Conceptualizing a credits trading approach towards corporate social responsibility credits

Shantesh Hede^{a*}, Paula Varandas Ferreira^a, Manuel Lopes Nunes^a, Luis Alexandre Rocha^b

^a Center for Industrial and Technology Management, University of Minho, Guimarães, Portugal ^bDepartment of Industrial Electronics, University of Minho, Guimarães, Portugal *<u>Corresponding Author:</u> Shantesh Hede, email:shanteshhede@gmail.com

Abstract

Life Cycles of both products and services significantly consume renewable and non-renewable resources across a worldwide scale. Thus, eliciting an enormous environmental impact, that is known to disproportionately instigate crises into the socio-economic and political domains of our civilization. Therefore, Creation of Shared Value and Corporate Social Responsibility (CSR) have been considered by Policy makers, Public and Private Institutions. In addition to Corporate Philanthropy, CSR practices also encompass a wide spectrum of activities, including Stakeholder safety/welfare, designing sustainable products and ecological restoration to name a few which are ascertained to capital and knowledge intensive in nature. Therefore, this paper primarily structures the scope of CSR and proposes a mechanism for trading Corporate Social Responsibility credits in order to incentivize stakeholder centered business practices. Furthermore, the CSR credits trading methodology would entail similar mechanisms used by its remotely successful predecessors namely, tax incentives, tradable credits/certificates and flexible mechanisms for implementing sustainable projects. The CSR credits trading methodology is envisioned to entail a more holistic approach towards overall Sustainability when compared to Carbon Offsets/Renewable Energy Certificates which are more focused towards reducing the environmental footprint.

Keywords: Sustainability, Corporate Social Responsibility, Credits Trading.

1. Introduction

A Corporate Social Responsibility (CSR) endeavor(s) in an Enterprise is to accommodate social, environmental and ethical considerations towards its Stakeholders within the Business Operations and Strategic Initiatives. Stakeholders include and are not limited to the Enterprise's human resources, end-users, customers, regulatory bodies, suppliers, distributors, manufacturers, development collaborators, shareholders, remote/distant communities, Government(s).

The underpinnings of contemporary Economic Principles authored by Alfred Marshall which is further founded upon Adam Smith's seminal works, The Theory of Moral Sentiments (1759) and The Wealth of Nations (1776). Smith's advocacy of the 'Invisible Hand' which realizes the self regulatory nature of markets, when Businesses act in their self interests only in favor of their shareholders resonated with Freidman's description of Free Market Economy. In contrast, Joseph Stiglitz, 2008 stated that in the era of Globalization where environmental, social and economic externalities of business activities are more systemic in nature, which would eventually lead to a 'Tragedy of the Commons' scenario. Moreover, as discussed in Adam Curtis' BBC Documentary, the century of Self in 2002 about the rise in consumerism and commodification in recent decades has not only posed ethical questions on their social impacts; nevertheless has resulted in exploitation of natural and non-renewable resources leading to environmental degradation and instigating geo-political crises (Parenti, 2011). This aspect has been re-iterated by Mathis Wackernagel et al. from the Global Footprint Network that the global ecological stability is the fundamental underlying wealth which upholds other forms of wealth generation activities.

Presently, the standards of social sustainability (SA8000 standard); Environmental Management (ISO 14000); Life Cycle Analysis (ISO 14043) and Economic performance (ISO 9000 family) remotely encompasses Corporate Social Responsibility. Moreover, the ISO 26000 only offers guidelines for CSR without any requirements and certification. Similarly, the United Nations has established Triple Bottom Line and Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR) guidelines. The major impediment in formulating robust legislations and standardization norms is owing to the scope of CSR endeavors that encircles a wide spectrum of intricately detailed activities ranging from ecological restoration, employee engagement, community welfare programs and philanthropic donations. These diverse paradigms entail metrics that are inter-related either by strong or weaker co-relations posing a major impediment in order to specifically outline the CSR endeavors. For instance, the impact of releasing toxic emissions (environmental) on the health of a community (social) and income distribution at state-level (economic).

Corporate Social Responsibility has been identified by critics as more of a window dressing and lip service by Corporations to project a positive public image. From the critics' perspective, they essentially referred to Businesses of substantial profitability with controversial social impacts, which include but not limited to the Tobacco Industry, Weapons Manufacturing, Retail Giants, Large sized Agro Businesses and Processed Food Industry.

Porter and Kramer, 2006 stated that Enterprises focusing towards Creating Shared Value Approach that emphasizes the significance of human capital, replenishment of resources and efficient government. This approach is anticipated to improvise income distribution and eventually leading towards wealth generation. Moreover, detailed studies have proved a positive correlation between Corporate Social Responsibility and the aforementioned outcomes (D'Alessandro et al., 2009). For instance, over 40 years Nestle by virtue of technology transfer developed infrastructure in the Moga region of Northern India. The infrastructure resulted in the establishment of many local dairies and substantial growth in milk collection under expert guidance. The outcome was a steady supply of basic commodity, improved income distribution and overall standard of living.

The objective of the paper is to recommend Enterprises, to venture beyond the 'Marketing Strategy' and 'Cheque Book Philanthropy' attribute of Corporate Social Responsibility, so as to engage with the society and the ecosystem for a long term sustainable future.

2. Shortcomings of Carbon Offsets and Renewable Energy Certificates Trading

a) Reduction in emissions or switching to renewable energy alone does not lead to climate change mitigation. Meanwhile, stabilization of the biogeochemical cycles (eg: water and oxygen cycles) and restoration of damaged ecosystems is ascertained to be far more effective (Fischer, 2011; Costanza et al., 1993). Moreover, critics have pointed out the 'quick fix approach' of Enterprises participating Clean Development Mechanism (CDM) Projects which ultimately has not demonstrated a convincing magnitude of tangible outcome (Smith, 2007 Carbon Neutral Myth). On the contrary certain emission offset projects have excluded the role of the stakeholders in developing nations and in certain cases have even encroached on their means of subsistence.

b) The CDM initiative does not explicitly outline socio-economic sustainability and fails to address environmental stability in a holistic manner due to its complex nature (Costanza et al., 1993). On the other hand, there are stringent regulations and rigorous monitoring techniques that could discourage parties in developing nations; mainly owing to their lack of infrastructure and expertise to materialize CDM collaboration. As mostly the poorest of the nations (eg: Haiti) encounter these problems and hence are excluded because parties from developed nations choose their counterparts in host nations that provide lower costs for operation and implementation (eg: China and India). Moreover, determining the baseline scenarios or alternative baseline scenarios for evaluating additionality is considered as an exhaustive procedure, eventually leading to substantial transaction costs (Gillenwater & Seres, 2011). Concurrently, the risk of "leakage" and "permanence" has always required strict vigilance and commitment of more technical resources.

c) There exists the factor of perverse incentives which could be either in the form of creating more emissions to be destroyed later for gaining credits and 'rent seeking' in the regulatory framework for eliciting additionality.

3. Co-relating Corporate Social Responsibility and the Credits Trading Approach

In early 2010, the Corporate Affairs Minister of the Indian Government, Mr. Salman Khurshid discussed the importance of quantifying Corporate Social Responsibility initiatives to enable a credits trading approach. Moreover, the aforementioned shortcomings denote the need for a more holistic approach towards delivering socio-economic and environmental sustainability (to be referred as Sustainability here onwards) within the framework outlined as per the market economy approach. As illustrated in Figure 1, Corporate Social Responsibility is categorized into three levels.

The projects that address Class 1 measures are identified to be intensive on the frontiers of knowledge, financial capital, material, human, technological and planning. Therefore, in order to mitigate the resource intensive nature for encouraging investors, only the Class 1 measures are to be considered for the credits trading approach. The authors intend to clarify that the approach is more on the similar lines of Renewable Energy Certificates (RECs) that provides a production and installation subsidy as opposed to Carbon Offsets (EPA, 2010). For instance, a retail store cannot purchase CSR credits to offset the poor working conditions and maltreatment of its employees. Accordingly, parties interested in purchase-sale of CSR credits are required to adhere to Class 2 measures.

Meanwhile, Class 3 measures such as philanthropy possess minimal credibility of tangible contribution towards stakeholders' well-being and hence are assigned in the lowest rank of Figure 1.

Class 1 Corporate Social Responsibility (Applicable for issuing credits/certificates):

a) Sustainable Business Practices that contribute to socio-economic growth and ecological stability.

- b) Forming partnerships with Government(s), Non-Profit Entities and Non-Governmental Organizations via engagement with stakeholders in order to build and improve Infrastructure.
- c) The endeavors promoting and maintaining Ecological Integrity should include and are not limited to the implementation of robust technologies for stabilizing bio-geochemical cycles. For example: Carbon Capture and Utilization, Large scale Industrial Ecology and Ecological Destantian Desarrance Waste Treatment throughout Life Cycle

Restoration Programs, Waste Treatment throughout Life Cycle.

<u>Purchasers</u>: Universities, Private Enterprises, Governments, Public Institutions, Individuals, Non-Profits <u>Outcome</u>: Creation of new knowledge, growth in quality/quantity of human capital, ecological stability, improvement in income distribution and employment statistics, easier access to natural and renewable

resources, long term strategic and competitive advantage coupled with enhanced reputation.

Class 2 (Compulsory and Pre-requisite for buying and selling Credits/Certificates):

a) Risk Management via Regulatory Compliance for Safety and Welfare of Stakeholders

b) Adherence to Human Rights (Universal Declaration of Human Rights) and Acknowledgement for Democratic framework of the Host nation.

c) Tangible contribution towards a Nation's Social and Economic Rights Fulfillment Index.

d) Access to information and transparency between Enterprise and Stakeholders.

e)Engaging and rewarding employees for in devising sustainable business practices.

f) Avoiding participation or supporting any form of Genocide, including cultural. For example: United Nations Declaration on the Rights of Indigenous Peoples)

g) Upholding the Ethics for the Freedom of Press.

Outcome: Strengthening relation with Value Chain Partners, increase in positive image, reducing

Operational Risk, Employee loyalty, reduced probability of litigation.

Class 3: Philanthropy and Medium Scale Community Welfare Programs

<u>SOURCE</u>: Business Leaders Initiative on Human Rights- A Guide for Integrating Human Rights into Business Management.

Committee of Sponsoring Organizations of the Treadway Commission, Enterprise Risk Management-Integrated Framework, 2004.



Figure 1: Categorizing Corporate Social Responsibility

The RECs and Carbon Offsets are quantified in terms of their units in megawatt-hours and tones of emissions, respectively. However, as discussed previously, the comprehensive nature of CSR cannot be quantified to a singular unit and accordingly, the credit or certificate valuation could be inspired from the valuation technique used for stock prices. Moreover, in addition to an Enterprises' financial performance, the price of the CSR credit would be governed by the Enterprises' adherence towards Class 2 measures, scope of the selected Class 1 measures, supply and demand of the credits and the sustainability related outcomes of the selected Class 1 measures.

The valuation methods should also consider approaches stated in domains of Ecological Economics(Costanza et al., 1998; Xepapadeas, 2008), Social Accountability, Cost Benefit Analysis and Thermoeconomics (Valero et al., 2010; Gutowski et al., 2009) to name a few. Although, assigning a financial value to CSR outcomes is inherently myopic in nature; nevertheless, these are 'most suited' methods of analytical tools to reconcile dynamics of a market economy approach towards Sustainability which is centered on mainstream economics and the complex dynamics of our ecosystem (Ramjerdi, 2008).

4. Structuring the Trading Mechanism for Corporate Social Responsibility Credits

The authors recommend that the Credits Trading Approach of Corporate Social Responsibility should commence as an Initiative under the Clean Development Mechanism Executive Board of the Kyoto Protocol and United Nations Framework on Climate Change. These institutions possess comprehensive experience in project planning/finance and diversified learning curves for implementing rigorous evaluation techniques; thus leading to higher certainty of investments.

Firstly, a majority of the Class 1 measures for Ecological Stability bears some resemblance with the emission reduction CDM projects. Secondly, the CSR credits initiative would need to collaborate with the International Labor Organization and UNO's Social Sustainability initiative to effectively monitor the adherence of Human Rights at the premises of the Projects as well as the Enterprises (Figure 2). A remarkable example is the ILO initiated Garment Sector Project in Cambodia to monitor human rights of workers and managers as a part of the US-Cambodia textile Agreement. Furthermore, it is essential that the participating Enterprises and institutions should conform to the highest form of ethical and moral standards; wherein an Enterprise from a developed nation should not intimidate a developing nation by virtue of economic strength, technological prowess and geo-political clout. As this would constitute of 'rent seeking' via 'resources and information asymmetry' (Klein, 2007).

5. Prospective Challenges and Roadblocks in implementing the Credits Trading Approach for Corporate Social Responsibility

There exists a risk of implementing vague and ambiguous guidelines for the each of the three facets of Sustainability for the various Class 1 projects occurring simultaneously; thus leading to repeated revisions in the guidelines. Moreover, the CDM would entail additional burden of monitoring of socio-economic facet of Sustainability which would eventually result into a more multiple-step rigorous evaluation procedure further skyrocketing the transaction costs (Gillenwater & Seres, 2011). Furthermore, there can be lengthy legal proceedings for assigning the liabilities between various participants and the grey debatable areas may result in a harmful status-quo for the stakeholders (Sacconi, 2004). The inclusion of CSR credits within CDM would not exclude it from the inherent incompatibilities of CDM with international trade agreements namely, GATS (General Agreement on Trade in Services) and GATT (General Agreement on Tariffs and Trade).



I. Project Planning and Development

Enumerating the Best Practices for success in Class 1 CSR Projects

- Planning attainable schedule and time horizons
- Empowering local governments for transparency and effective administration
- Using the Land resources as an integrative planning tool
- Developing robust monitoring systems with an ecological approach
- Considering risks pertaining to natural disasters, political crises, market dynamics, price fluctuations of essential commodities and civilian problems.
- Vendors and Contractors should be evaluated for their Performance History, Expertise, Certifications/Licenses and Pre-existing Financial/Legal Liabilities.

Figure 2: Class 1 CSR Projects under CDM and Kyoto Protocol

As Gunawansa & Kua, 2011 discussed, even though these trade agreements do not permit discrimination of enterprises based on their nationality; nonetheless, the Kyoto Protocol does segregate on the basis of history of compliance with emission standards and nationality. Similarly, a collaboration may not occur between potential enterprises from developed or developing nations solely on the basis of their WTO (definition) memberships, acceptance of Kyoto protocols and diverse geo-political objectives. Moreover, a developing nation may exclude investment from an enterprise of a developed nation by the monopoly exclusion stated in GATS, so as to maintain the monopoly of its domestic player(s). Thus delaying the introduction of new technology which could have actualized some form of economic progress in the recipient nation.

Owing to the two laws of thermodynamics, the projects encompassing ecological restoration, stabilization of biogeochemical cycles and Industrial Ecology may not result in 100% effectiveness (Valero et al., 2010). Therefore, resulting in entropy (waste heat and unusable matter) that would threaten the ecological integrity. Furthermore, the adjustments of the baseline scenario by the Kyoto Protocol due to limitations in technology, materials and expertise of the participating enterprises may result in these enterprises profiteering from the trading activities, while the integrity of the ecosystem would continue to be compromised (Gutowski et al., 2009). In contrast to financial debt crises, the irreversible ecological debt might be almost impossible to pay-off (Srinivasan, UT et al., 2008). This facet exemplifies the disparity between the dynamics of mainstream economics and ecological stability, further explaining the diminished ability of market economy to explicitly accommodate Sustainability owing to its complex nature (Costanza et al., 1993).

The experts, who provided their feedback, unanimously agree to the aforementioned challenges and impediments, in addition to the ethical and philosophical facets of credits trading approaches in general. Similarly, exerts pointed out at the potentially un-surmountable challenge of evaluating overall Sustainability and simultaneously harmonizing a diverse set of social and ecological sustainability activities, which could range from building sanitation facilities in villages and stabilization the nitrogen cycles. Moreover, the experts raised concerns on the voluntary and mandatory nature of CSR measures by certain governments; as in their experience the CSR regulations are identified to possess a multitude of loopholes. As a result, some experts recommend eliminating the concept of a private corporation. Meanwhile, other experts strongly feel that CSR measures are 'window dressing endeavors' and credits trading

approaches are usually futile attempts towards sustainability and in some cases are far more destructive.

6. Concluding Points

The resource intensive nature and long project cycles of Class 1 measures may encourage Small Medium Enterprises and Large companies to profit solely from trading CSR credits. This would lead to Class 1 project participants to label such parties as 'free riders'. Moreover, the Class 1 project participants would eventually gain substantial knowledge and tangible resources (monetary and material); thus leading to an Oligopoly structure that disproportionately favors them, competitively and strategically.

Unfortunately, the CSR credits trading approach is also vulnerable to an economic crises as in the case of RECs, to lose tax rebates and other government subsidies. Moreover, Businesses with negative social externalities could indirectly offset their social externalities by virtue of sponsoring R&D projects concerning Class 1 measures. Thus, ironically contributing towards Sustainability. For instance, The United States Department of Defense has started a Climate Change Rebate Program for Fuel Cells which encourage ventures in renewable energy (EPA, 2010).

Scholars and Intellectuals throughout the globe are aware of the time consuming nature for the transition of our global economy from a non-sustainable linear system to a more sustainable closed loop economy that honors the ecosystem dynamics and social welfare. Although, as discussed in the previous sections on the challenges encountered while evaluating the complex nature of ecology and economics; nonetheless these impediments should not deter policy makers and institutions of advanced research to devise robust economic models for attaining overall sustainability.

Furthermore, Emissions and RECs Trading despite shortcomings has provided an Administrative and Legislative (including Enforcement) Frameworks that could act as a scaffold for propagating a series of novel Sustainability programs. Therefore, with respect to the authors' stated objective of this paper, the proposed CSR credits trading is considered as complementary to its two predecessors and views itself as a important juncture within the transition phase of our economy towards a Sustainable Future.

Acknowledgments

The author acknowledges the contribution of MIT Portugal Program, University of Minho and Fundação para a Ciência e Tecnologia (FCT), Portugal (Foundation Of Science and Technology, Portugal) for the scholarship grant SFRH / BD / 33794 / 2009.

The first author has incoporated key recommendations from the following experts: Dr. Koti Sreekrishna, Senior Scientist at P&G; Narayan Srinivasan, Director of Business Intelligence at Academic Partnerships Inc.; Jaineel Aga and Deepak Bawari, Duke University Alumni; Prof. David Primo, University of Rochester and Prof. Robert Clemen, Duke University; Dd. Dipl.-Vw. Malte Kaufmann, The Bucharest Academy of Economic Studies and Prof. Marieta Olaru, Ph. D., The Bucharest Academy of Economic Studies; Richard D. Wolff is Professor of Economics Emeritus, University of Massachusetts, Amherst and Jen Hill, Co-founder and Communications Strategist of Democracy at Work; Dr. Simona Alba Grano, University of Zürich..

The first author also acknowledges his sources of inspiration from the public sphere whose articles, discussions and interviews have espoused thoughts that have directly and indirectly contributed to certain novel ideas in this paper. They are namely, Dr. Ian Bremmer, Eurasia Group; Noam Chomsky, Professors of Linguistics at MIT; Chris Hedges, renowned Pulitzer Prize Winning Journalist; Dr. Vandana Shiva, a renowned environmental activist; Rajiv Malhotra, Infinity Foundation; Dr. Subramanium Swamy, President, Janata Party in India; Prof. Anil Gupta Professor at Indian Institute of Management, Ahmedabad.

References

Costanza, R, Wainger, L, Folke, C, Mäler, KG, 1993. Modeling Complex Ecological Economic Systems. BioScience, 43 (8), 545-55.

Costanza, R, d'Arge, R, de Groot, R, Farberk, S, Grasso, M, Hannon, B, Limburg, K, Naeem, S, O'Neill, RV, Paruelo, J, Raskin, RG, Sutton, P and Van den Belt, M, 1997. The value of the world's ecosystem services and natural capital. Nature, 387 (15), 253-260.

D'Alessandro, S and Fanelli, D 2009. The Role of Income Distribution in the Diffusion of Corporate Social Responsibility. MPRA Paper 18659, Germany: University Library of Munich.

Fischer, A and Levy, M, 2011. Designing environmental restoration programs in politically fragile states: Lessons from Haiti. International Symposium on Harnessing Natural Resources for Peace building: Lessons from U.S. and Japanese Assistance Agenda 2011, Washington, DC, July 20.

Gillenwater, M and Seres, S, 2011. The Clean Development Mechanism-Review of the first international offset program. Pew Center on Global Climate Change.

Gunawansa, A & Kua, H-W, 2011. Some key barriers to technology transfer under the clean development mechanism. International Journal of Technology Transfer and Commercialization, 10 (1), 63 – 80.

Gutowski, TG, Sekulic, DP and Bakshi, BR, 2009. Preliminary thoughts on the application of thermodynamics to the development of sustainability criteria. Sustainable Systems and Technology; Proceedings of IEEE International Symposium, Tempe, Arizona, USA, 18th -20th.

Jayram, S and Thapar, R 2010. Trading credits for Corporate Social responsibility. The Economic Times, 12th January.

Klein, N., 2007. The Shock Doctrine: The Rise of Disaster Capitalism. Metropolitan Books, New York.

Parenti, C, 2011. Tropic of Chaos: Climate Change and the New Geography of Violence. Nation Books, New York.

Porter, M and Kramer, M, 2006. The Link Between Competitive Advantage and Corporate Social Responsibility. Harvard Business Review, Cambridge, Massachusetts.

Ramjerdi, F, 2008. Decision Making tools and Sustainability. Proceedings of the COST 356 seminar, European Cooperation in the field of Scientific and Technical Research, Oslo, Norway, 20th February.

Sacconi, L 2004. A Social Contract Account for CSR as Extended Model of Corporate Governance (Part II): Compliance, Reputation and Reciprocity. Department of Economics Working Papers 0411, Department of Economics, University of Trento, Italia.

Skibola, N, 2010. Why Corporate Social Responsibility "Credits" Can't be Traded on the Marketplace: A Response to the India Times. Right Respect, February 22nd.

Smith, K, Carbon Trade Watch, Transnational Institute, 2007. The Carbon Neutral Myth-Offset indulgences for your climate sins. Imprenta Hija de J. Prats Bernadás, Netherlands, ISBN 9789071007187

Srinivasan, Carey, SP, Hallstein, E, Higgins, PAT, Kerr, AC, Koteen, LE, Smith, AB, Watson, R, Harte, J and Norgaard, RB, 2008. The debt of nations and the distribution of ecological impacts from human activities. Proceedings of National Academy of Sciences, 105 (5), 1768-1773.

Stiglitz, JE, 2007. Making Globalization Work. W. W. Norton & Company, New York City.

Styring, P and Jansen, D, 2011. Carbon Capture and Utilizations in the green economy: Using CO2 to manufacture fuel, chemicals and materials. The Centre for Low Carbon Futures, Report No. 501.

US Department of Energy, EPA Green Power Partnership, World Resources Institute and Center for Resource Solutions, 2010. Guide to Purchasing Green Power: Renewable Electricity, Renewable Energy Certificates, and On-Site Renewable Generation.

Valero, A, Usón, S, Torres, C and Valero, A, 2010. Application of Thermoeconomics to Industrial Ecology. Entropy, 12 (3), 591-612.

Xepapadeas, A, 2008. Ecological economics The New Palgrave Dictionary of Economics. Palgrave MacMillan, Hampshire.