

Research Paper

Paradigm shift from cooperate social responsibility (CSR) to cooperate social investment (CSI): A necessity for environmental sustainability in Nigeria

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ABSTRACT

The practice of Corporate Social Responsibilities (CSR) has been a highly cotemporary and contextual issue to all stakeholders including the government, the corporate organization itself, and the general public in Nigeria. This paper attempts to discuss the interdependence among the environment, organisation and sustainable development and the need for a shift from Corporate Social Responsibility to Corporate Social Investment (CSI) for environmental sustainability with focus on waste management. As organisations must not merely produce products and services to satisfy their numerous clients, they must also produce actions that will ensure the protection of the environment. It is also anticipated to add to the body of knowledge CSI especially as it relates to effective solid waste reduction and environmental sustainability in Nigeria and developing economies.

Key words: Corporate social responsibility, corporate social investment, environmental sustainability, solid waste management, Nigeria.

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INTRODUCTION

Sustainable development which is development that meets the needs of the present, without compromising the ability of future generations to meet their own needs (Brundtland Commission, 1987). Sustainable development poses a challenge to industry to produce higher levels of output using lower levels of input and generating less waste. In the context of the systems theory, the flow of inputs and outputs is the basic start point which describes an organisation. Organisation takes resources (input- human and natural resources) from the larger system (environment), processes these resources and returns them in changed form (output). Thus, organisations are open systems, which receive inputs or energy from their environment, convert these resources into outputs into the environment. As argued by the functionalists and structural – functionalists (Auguste Comte, Herbert Spencer, Talcott Parsons e.t.c) from whom the system theory originates from, any organ (industry) of the body (society) must

contribute towards the maintenance of the organism (Haralambos and Holborn, 2004). Progress towards bringing about a cleaner environment has relied on a philosophy of pollution control. This has involved sometimes costly measures and controversial political decisions. As a result, developing countries, poor communities and financially constrained enterprises have often argued that the environment is an expensive luxury that diverts resources from more productive uses. This perspective is giving way to a new paradigm stating that neglecting the environment can impose high economic and even financial costs, while many environmental benefits can in fact be achieved at low cost (World Bank, 1998).

The principle of The Three Pillars of Sustainability which identified social sustainability, environmental sustainability and economic sustainability as the pillars, says that for the complete sustainability problem to be solved all three pillars of sustainability must be sustainable. Of the three

pillars, the most important is environmental sustainability. If this is not solved, then no matter how hard we try the other pillars cannot be made strong because they are dependent on the greater system they live within, the environment (Wikipedia, 2012). Also, of the four kinds of capital (natural, human, human – made and social), the natural environment which is the natural capital defined as the stock of environment provided assets such as soil, atmosphere, forests, water and wet lands; provide a flow of useful goods and services which are either renewable or non – renewable, marketed or non-marketed (Hicks, 1946).

As fundamentally important social responsibility is, environmental sustainability or maintenance of life-support systems is a prerequisite for social sustainability (Goodland, 1995). Presently, the environment is so heavily used and has now become a major constraint/ limiting factor to much economic development, thereby necessitating a need for its sustainability. Morelli (2011) defined environmental sustainability specifically as a condition of balance, resilience, and interconnectedness that allows human society to satisfy its needs while neither exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs nor by our actions diminishing biological diversity. Daly (1990), one of the early pioneers of ecological sustainability, looked at the problem from the viewpoint of maintenance of natural capital, and proposed that:

- a. For renewable resources, the rate of harvest should not exceed the rate of regeneration (sustainable yield).
- b. For pollution, the rates of waste generation from projects should not exceed the assimilative capacity of the environment (sustainable waste disposal); and
- c. For non - renewable resources, the depletion of the non - renewable resources should require comparable development of renewable substitutes for that resource.

Environmental sustainability is about making responsible decisions that will reduce your business' negative impact on the environment. It is not simply about reducing the amount of waste you produce or using less energy, but is concerned with developing processes that will lead to businesses becoming completely sustainable in the future. It forces businesses to look beyond making short term gains and look at the long term impact they are having on the natural world. You need to consider not only the immediate impact your actions have on the environment, but the long term implications as well. For example, when manufacturing a product, you need to look at the environmental impact of the products entire lifecycle, from development to disposal before finalising your designs.

Presently there is a growing interest on environmental issues and advocacy especially in Nigeria, with researchers and scholars issues of discourse centred on management, protection, pollution control, etc. and rarely discussing environmental issues and corporate social responsibility

(Okafor et al., 2008). Organisations must not merely produce products and services to satisfy their numerous clients, they must also produce actions that will ensure the protection of the environment. Therefore, this paper attempts to discuss the interdependence among the environment, organisation and sustainable development and the need for a shift from corporate social responsibility to corporate social investment for environmental sustainability with focus on waste management.

CORPORATE SOCIAL RESPONSIBILITY

Corporate Social Responsibility (CSR), as a late twentieth-century American movement, is a modern manifestation of an ancient debate amongst philosophers and theologians in many lands and cultures about the morality of commerce itself (Hood, 1996). Friedman (1962) argued that business should not and must not deviate from its profit orientation and that it should be concerned only with its economic performance. He supported the notion 'the business of business is business and that to suggest corporations should have a social responsibility is to fail to understand the way in which the market is and must be played'. This view was opposed by Frederick et al. (1998), as they argued that Corporate Social Responsibility balances power with responsibility, responds to public needs and expectations and can contribute to correcting societal imbalances implicit in most economies.

There are as many definitions of CSR as there are writers leaving the construct fuzzy and open to conflicting interpretations (Windsor, 2001). The EU Green paper defines Corporate Social Responsibility (CSR) as a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment (Van Marrewijk, 2003). McWilliams and Siegel (2001) define it as actions that appear to further some social good, beyond the interests of the firm and that which is required by law. The practice of CSR is not new, as it could be traced back to such examples as the Quakers in 17th and 18th centuries whose business philosophy was not primarily driven by profit maximisation but by the need to add value to the society at large – business was framed as part of the society and not separate from it (Moon 2002).

CORPORATE SOCIAL INVESTMENT

Corporate social investment (CSI) originated from philanthropy when the value it added to the reputation of the organisation was recognised. Previously, the terms CSI and CSR were used interchangeably, but have now been defined separately. While CSR refers to an organisation's total responsibility towards the business environment in which it operates; CSI a sub-component of CSR aims to uplift communities in such a way that the quality of life is

generally improved and safeguarded. CSI encompasses projects that are external to the normal business activities of a company and not directly for purposes of increasing company profit. These projects have a strong developmental approach and utilise company resources to benefit and uplift communities and are not primarily driven as marketing initiatives. For some companies, CSI is a relatively new notion that is only attracting management's attention. While for others, it is not only a familiar concept, but has been actively supported and refined over several decades. Because of its increasingly recognized valuable role, there has been a discernable change to companies' approach and in the range of companies embracing social investment (Rockey, 2004). Although Rocky (2005) defines CSI as any social development activity that is not undertaken for the purpose of generating business income. CSI have been shown to enhance company's corporate image by aligning companies with industry charters, generate new business ideas, generate inquiries and research about business operations, and ultimately return on investment by attracting and retaining investors, clients and employees (CSI Solutions, 2012).

There is a growing academic literature discussing voluntary investments by corporations aimed at improving environmental performance, along with rising instances of corporate voluntary environmental investments in recent years. Motivations for such activities include corporate image building, regulatory pre-emption, and production cost savings. While some of these investments arise from industry attempts to set environmental standards where none currently exist, many investments seem to be aimed at reducing the costs of complying with existing regulations, and the so called "win-win" hypothesis of environmental investment (Segerson and Li, 2000; Lyon and Maxwell, 2004). An example is the PepsiCo waste program at Frito – Lay North America, where starch a by – product of slicing potatoes which was relegated to sewer system costing the company about 2 million US Dollars for processing, is presently recovered and sold for about 9 million US Dollars a year where it is used in paper making, pharmaceuticals and other uses (PepsiCo, 2010). Also, the Coca Cola joint venture project with ECO Plastics Ltd UK described as "innovative partnership" in the establishment of Continuum Recycling Ltd Plant facility in Hemswell. The plant, said to be the world's largest plastics recycling facility, will be capable of reprocessing 150,000 metric tons of mixed plastics a year, including 40,000 metric tons of bottle-grade PET (Champ, 2012). This enabled the recycling of 10.5 million clear plastic bottles collected from the London 2012 Olympics and Paralympics Games within six weeks of disposal, resulting in production of 42 million new bottles of 25 percent rPET (recycled polyethylene terephthalate), thereby avoiding 290 tonnes of waste to landfill and saving an estimated 310 tonnes of carbon. This has also created employment (Spinner, 2012).

As corporate social investment is not as defined - the

return is often difficult to measure because of its long-term nature. This has brought about the need to identify and set appropriate intermediate goals en route to the broad objective of environmental sustainability. These might usefully take the form of performance indicators, which might be quantitative or more qualitative (Rockey, 2004). A good example of this is the Sony formulated Green Management 2015 which came into effect in 2011 for the monitoring of environmental activities of Sony Group Companies and Divisions worldwide until 2015. The Sony Corporation globally initiated "Road to Zero" Campaign targeting a Zero Environment Footprint by 2050 through the addressing of the entire Sony product life cycle, with mid – range targets of 50% reduction of waste at non – manufacturing sites such as Sony Australia and a recycling rate of 99% by 2050 (Sony Australia, 2011). Also, Unilever group has announced its goals of reducing its products full life cycle environmental impact by half by 2020, and sourcing 100% of agricultural materials sustainably (30green.com, 2012).

THE NEED FOR CORPORATE SOCIAL INVESTMENT IN NIGERIA

As anticipated, majority of persons interviewed viewed and described the practice of CSR along the lines of philanthropy, with its meaning largely framed to reflect the local realities. In Nigeria and other developing countries where basic human needs and infrastructure (by western standards) are a luxury, CSR was mainly seen from a philanthropic and altruistic perspective – a way of 'giving back' to the society. According to Amaeshi et al. (2006) CSR practice in Nigeria would be aimed towards addressing the peculiarity of the socio-economic development challenges of the country (e.g. poverty alleviation, health care provision, infrastructure development, education, etc) and would be informed by socio-cultural influences (e.g. communalism and charity). As a result they might not necessarily reflect the popular western standard/expectations of CSR (e.g. consumer protection, fair trade, green marketing, climate change concerns, social responsible investments, etc). This has resulted in the environment being the victim of neglect as their CSR actions do not address the damage and hazards created by their operations and products on the environment. Also, Babalola (2012) observed that profitable organizations in Nigeria do not invest much in corporate social responsibilities.

Environmental sustainability which is the most important pillar of sustainability has over the years been ignored by the corporate society in Nigeria, with their focus on social responsibility. This neglect has resulted in their social responsibility activities not achieving the desired impact. A look at the current issues addressed by CSR in Nigeria as shown in Table 1; reflects a zero concern for the core

Table 1. Current issues addressed by CSR practice in Nigeria.

Current Issues Addressed	Percentage %
Education (Including training and skill development)	40
Provision of Health care	35
Infrastructure development	29
Sports/ Arts and Culture	28
Poverty Alleviation	12

Source: Field work (2012).

Table 2. Assessment of CSR practice in Nigeria.

Current Issues Addressed	Percentage %
Education (Including training and skill development)	46
Provision of Health care	38
Infrastructure development	31
Sports/ Arts and Culture	23
Poverty Alleviation	8

Source: Amaeshi et al., (2006).

environment – socially responsible products and processes, and therefore not addressing the environmental damage created by their business operations and products. This correlates with a similar assessment by Amaeshi et al. (2006) on CSR activities by corporate organizations in Nigeria (Table 2), with a slight increase in poverty alleviation. With the economic recession slashing corporate profits and forcing companies to cut cost as much as possible, some of the much vaunted CSR programs of recent years could be quietly shelved.

Furthermore, a look at some of the present activities carried out as CSR under the guise of human capacity development by creating platform for individuals to exhibit their potentials, skills and their empowerment through sponsoring of reality talent shows such as the MTN Project Fame, Nigerian Idol, Nigeria Got Talent etc. by corporate bodies have led to the indirect exploitation of the populace who are requested to support their preferred participating candidate by sending their votes through Short Message Service (SMS) costing 50 naira (32 Cents) each. As a result winners emerge not necessarily on best performance but on the amount of votes gathered; accounting for the observed increase in the sponsorship of Sports/ Arts and culture activities

Also, CSR is not a rule, it is a way of life, a multidimensional philosophy of global governance which one can voluntary subscribe to, has led to the creation of a loop hole for exclusion from participation. The intending passage of CSR Bill by the Government that will make it obligatory for companies to set aside 3.5% of their annual profit for CSR has suffered a stiff opposition from the business community in Nigeria (Corporate Nigeria). The body views the bill as an obnoxious law and another kind of

taxation on corporate bodies as the practice of CSR is voluntary globally, as it is a common belief that CSR initiatives should come from the companies motivated by incentives as opposed to being forced by law (Uba, 2009). Therefore paradigm shift from CSR to CSI is of the necessity now considering the present volume of solid waste and environmental pollution the nation is faced with.

Presently, the country is confronted with the challenge of effective solid waste management whose volume is on the increase daily as most of the soft drinks and beer manufacturers have gone into the packaging of their products in aluminium cans, disposable plastics and non – plastic containers; even when they are aware that the country has no proper disposal method/ program for its solid waste, and no proper strategic process in place to retrieve and recycle them by the companies. Also, with an estimated population of 70 million Nigerians not having access to portable water, selling of packaged water in polythene sachet bags has proved a lucrative business in the country; which has attracted even big multinationals in Nigeria such as Nigerian Bottling Company and Seven –Up Bottling Company Plc to selling packaged water in plastics bottles (Anthony, 2010).

Although the claim of Coca Cola Hellenic Project “The Waste to Wealth” in Nigeria, which established new pet recycling campaign with a major idea of collecting used PET products and to sort them in order to transform them into raw materials which can be applied in manufacturing of pillows, yarn etc. was successful, producing million tons of used PET products (30green.com, 2012). The effect of this project is yet to be seen or felt in many towns and municipal centres in the country as evident in the volume of their PET bottles littering the streets and present at dump

sites. According to the Nigeria Bottling Company, they have a PET recycling initiative in place, which have been executed for the last five years in conjunction with Coca Cola Nigeria Ltd. and their recycling partner Alkem Nigeria Ltd., with about 17 collection centres across the country (Anthony, 2010). This also is very small when compared to the geographical spread of their products and volume of waste generated.

RECOMMENDATION

Policy framework and regulation

The environmental arena has seen a fundamental shift from the regulatory paradigm of 'command and control' - single-medium, end-of-pipe regulation, incrementally enforced through inspectorates, the courts and penalties; to one of 'integrated pollution control' with pollution prevention from the outset, promoted through market incentives and innovative rehabilitation bonds. Similarly, the social arena has moved from the paradigm of 'do no harm' to that of 'net positive development benefit' (Alyson, 2001).

According to Amao (2008), while CSR practice by Multinational Corporations/ Companies Nigeria is becoming well entrenched, there is a general perception that home jurisdictions in vulnerable areas are powerless when it comes to the control of multinational corporations, and therefore the need for a corresponding development of an effective minimum institutional framework at the domestic level with the capacity for the effective control of their activities. Policy framework should be designed for corporate social responsibilities in Nigeria by the government and ensure compliance by setting mechanisms and institutions for the implementation (Babalola, 2012).

There is need for Government to mandate and encourage firms and organizations in the country to formulate and develop fiscal policies centred on green production and targeting a zero environmental footprint, which will serve as a performance indicator for their environmental activities and will be subject to review and monitoring. Welford and Strachan propose that organisations should design environmental policy which would identify key performance areas and form a sound basis for setting corporate objectives. The scholars posed ten questions, answers to which will provide the organisation the basis of a strategic plan for the environment. Some of the questions include:

- a. Is the organisation meeting its environmental commitments?
- b. Is concern for the environment integral to each of the organisation's operations?
- c. Do managers and workers see environmental improvement as a goal and in what ways are personnel

being encouraged to be more involved?

- d. Are there new product opportunities that the organisation could exploit which would have less negative environmental impact? (Welford and Strachan, 2005)

Consumer behaviour has a say in the sustainability impacts that products have throughout their life cycle on the environment. This behaviour can be influenced and changed when there is a provision for some kind of incentive for them in the developed programs and policies such as having to pay less for products and save energy utilization; it can also be induced through quality of products (Tang and Bhamra, 2009). Industry funded programs such as 'Every Can Counts', 'Aerofoil' and most recently "Metal Matters" in the United Kingdom have not only increased capture rates for drink cans away from the home and kerbside recycling rates for other metal packaging; they are delivering a real shift in consumer behaviour leading to increased capture rates for all materials with the Government achieving a recycling rate of 60% for drink cans in 2011 despite the growth of sales of drink cans and an increase in amount of aluminium packaging in the market (Alupr, 2012).

Legislation

The role of legislation in inducing responsible attitudes and behaviours towards the environment cannot be overlooked, as it serves as an effective instrument for environmental protection. Whichever way environmental degradation may be categorised, it is glaring that most environmental damage is the resultant effect of industrialisation. Industrialisation can be economically harmful when guided by less stringent environment protection regulations (Okafor et al., 2008). As observed, the multinationals in Nigeria vigorously pursue the implementation of their environmental policy framework through investments in environmental friendly technologies and processes in countries where their legislated laws and environmental policies reflect the present challenges on environmental sustainability. With the country having over 20 legislated Acts encompassing all sectors of production having to do with the environment and policies on environmental management e.g. Federal Environmental Protection Agency Act 1988; the Harmful Waste (special criminal provisions) Act of 1988; the National Policy on the Environment 1989, etc. (Environmental Law Research Institute, 2011). Laudable as they seem to be theoretically, it leaves little to be desired as the provisions enshrined in the various instruments of intervention are rarely enforced and they do not really address the present challenges and issues on environmental sustainability.

Legislation should push toward reviewing and restructuring of non - compliance penalties. There is need for a legislation mandating companies/ industries on

environmental responsibility especially those whose products or by-products contribute largely to the bulk of the finished waste in the country. These laws will not only aim at requiring industries to contribute to waste management through the payment of environmental levies; it will go further in ensuring that there is a periodical review and monitoring of technologies used for production in industries to reduce waste generation and environmental pollution. As an effective means of environmental management is the reduction in the amount of pollutants released into the environment especially at the production and generation. Also when the waste generated is due to fall-outs of packaging such as paper cartons, plastic bottles/containers etc., it will be mandated on the industries to design programs aimed at withdrawing these packaging materials before they reach dump sites. This will drastically reduce the amount of solid waste to be handled by various waste management authorities.

Research and development

With the paradigm shift from a “do no harm” approach to a “demonstrative positive development benefit imperative”, brings along with it new roles and responsibilities for business/ organizations that need to be explored. Therefore investing in Research and Development is of the necessity. By investing in Research and Development, the company accepts risky investments to develop new approaches, and it puts into play a part of the corporation with its identity and success bound up with the development of those new approaches rather than with incremental improvements to existing processes (Scott, 1995). With the Government desirous of further reductions in toxic by-products of industry and concerns about environmental problems, then policy instruments that increase investment environmental research and development are needful.

Public policy can affect corporate investments in environmental research and development, as it is needed to make public use of the private corporate interest in such investment. Policies such as pre-innovation periodic taxes – which is the tax that would be paid until a firm developed or acquired innovations that achieved desired environmental performance (Scott, 1995) and more stringent regulatory expectations – provide ways to cause corporations to internalize the environmental damage costs and find it in their self-interest to do more environmental research and development. Investment in environmental research and development will increase in response to the policies and long as the tax and the standard are not so severe that profits are negative given the optimal levels of production and investment in research and development (Scott, 2003).

This will also be of benefit to universities and research institutions in the country as they will be able to access more funds and sponsorship for research in developing technologies and products that will address the present

environmental challenges. Also, the “Cradle to Cradle” design which is a biometric approach to the design of systems and is based on a system of “lifecycle development” (William and Michael, 2002) is an option which need to be explored especially in the design and modelling of industries. As it is a holistic economic, industrial and social framework seeks to create systems that are not just efficient but essentially waste free (Lovins, 2008). An example is the PlantBottle™ created by the research and development team of the Coca Cola; which is the first ever fully recyclable PET bottle made partially from plants. This has enabled the elimination of more than 60,000 barrels of oil and an annual emission of more than 100,000 metric tons of carbon (IV) oxide in 2010 (Coca Cola Company, 2012).

There is need for the Government to also step in and invest more in research and development, and also establish industries/ facilities that will utilize these recent technologies in recycling waste generated from packaging. This will act as a buffer to Small and Medium Scale Enterprises (SMEs) who do not have the financial capacity to invest in the establishment of such facilities like the multinational, but share similar mode of packaging products. This investment will lead to the creation of jobs and a sustainable environment as waste hitherto left to their fate at landfills and dumpsites will be reclaimed.

CONCLUSION

One of the major goals of environmental regulation from the inception has been to reduce environmental pollution; there have been no clearly established, coordinated policy framework and standards for attaining such goal especially through resource pricing, incentives and taxes. rather, heavy reliance has been placed on qualitative legal rules. This has necessitated the need for a paradigm shift to CSI as the benefits of clean environment would be available only if the generators of pollutants are encouraged to invest in pollution prevention and abatement technologies with the help of a judicious mix of regulatory policies, economic incentives and fiscal instruments thereby working towards environmental sustainability through solid waste management and creating jobs in Nigeria.

REFERENCES

- Aluminium Packaging Recycling Organization (Alupro), (2012). Aluminium Packaging Recycling Rate Hit Record in 2011. June 18, 2012. www.alupro.org/uk/aluminium-recycling-new. Accessed October 25, 2012.
- Alyson W (2001). *Corporate Citizenship and Corporate Social Investment: Drivers of Tri – Sector Partnership*. Sheffield: Greenleaf Publishing, 57 – 73.
- Amaeshi K, Adi B, Ogbachie C, Amao O (2006). “Corporate Social Responsibility in Nigeria: Western Mimicry or Indigenous Influences?”. No. 39-2006, ICCSR Research Paper Series – ISSN 1479 – 5124, The University of Nottingham, pp. 4:17-25.

- Amao O (2008). Corporate Social Responsibility, Multinational Corporations and the Law in Nigeria: Controlling Multinationals in Host States. *J. Afr. Law* 52(1):89-113.
- Anthony O (2010). Nigeria's Street of Pollution. *Business Day*. Wednesday 29, December 2010. www.businessdayonline.com. Accessed October 25, 2012.
- Babalola YA (2012). The Impact of Corporate Social Responsibility on Firms' Profitability in Nigeria. *Eur. J. Econ. Finan. Admin. Sci.* 45:39-50
- Champ H (2012). Major recycling plant opens in England. *Plasticsnews.com*. Posted May 11, 2012. www.plasticsnews.com/headlines2.html?id=25426. Accessed December 21, 2012.
- CSI Solutions (2012). *The What and Why of CSI*. www.csisolutions.co.za/why-csi.php. Retrieved October 24, 2012
- Daly HE (1990). Toward some operational principles of sustainable development. *Ecol. Econ.* 2:1-6.
- Environmental Law Research Institute (2011). A synopsis of laws and Regulation on the Environment in Nigeria.
- Friedman M (1962). *Capitalism and Freedom*. Chicago: University of Chicago Press.
- Frederick WC Davis, K, James EP (1988). *Business and society: Corporate Strategy, Public Policy, Ethics*. 6th ed. New York: McGraw-Hill.
- Goodland R (1995). The Concept of Environmental Sustainability. *Ann. Rev. Ecol. Syst.* 26:1-24
- Haralambos M, Holborn M (2004). *Sociology: Themes and Perspectives*. Collins, London.
- Hicks JR (1946). *Value and Capital*. Oxford: Clarendon. p. 446.
- Hood JM (1996). *The Heroic Enterprise: Business and the Common Good*. London: The Free Press.
- Lovins LH (2008). Rethinking production in *State of the World 2008*, pp. 38-40.
- Lyon TP, Maxwell JW (2004). *Corporate Environmentalism and Public Policy*. Cambridge, UK: Cambridge University Press.
- McWilliams A, Siegel D (2001). Corporate social responsibility: A theory of the firm perspective. *Acad. Manage. Rev.* 26(1):7-127
- Maxwell JW, Decker CS (2006). Voluntary Environmental Investment and Responsive Regulation. *Environ. Resour. Econ.* 33:425-439
- Moon J (2002). Corporate Social Responsibility: An overview. In *International Directory of Corporate Philanthropy*. London: Europa pp. 3-14.
- Morelli J (2011). Environmental Sustainability: A Definition for Environmental Professionals. *J. Environ. Sustain.* 1:19-27
- Okafor EE, Hassan AR, Doyin-Hassan A (2008). Environmental Issues and Corporate Social Responsibility: The Nigeria Experience. *J. Hum. Ecol.* 23(2):101-107
- PepsiCo (2010). *Performance With Purpose: The Promise of PepsiCo*. Sustainability Summary 2010.
- Rockey V (eds) (2004). *The CSI Handbook*. 7th ed. Cape Town, South Africa: Trialogue Publications.
- Scott JT (1995). "The Damoclean Tax and Innovation," *J. Evol. Econ.* 5(1):71-89.
- Scott JT (2003). *Environmental Research and Development: US Industrial Research, the Clean Air Act and Environmental Damage* Northampton: Edward Elgar Publishing.
- Segerson K, Li N (2000). 'Voluntary Approaches to Environmental Regulation', in Polmer, H. and Tietenberg, T. eds., *The International Yearbook of Environmental and Resource Economics*, Dordrecht: Kluwer.
- Sony Australia Limited (2011). *Australian Packaging Covenant. Action Plan 2012 - 2015*. May 2011.
- Spinner J (2012). Coca-Cola's Olympic effort recycles 1 million bottles. *Packaging Digest*. Posted on October 2, 2012. http://www.packagingdigest.com/article/522515-Coca-Cola_s_Olympic_effort_recycles_1_million_bottles.php. Accessed December 21, 2012
- Tang T, Bhamra TA (2009). Understanding Consumer Behaviour to Reduce Environmental Impacts through Sustainable Product Design. In: *Undisciplined! Design Research Society Conference 2008*, Sheffield Hallam University, Sheffield, UK, 16-19 July 2008.
- The Coca Cola Company (2011). *Sustainable Packaging - 2010/ 2011 Sustainable Report*. www.thecocacola.com/sustainabilityreport.html. Accessed October 25, 2012.
- Uba C (2009). Nigeria Firms battle CSR Bill. *Business World*, Published June 15, 2009. www.businessworldmag.com.
- Van Marrewijk M (2003). Concepts and Definitions of CSR and Corporate Sustainability: Between Agency and Communion. *J. Bus. Ethics* 44:95-105
- Waste Management World (2012). Coca Cola Recycles 10.5 million PET Bottles from Olympic Venues. 02 October, 2012. www.wastemanagementworld.com/recycling/2012/10.html. Accessed 28 October, 2012
- Welford R, Strachan PA (2005). Environmental issues and corporate environmental management. Pp. 551 - 604. In: *Management: Concepts and Practices*. Hannagan, T. (Ed.). Prentice Hall, London.
- Wikipedia (2012). *The Three Pillars of Sustainability*. <http://en.m.wikipedia.org/wiki/Sustainability>. Retrieved October 20, 2012
- William M, Braungart M (2002). *Cradle to Cradle: Remaking the Way We Make Things*. North Point Press. ISBN: 9780865475878
- Windsor D (2001). The Future of Corporate Social Responsibility. *Int. J. Organ. Anal.* 9(3):225-256
- World Bank (1998). *Pollution Prevention and Abatement Handbook, Toward Cleaner Production*, The World Bank Group in Collaboration with UNEP and UNIDO, IBRD/The World Bank, Washington DC, USA.
- World Commission on Environment and Development (The Brundtland Commission, 1987). *Our Common Future*. Oxford: Oxford University Press.
- 30green.com (2012). Coca Cola Hellenic Setting Example in Recycling and Reusing PET Bottles. www.30green.com/recycle-and-reuse/coca-cola/ Friday, May 25, 2010. Accessed October 30, 2012.

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