing a method which increases the transparency of the operating processes. The information need of the organizations, taking account of environmental and social effects, is a separate area of development of accounting, which follows from the relationships of the economic sphere and the environment.

Studies in advanced countries where environmental accounting has developed revealed that although accountants in companies might have been aware of environmental issues, they are unable to incorporate their positive attitudes towards environmental issues into corporate activities (Kuasirikun, 2005). Among the reasons given include: the failure of professional bodies of accountancy to perceive environmental accounting development as "sufficiently important to accountants" current activities; accountants do not appear to play a facilitating role in helping the companies achieve their environmental goals, nor did they appear to be aware of environmental issues and their financial implications; refusal of accountancy bodies to respond to increasing environmental concerns of their community.

**The Role of Higher Institution in advancing the frontier of Environmental Accounting**

The low level of environmental accounting in Nigeria is not different from that of other developing economies. This has been partly ascribed to a more fundamental fault in accounting education system, in which little or no attention is paid to promote critical thinking and consideration of environmental issues. Accounting lecturers in tertiary institutions across the country have a great role to play in advancing the frontiers of environmental accounting in Nigeria. Very few tertiary institutions have integrated environmental accounting in their post-graduate and under-graduate curricula.

It will be a service to the nation for tertiary institutions to implement environmental accounting now so that the future accountants can effectively understand and use such knowledge at the working place. The Institute of Chartered Accountants of Nigeria (ICAN) can play a leading role here by collaborating with tertiary institutions in areas of logistic, technical expertise, advice and funding.

**Prospects of Environmental Accounting for Accountants in Nigeria**

It is acknowledged by most accountants operating in the accounting /auditing field that verifying the existence of potential environmental liabilities is a very difficult and onerous task, and most financial auditors recognise that they lack the knowledge and understanding to adequately perform this task. At the same time, there is growing pressure on financial auditors to verify environmental data in their attest function and there has been a global trend of increasing number of companies providing more environmental data in their annual financial statements and/or stand-alone environmental reports.

**12. Future Directions for Empirical Research**

There must be a shift away from survey studies describing what companies were reporting toward studies seeking to determine the quality, materiality and drivers of environmental disclosure practice. There is a need to position environmental policy in the overall business policy and strategy.

While environmental accounting, as a unit of social accounting, has been dominant in both academic and professional studies, some new concepts have emerged, one of which is integrated reporting. It has been highlighted that existing environmental accounting practices function in isolation of financial reporting and therefore do not have a significant impact on business strategy and operations. Integrated reporting, which was pioneered in South Africa business professional groups, has been proposed as a new form of reporting that integrates economic, social and environmental information in a concise manner (Lodhia & Hess, 2014). Some other contemporary issues are climate change, water accounting, carbon accounting, natural resource accounting. Also the regulatory aspects of environmental accounting and reporting require the attention of accounting researchers. Within the Nigerian research context, Ayoola & Olasanmi (2013) has argued for a business case for integrated reporting in the oil and gas sector.

## CONCLUSION AND RECOMMENDATION

There are some forms of environmental reporting in Nigeria, however, the reports contain little quantifiable data, adhoc, general and self-laudatory because of a lack of a distinct format for such reporting. In line with the systems adopted by some industrialised economies that have adopted mandatory reporting, it is obvious that without some form of regulatory interventions, reliance on voluntary disclosure alone is unlikely to result in either a high quality or sufficient levels of disclosure. Corporate environmental disclosures are mere attempts at improving the image of companies rather than to fulfil the various stakeholders' information needs as contained in International best practice guidelines.

The Financial Reporting Council of Nigeria (FRCN) and the Institute of Chartered Accountants of Nigeria (ICAN) can establish an environmental accounting committee that can undertake a study on environmental disclosures with a view to providing clarifications on: recognition and provisions for environmental liabilities and risks; the definition and treatment of environmental expenditures; environmental information that should be disclosed; and the format for such disclosures.

## REFERENCES

Abeysekera, I. (2013). A template for Integrated Reporting. Journal of Intellectual Capital, Vol 14(2), pp. 227-245.

ACCA (2013). Application of Capitals to Integrated Reporting Explored in New Background Paper. CSR Wire. Retrieved Online from http://www.csrwire.com on 11th November, 2013.

ACCA/NBA (2013). Capitals: Background Paper for Integrated Reporting. International Integrated Reporting Council.

Adams, C. (2013). Integrated Reporting and the Six Capitals: What does it all mean? Towards Sustainable Business. Retrieved Online from http://www.theswitchreport On 10th November, 2013.

American Institute of Certified Public Accountants (AICPA) (2013). Integrated Reporting, Materiality Background Paper, AICPA.

Alembakis, R. (2013). Applying Multiple Capitals essential to Integrated Reporting. Corporate Reporting. Retrieved Online from http://www.thesustainabilityreport.com on the 18th of October, 2013.

Al-Fattah, S.M. (2013). National Oil Companies: Business Models, Challenges, and Emerging Trends. USAEE Working Paper 13

Armbrester, K. (2010). Leveraging the Internet for Integrated Reporting in Eccles, R.G., Cheng, B., & Saltzman, D. (eds). The Landscape of Integrated Reporting: Reflections and Next steps. Harvard Business School. Retrieved online from http://hbswk.hbs. edu.pdf on 4th January, 2012.

Asaolu, T.O., Agboola, A.A., Ayoola, T.J., & Salawu, M.K. (2011). Sustainability Reporting in the Nigerian Oil and Gas sector. Being a paper delivered at the Environmental Management Conference held at the University of Agriculture, Abeokuta, Nigeria between 12th and 15th September.

Ayoola, T.J. (2011). Gas Flaring and its Implication for Environmental Accounting in Nigeria. Journal of Sustainable Development, Vol. 4 (5), pp. 244-250.

Bertoneche, M. & Lugt, C. (2013). Finding the God particle of the Sustainability Business Case: Greener Pastures for Shareholder Value. Harvard Business School Working Paper 13-072, pp. 1-19.

Bhattacharyya, A.K. (2013). Integrated Reporting: Concept Capital. Retrieved Online from http://www.business-standard.com on 13th October, 2013.

Blacksun (2012). Understanding Transformation: Building the Business Case for Integrated Reporting. Retrieved Online from http://www,theiirc.org on 17th November, 2013.

Blanch, M. (2004). The Business case for Voluntary Environmental Initiatives and Corporate Sustainable Development.

Busco, C., Frigo, M.L., Quattrone, P. & Riccaboni, A. (2013). Redefining Corporate Accountability through Integrated Reporting. Strategic Finance, pp.33-41.

Carte, D. (2011). Integrated Financial reporting. Protecting society, the environment and investors or another ball and chain for business? Retrieved online from http:// www.moneyweb.co.za on 12th November, 2011.

Casadesus-Masanell, R. & Ricart, J.E. (2007). Competing through Business Models. IESE Business School Working Paper 713.

Chandrasekera, D.E. (2013). Many Global Corporates follow Integrated Reporting Fundamentals. Retrieved Online from http://www.sundaytimes.ik on 17th November, 2013.

Deloitte, (2011). Integrated Reporting: Is your message lost in regulation? Retrieved online from http://www.iasplus.com on 22nd December, 2011.

Deloitte (2012). Integrated Reporting: The New Big Picture. Deloitte Review, Issue 10.

Deloitte (2013). Telling the Story of Long term Value Creation. Insights to the IIRC's Integrated Reporting Framework Consultation.

Druckman, P. & Fries, J. (2010). Integrated Reporting: The Future of Corporate Reporting?, in Eccles, R.G., Cheng, B., & Saltzman, D. (eds), The Landscape of Integrated Reporting: Reflections and Next Steps. Harvard Business school. Retrieved online from http://hbswk.hbs.edu/pdf/ on 4th January, 2012.

Eccles, R.G. & Krzus, M.P (2010). One Report: Integrated Reporting for a sustainable strategy, New York: John Wiley & Sons, Inc.

Eccles, G.E. (2010). Introduction: The State of Integrated Reporting Today in Eccles, R.G., Cheng, B., & Saltzman, D. (eds), The Landscape of Integrated Reporting: Reflections and Next Steps. Retrieved online from http:// http://hbswk.hbs.edu/pdf/ on 4th January, 2012.

Eccles, R., Ioannou, I. & Serafeim, G. (2011). The Impact of a Corporate Culture of Sustainability on Corporate Behaviour and Performance. Harvard Business School Working Paper 12-035, Boston.

Enemaku, O.S. (2006). Community Relations and Oil-Related Conflicts in the Niger Delta, Nigeria. Being a paper presented at a seminar on "Norway, Nigeria and Oil" organised by the Norwegian Council for Africa, Oslo, Norway.

Ernst & Young (2013). The Concept of 'Capital' in Integrated Reporting. Retrieved online from www.theiirc.org on 12th September, 2013.

Federation of European Accountants (FEE) (2011). Integrated Reporting. Retrieved online from http://www.theiirc.org on 3rd January, 2012.

Institute of Chartered Accountants in Australia (ICAA) (2011). Spot light on Integrated Reporting. Retrieved online from http: www.charteredaccountants.com.au

International Institute for Environment and Development (IIED) (2009). Business Models for Sustainable Development. Retrieved Online from www.iied.org on 17th November, 2013.

International Integrated reporting Committee (IIRC) (2011). Towards Integrated Reporting: Communicating Value in the 21st Century. IIRC, London.

Ioannis, I, & Serafeim, G. (2011). The consequences of mandatory corporate sustainability reporting. Harvard Business School working Paper 11-100.

Jeyaretnam, T.L., & Niblock-Siddle, K. (2010). Integrated Reporting: A perspective from Net Balance in Eccles, R.G., Cheng, B. & Saltzman, D. (eds), The landscape of Integrated Reporting: Reflections and Next steps. Harvard Business school. Retrieved online from http://hbswk.hbs.edu/pdf/ on 4th January, 2012.

Kingston, K.G. (2011). Shell Oil Company in Nigeria; Impediment or Catalyst of Socio-Economic Development?. African Journal of Social Sciences, 1(1), pp.15-36.

Kiore, B.K. (2012). The Business Case for Sustainability Risk Management. KPMG

Knight, A. (2010). Think Different in Eccles, R.H., Cheng, B., & Salzman, D. (eds). The landscape of Integrated Reporting: Reflections and Next steps. Harvard Business school. Retrieved online from http://hbswk.hbs.edu/pdf/ on 4th January, 2012.

KPMG. (2010). Integrated Reporting: Closing the loop of strategy. Retrieved online from http:www.kpmg.com/global/en

Krzus, M.P. (2001). Integrated Reporting: If not now, when?. P. IRZ, Heft 6, June.

Ligteringen, E. & Arbex, N. (2010). Will Integrated Reporting make sustainability Reporting Obsoletes? In Eccles, R.G., Cheng, B., & Saltzman, D. (eds). The Landscape of Integrated Reporting: Reflection and Next steps. Harvard Business school. Retrieved online from http://hbswk.hbs.edu/pdf/ on 4th January, 2012.

Macroeconomic Subgroup (2011). U.S. Oil and Gas Industry Business Models. Working Document of the National Petroleum Council North American Resource Development Study.

Makinen, S. & Seppanen, M. (2007). Assessing Business Model Concepts with Taxonomical Research Criteria. Management Research News, Vol 30(10), pp.735-748.

Massie, R. K. (2010). Accounting and Accountability: Integrated Report and the purpose of the Firm, in Eccles, R.G., Cheng, B., & Saltzman, D. (eds), The Landscape of Integrated Reporting: Reflection and Next steps. Harvard Business School. Retrieved online from http://hbswk.hbs.edu/pdf/ on 4th January, 2012.

Mertins, K., Kohl, H. & Orth, R. (2012). Integrated Reporting and Integrated Thinking: A Resource oriented Perspective. 8th Interdisciplinary Workshop on Intangibles, Intellectual Capital and Extra-Financial Information.

Nessing, S. (2010). The Business Imperative of Stakeholders Engagement in Eccles, R.G., Cheng, B., & Saltzman, D. (eds), The Landscape of Integrated Reporting: Reflections and Next steps. Harvard Business school. Retrieved online from http://hbswk.hbs. edu/pdf/ on 4th January, 2012.

Niger Delta Development Commission (NDDC) (2004). Niger Delta Regional Regional Development Master Plan: Draft 3. Directorate of Planning, Port Harcourt.

Obi, C. (2006). A Political Economy of the Petroleum Industry in Nigeria. Being a paper presented at a seminar on “The Political Economy of Mining in Africa”. Accra, Ghana, March 2-4

PricewaterhouseCoopers (PWC) (2010a). King Council. Integrated Reporting steering point. Retrieved online from http://origin-pwc.pwc.com

PricewaterhouseCoopers (2010b). Integrated Reporting: what does your reporting say about you. Retrieved online from www.pwc.com/gx/en.

PricewaterhouseCoopers (2012). Integrated Reporting: The Future of Corporate Reporting. PricewaterhouseCoopers AG.

Pringle, C. (2010). One rule for the West and another for the rest?. Oil spills in the Niger Delta versus the Gulf of Mexico. Retrieved online from http://www. Consultancy Africa.com on 12th January, 2012.

Ranganathan, J. (2013). New Integrated Reporting Framework Aims to Tackle Profit and Planet. Guardian Sustainable Business.

Reed, D.J. (2001). Stalking the Elusive Business Case for Corporate Sustainability. World Resources Institute, Washington.

Richardson, J. (2008). The Business Model: An Integrative Framework for Strategy Execution. Strategic Change, Vol 17(5/6), pp. 133-144.

Ruggie, J. (2010). Business and Human Rights: Further steps towards the operationalisation Report of the special representative of the secretary-General on the issue of human rights and traditional corporations and other business enterprises. Retrieved online from http://baseswiki.org/en/

Salzmann, O., Ionescu-Somers, A. & Steger, U. (2005). The Business Case for Corporate Sustainability. Literature Review and Research Options. European Management Journal, Vol 23(1), pp.27-36

Schaltegger, S., Ludeke-Freund, F. & Hansen, E.G. (2011). Business Case for Sustainability and the Role of Business Model Innovation. Centre for Sustainability Management, Leuphana University of Lueneburg, Scharnhorststr

Schaltegger, S. & Wagner, M. (2006). Managing and Measuring the Business Case for Sustainability. Greenleaf Publishing, Sheffield.

Sharfman, M. & Fernando, C. (2008). Environmental Risk Management and the Cost of Capital. Strategic Management Journal, Vol 29, pp. 569-592.

Sinclair, J. (2013). Going down the Integrated Reporting Path. New Zealand Institute of Chartered Accountants. Retrieved Online from http://www.nzica.com on 17th November, 2013.

Solomon, J. & Maroun, W. (2012). Integrated Reporting: The Influence of King III on Social, Ethical and Environmental Reporting. ACCA, London.

South Africa Institute of Chartered Accountants (SAICA) (2010). World's three parallel crises call for adoption of Integrated Reporting. SAICA Media Release. Retrieved online from http://www.saica.co.za.

Stubbs, W. & Higgins, C. (2012). Sustainability and Integrated Reporting: A Study of the Inhibitors and Enablers of Integrated Reporting. Institute of Chartered Accountants in Australia.

Teece, D.J. (2010). Business Models, Business Strategy and Innovation. Long Range Planning, Vol 43, pp.172-194.

Tonello, M. (2011). The Role of the Board in Accelerating the Adoption of Integrated Reporting. Retrieved Online from http://blogs.law.harvard.edu/corpgov on 17th November, 2013.

Unerman, J. & O'Dwyer, B. (2007). The Business Case for Regulation of Corporate Social Responsibility and Accountability. Accounting Forum, Vol 31, pp. 332-353.

Unwakonye, M.N., Osho, G.S., Anucha, H. (2006). The Impact of oil and gas production on the Nigerian economy: A rural sector Economic model. International Business and Economics Research Journal, 5 (2), pp. 61-75.

World Business Council for Sustainable Development (WBCSD) (2011). Driving success- Human Resources and Sustainable Development, WBCSD, Geneva.