CORPORATE INITIATIVES AND STRATEGIES TO MEET THE ENVIRONMENTAL CHALLENGES – CONTRIBUTIONS TOWARDS A GREEN ECONOMIC DEVELOPMENT

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Abstract:
The paper aims to emphasize, based on an interdisciplinary and multi-level approach, on the actual and potential contributions of businesses towards a green economic development – through the positive integration of the environmental challenges within their initiatives and strategies. The main objectives that the paper will target in order to accomplish this mission are: (1). to outline the general framework of the green economic development; (2). to identify the specific environmental challenges businesses could and have to address in order to support the green economic development; (3). to analyze particular initiatives and strategies which have been successfully developed by companies aiming at internalizing the environmental imperative – and to argue in favor of a new business model, able to end, through the green economic development, a virtuous circle of co-evolution between businesses and the environment.

Key words: green economic development; environmental challenges; corporate initiatives and strategies

1. Introduction

For economic researchers and business practitioners, as well as for ordinary individuals and politicians all over the world, economic development represents a common measure of both performance and progress, and therefore, a constant concern – although the term itself, its precise content and specific measuring are still subjects to intense debates (Black, 1991; Greig, Hulme, & Turner, 2007). On the other hand, there are almost three decades since sustainable development – as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987) – by encompassing economic, social and environmental dimensions as well, has become a new referential when arguing about development. But, the recent evolution and trends – reflecting the incongruences and tensions between the theory of sustainable development and its practice, especially as concerns the environmental dimension – have led to the emergence and rapid development of another two concepts that have become global...
concerns: **green economic development** and **green economy** (Chapple, 2008; Morrow, 2012; Liang, Wang, & Song, 2013). International bodies with global vocation have consecrated their importance and magnitude and have given a significant momentum towards their practical implementation (UNCSD, 2012; UNEP, 2012).

In these conditions, both the green economic development and the green economy need to be put into perspective and then accordingly analyzed, in order to identify practical solutions to their challenges. Thus, the “green” dimension and the “time” perspective could be seen as two additional valences of the complex, globalized and interconnected world economy of nowadays (Dicken, 2007; O’Brien, Hadžikadić, & Khouja, 2013). This kind of approach will definitely complicate the search for solutions but, in the same time, it might be the most appropriate one for finding them, because: “**effective responses to global environmental problems** require a management framework that embodies a holistic and adaptive approach at all levels” (UNEP, 2012) – on one hand; and “**complexity and the uncertainty** of the environment in which today’s organizations operate, determines the search for new management methods** that fit in with the reality” (Gorzeń-Mitka and Okręglicka, 2015) – on the other hand.

As regards the **specific environmental challenges businesses could and have to address in order to support the green economic development**, the academic literature reveals some significant steps that have already been taken (and which perfectly could serve as starting points): Lubin & Esty (2010) studied “the sustainability imperative”, while Menguc & Ozanne (2005) argued about “the challenges of the <<green imperative>>” and Middleton (2013) identified a set of eighteen “environmental issues” – “concerns that have arisen as a result of the human impact on the environment and the ways in which the natural environment affects human society” (Middleton, 2013); Haigh & Griffiths (2009) analyzed “the natural environment as a primary stakeholder”, while Michie & Oughton (2011) even advocated for the “the need for a new economics” – as response to the “21st century environmental challenges” (Michie, & Oughton, 2011).

On the other hand, the **role and contribution of businesses to the green economic development – as they reflect into academia** – are quite contradictory: while the rather optimistic authors of the twentieth century argued about: “a conceptual framework for environmental analysis of social issues and evaluation of business response patterns” (Sethi, 1979); “developing environmental management strategies” (Roome, 1992); “environmental management and business strategy” (Welford, & Gouldson, 1993); “proactive corporate environmental management” (Berry, & Rondinelli, 1998); “strategic proactivity and firm approach to the natural environment” (Aragón-Correa, 1998), the twenty-first century researchers are much more realistic – both in contents and in expressions: Makower & Pike (2009) are talking about “strategies for the green economy: opportunities and challenges in the new world of business”; Dixon-Fowler et al. (2013) develop “a meta-analysis of moderators of the CEP–CFP relationship” – “beyond <<does it pay to be green?>>”; and Dyllick & Muff (2013) are making ”a wake-up call for business people and management scholars alike that their good intentions and actions have not been leading to significant sustainability improvements on a global level” (Dyllick, & Muff, 2013).

Although, at least at first glance, the realities reflecting the **corporate initiatives and strategies to meet the environmental challenges** (as contributions
Towards a green economic development) do not seem to be placed under the best auspices, this could in fact represent a very good moment for reinforcing businesses commitments towards the green imperative. The recent advancements in both the theory of business and the practice of strategy are strong arguments to support this statement, due to their capacity to: (a). allow and favor multi-level approaches, able to integrate all and each one of the relevant dimensions within a coherent framework of analysis; (b). valorize all the interconnections into positive environmental impacts, through management processes that combine: the resource-based view of the firm with the stakeholder approach, competition with cooperation, regulation with self-regulation, universal values and principles with idiosyncratic realities and contexts.

2. In search of the green economy – identifying the challenges businesses have to deal with

Basically, "in its simplest expression, a green economy is low-carbon, resource efficient, and socially inclusive; (...) The key aim for a transition to a green economy is to enable economic growth and investment while increasing environmental quality and social inclusiveness" (UNEP, 2011). This win-win symbiotic kind of behavior is consistent with the search for sustainability – which "refers to the long-term maintenance of systems according to environmental, economic and social considerations" (Crane and Matten, 2007) – and it is reinforcing Fisk’s (2010) assumption that “economic growth is only sustainable if business activities are integrated with social and environmental priorities”.

But generally, if looking at the bigger picture, “as economic development proceeds, it generates many economic benefits through the production and consumption of commodities. However, development also leads to natural resource depletion, pollution and the alteration of ecosystems. The latter can lead to ecological scarcity, i.e. the relative decline in beneficial ecosystem goods and services. Thus, the fundamental economy-environment tradeoff is between the economic benefits arising from development and any resulting environmental and welfare impacts arising from natural resource depletion, pollution and ecological degradation” (Barbier and Markandya, 2013).

If considering the dynamics that Earth Overshoot Day – which “marks the date when humanity’s annual demand on nature exceeds what Earth can regenerate in that year” (Global Footprint Network, 2015) – has registered during this century (from the beginning of October in 2000 to August 13th in 2015), it becomes pretty clear that the above mentioned tradeoff is far from being realized. More than that, it seems like the human kind is trapped into a vicious cycle that makes reaching this target more difficult each year, because, as Global Footprint Network (2015) has emphasized, “the costs of this ecological overspending are becoming more evident by the day, in the form of deforestation, drought, fresh-water scarcity, soil erosion, biodiversity loss and the buildup of carbon dioxide in the atmosphere. (...) As more is being demanded for food and timber products, fewer productive areas are available to absorb carbon from fossil fuel. This means carbon emissions accumulate in the atmosphere rather than being fully absorbed”.

According to UNEP (2012), “an economy functions within a society, or within and between societies, using natural and human resources to produce marketable
goods and services. At the same time, societies survive and thrive within the environment determined by the physical limits of atmosphere, land, water, biodiversity and other material resources” (UNEP, 2012). But, as comprehensible and logical as it looks like, this is not an easy predictable and manageable mechanism. It rather is a complex system – “whose behavior results from the interactions of a large number of independent agents” (Grant, 2010). Therefore, the dynamics of the relationships between economy and the environment asks for a complex view, because the “Earth System is complex and composed of interacting components. Non-linear interactions within and among these components, supplemented by the inherent difficulties in anticipating human behavior, impose limits on the predictability of the Earth System” (UNEP, 2012).

Within this complex and dynamic framework, UNEP (2011) has identified “10 key sectors considered to be driving the defining trends of the transition to a green economy”; these sectors and their respective challenges and opportunities are summarized in Table 1.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Challenges</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>On the demand side: food security, population growth, changing pattern of demand driven by increased income, the growing pressure from biofuels. On the supply side: limited availability of land, water, mineral inputs and rural labor as well as the increasing vulnerability of agriculture to climate change and pre-harvest and postharvest losses.</td>
<td>Increased awareness by governments. Donor interest in supporting agriculture development in low income countries. Growing interest of private investors in sustainable agriculture. Increasing consumer demand for sustainably produced food.</td>
</tr>
<tr>
<td>Fisheries</td>
<td>Overfishing, Subsidies, Small-scale fisheries, Greening aquaculture, Climate change and greenhouse gas emission in fisheries.</td>
<td>Jobs supported by global fisheries. Recreation and tourism. Marine protected areas. Consumer awareness.</td>
</tr>
<tr>
<td>Water</td>
<td>Poverty, access to clean water and adequate sanitation services, Water scarcity, Balancing supply and demand.</td>
<td>Investing in biodiversity and ecosystem services. Investment in sanitation and drinking water supply. Investing in smaller, local water-supply systems. Accessing new (non-traditional) sources of water. Producing more food and energy with less water. Institutional reform.</td>
</tr>
<tr>
<td>Forests</td>
<td>Trends in forest cover and deforestation, Competing uses of land, Market, policy and governance failures.</td>
<td>Sustainable forest management. Growth of protected areas. Payments for ecosystem services and reducing emissions from deforestation and degradation, conservation, sustainable management of forests and enhancement of forest carbon stocks.</td>
</tr>
<tr>
<td>Renewable energy</td>
<td>Concerns about energy security, Combating climate change, Reducing pollution and public-health hazards, Addressing energy poverty.</td>
<td>Greening the energy sector, including by substantially increasing investment in renewable energy.</td>
</tr>
</tbody>
</table>
Waste

- Increasing growth in the quantity and complexity of waste streams associated with rising incomes and economic growth
- Increasing risk of damage to human health and ecosystems
- The sector’s contribution to climate change
- Growth of the waste market, driven by demand for waste services and recycled products
- Increased scarcity of natural resources and the consequent rise in commodity prices, which influence the demand for recycled products and waste to energy
- Emergence of new waste-management technologies

Buildings

- Sizing the building sector
- Developmental challenges
- Energy and environmental challenges
- Data challenges
- Low net cost
- Adapting behavior patterns
- Design and technology
- Managing energy supply and demand
- Retrofitting and new construction

Transport

- Unsustainable trends
- Fuel and natural resources
- Greenhouse gases
- Pollution and health
- Human security and accidents
- Congestion
- Accessibility and severance
- Leapfrogging towards green transport
- Avoiding or reducing the number of journeys taken, shifting to more environmentally efficient forms of transport, and improving vehicle and fuel technology to reduce adverse environmental effects such as pollution and resource depletion

Tourism

- Energy and greenhouse gas emissions
- Water consumption
- Waste management
- Loss of biological diversity
- Management of cultural heritage
- Sizing and growth of the tourism sector
- Changing consumer patterns
- Potential for local development and poverty reduction

Source: UNEP, 2011

3. Addressing the environmental challenges – from corporate initiatives and strategies to new business models

Conscious and concerned about the global environmental issues with long-term stake (among other critical areas: people, prosperity, peace and partnership), and therefore “determined to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations”, on September 25th 2015 countries adopted The 2030 Agenda for Sustainable Development (UN, 2015) – a set of 17 Sustainable Development Goals (SDG) and 169 targets to be reached by 2030. As “vital partner in achieving the SDGs” (Ban Ki-moon, United Nations Secretary-General), businesses have been provided with The SDG Compass guide – instrument developed in order to “use the SDGs as an overarching framework to shape, steer, communicate and report their strategies, goals and activities, allowing them to capitalize on a range of benefits such as: identifying future business opportunities; enhancing the value of corporate sustainability; strengthening stakeholder relations and keeping the pace with policy developments; stabilizing societies and markets; using a common language and shared purpose” (SDG Compass, 2015).

Translating the discussion at business level, triple bottom line – TBL (Elkington, 1999) and corporate social responsibility – CSR (McWilliams, 2000) are the most common concepts and practices encapsulated into the corporate initiatives and strategies aiming for both sustainable competitiveness and public legitimacy. But, under the new complex and dynamic framework outlined above, these are no longer enough: what is needed now is a paradigmatic change in the way business think (in terms of their strategies) and behave (when bringing their business models to
Taking a holistic – both diachronic and synchronic – perspective, Peter Fisk (2010) emphasizes on "how social and environmental issues have moved from the organization fringes to core business" (Table 2). Under these circumstances, he asks for rethinking social and environmental challenges as opportunities for business, while arguing that “business needs to address its economic, social and environmental challenges holistically, and to understand how they can combine as positive forces in creating a better world”. The mutual reinforcing of these forces will result in: (a). creating a sustainable business; (b). living within environmental limits; (c). ensuring a fair society (Fisk, 2010).

Table 2. Sustainable agenda: how social and environmental issues have moved from the organization fringes to core business (Source: Fisk, 2010, p. 5)

<table>
<thead>
<tr>
<th>1950s-60s Awakening</th>
<th>1970s-80s Regulating</th>
<th>1990s-00s Contributing</th>
<th>2010+ Transforming</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial growth delivers wealth and expectation</td>
<td>Economic growth with increased consumerism and international trade</td>
<td>Multinational brands serve more diverse, informed and conscious customers</td>
<td>Global markets, with instant connectivity, global trends and rising “base of the pyramid”</td>
</tr>
<tr>
<td>Western markets thrive whilst the East recovers more slowly</td>
<td>Product innovation supported by low-cost automated production</td>
<td>Digital innovation creates virtual businesses, faster and more connected</td>
<td>Sustainable innovation puts social and environmental issues at core of business</td>
</tr>
<tr>
<td>Migration to cities accelerated by travel and employment</td>
<td>Improved lifestyles, human and equal rights to new practices</td>
<td>Corporate governance improves the ethical and social behavior of business</td>
<td>Collaborative organizations and networked communities for new business models</td>
</tr>
<tr>
<td>Flower-power hippies raise social and environmental priorities</td>
<td>Government regulation on pollution and waste through taxation</td>
<td>Recycling, sustainable sourcing and disposal adopted as standard</td>
<td>Sustainable markets are most profitable, as “doing good” becomes the best way to grow</td>
</tr>
</tbody>
</table>

Intervening into the sustainability debate, Benn, Dunphy and Griffiths (2014) support the idea of corporations as “instruments of renewal” – which would be possible “through forging a powerful new ideology that creates a compelling vision of a future world fit to live in, and implementing the practical actions in the workplace and in our consumption patterns that will bring the vision into being”. Therefore, they argue for the “redefinition of corporations to ensure they become major contributors to sustainability rather than social and environmental predators undermining a world fit to live in”, and come with the sustainability phase model (Table 3) – which “is designed as a tool for making meaningful comparisons between organizations to assess their current commitment to and practice of behaviors relevant to two kinds of sustainability: human and ecological. The phases outline a set of distinct steps organizations take in progressing to sustainability” (Benn, Dunphy and Griffiths, 2014).

Table 3. The sustainability phase model (Source: Benn, Dunphy, Griffiths, 2014, pp. 15-20)

<table>
<thead>
<tr>
<th>Phase</th>
<th>Defining metaphor</th>
<th>Prevailing theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rejection</td>
<td>Stealthy saboteurs and freeloaders</td>
<td>Exploit resources for maintaining short-term financial gain</td>
</tr>
<tr>
<td>Non-responsiveness</td>
<td>Bunker wombats</td>
<td>Business as usual</td>
</tr>
<tr>
<td>Compliance</td>
<td>Reactive minimalists</td>
<td>Avoid risk</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Industrious stewards</td>
<td>Do more with less</td>
</tr>
<tr>
<td>Strategic proactivity</td>
<td>Proactive strategists</td>
<td>Lead in value-adding and innovation</td>
</tr>
<tr>
<td>The sustaining corporation</td>
<td>Transforming futurists</td>
<td>Transform ourselves: lead in creating a sustainable world</td>
</tr>
</tbody>
</table>
Embracing a complexity view, Visser (2011) proclaims the failure of the “traditional” corporate sustainability and responsibility (CSR) – which “assumes that success or failure is measured in terms of the net impact (positive or negative) of business on society and the environment” – and advocates for its replacement – “if we are to reverse the current direction of many of the world’s most pressing social, environmental and ethical trends”. Therefore, he proposes “systemic or radical CSR, or CSR 2.0” – in terms of both destination (sustainability) and journey (responsibility) – for the newly emerged “age of responsibility”. According to Visser (2011), “this new CSR (...) is based on five principles (creativity, scalability, responsiveness, glocality and circularity) and forms the basis for a new DNA model of responsible business, built around the four elements of value creation, good governance, societal contribution and environmental integrity” (Table 4).

Table 4. DNA Model of CSR 2.0 (Source: Visser, 2011)

<table>
<thead>
<tr>
<th>DNA Code</th>
<th>Strategic Goals</th>
<th>Key Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value creation</td>
<td>Economic development</td>
<td>Capital investment (financial, manufacturing, social, human &amp; natural capital)</td>
</tr>
<tr>
<td>Good governance</td>
<td>Institutional effectiveness</td>
<td>Leadership (strategic commitment to sustainability &amp; responsibility)</td>
</tr>
<tr>
<td>Societal contribution</td>
<td>Stakeholder orientation</td>
<td>Philanthropy (charitable donations, provision of public goods &amp; services)</td>
</tr>
<tr>
<td>Environmental integrity</td>
<td>Sustainable ecosystems</td>
<td>Ecosystem protection (biodiversity conservation &amp; ecosystem restoration)</td>
</tr>
</tbody>
</table>

4. Conclusions

Essentially, there are two sources of pressure that lead businesses towards intensive greening: “first, the limits of the natural world could constraint business operations, realign markets, and threaten the planet’s well-being. Second, companies face a growing spectrum of stakeholders who are concerned about the environment. Global warming, resource constraints, water scarcity, extinction of species (or loss of „biodiversity”), growing signs of toxic chemicals in humans and animals – these issues and many others increasingly affect how companies and society function. Those who best meet and find solutions to these challenges will lead the competitive pack” (Esty and Winston, 2009).

Although “green business choices can be quite complex, beyond straightforward business cost/benefit analysis” (Mitchell & Green Manufacturing Initiative, 2009), “sustainability strategies are smart business strategy (...) because they…) give companies a sustainable competitive advantage”, while providing them with a series of benefits: (1) increased revenue and market share; (2) reduced energy expenses; (3) reduced waste expenses; (4) reduced material and water expenses; (5) increased employee productivity; (6) reduced hiring and attrition expenses; (7) reduced risks (Willard, 2012).
On the other hand, “a sustainability business model (SBM) – a model where sustainability concepts shape the driving force of the firm and its decision making” (Stubbs and Cocklin, 2008) – could also represent a valuable solution for companies addressing the environmental challenges, considering that a SBM: (1) draws on economic, environmental and social aspects of sustainability in defining an organization’s purpose; (2) uses a TBL approach in measuring performance; (3) considers the needs of all stakeholders rather than giving priority to shareholders’ expectations; (4) treats nature as a stakeholder and promotes environmental stewardship; (5) sustainability leaders, or champions, drive the cultural and structural changes necessary to implement sustainability; (6) encompasses the systems perspective as well as the firm-level perspective (Stubbs and Cocklin, 2008).

5. References


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