Sustainability as a Strategy of Responsible and Competitive Development

Sostenibilidad como Estrategia de Desarrollo Responsable y Competitiva

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Resumen. El objetivo de este artículo es analizar la estrategia de la competitividad en función de la sustentabilidad para dar la pauta a un modelo de desarrollo responsable y competitivo. El análisis tiene como punto de partida el supuesto de que la madurez de una estrategia sustentable en los negocios afecta positivamente a la competitividad. El método empleado es el análisis crítico. Entre otros resultados de este análisis se concluye que la estrategia empresarial actual busca un sistema ecológicamente adecuado, económicamente viable y socialmente justo para llegar al equilibrio sustentable. Esta estrategia basada en la sustentabilidad debe ser impulsado por las instituciones y fortalecido por las capacidades y recursos con los que cuenta cada empresa para desarrollar ventajas que impulsen el desarrollo global y logren la maximización de beneficios desde una perspectiva tangible e intangible.

Palabras claves: Negocios, **c**ompetitividad, desarrollo, estrategia, sustentabilidad.

Abstract. The aim of this paper is to analyze a competitiveness strategy based on sustainability to lead the way to a model of responsible and competitive development. The analysis takes as its starting point the assumption that the maturity of a sustainable business strategy positively affects competitiveness. The used method is the critical analysis. Among other results of this analysis concludes that the current business strategy seeks a system ecologically appropriate, economically viable and socially fair to reach sustainable equilibrium. This strategy based on sustainability must be promoted by the institutions and strengthened by the capabilities and resources that each company counts on to develop advantages to foster the overall development and achieve the maximization of benefits from the tangible and intangible perspectives.

Keywords: Business, competitiveness, development, strategy, sustainability.

1. Introduction

Today's enterprises face a daily challenge to survive by growing material needs, natural resource scarcity and inequalities. Making sustainability a key role as a global strategy may be based on economic prosperity, ecological balance and the common good. Globalization in business has become more complex the panorama, increased competition, access to new markets, development of new technologies

have led businesses to focus efforts on building an identity that will strengthen their skills.

According to Porter (1995), these strengths are based on competitive advantage, which exists when there is an equivalence of distinctive competencies of a company, so the customer particular needs allow generating a competitive advantage. Another factor that makes complex business world is the interest of the owners to maximize their profits in the shortest possible time, forgetting prosperity at the expense of society and the environment. Agency theory helps to clarify some aspects related to the problem of the relationship between people, environment and resources, which examines the situations of delegation of authority and decision making and joint interests opposed to individuals that have to be overcome to reduce moral hazard.

The industry in general is embedded in social and environmental spheres. Therefore the companies are concerned to finding a balance that allows the supply and enrichment from the system is of utmost importance. Therefore, it is the responsibility of caring for the environment and society, living in balance to ensure economic sustainability for the future. The challenge for governments is to design rules that enable sustainable development, maximizing the social and economic welfare and environmental care. These rules are based on planned restrictions that structure business integration.

Sustainability is the way to find economic, ecological and social balance, resulting in prosperity and capitalization of new resources. In the theory of resources and capabilities, the notion of competitive sustainability is referred to the equilibrium (Barney, 1994, Barney and Zajac, 1994, Rumelt 1984), which is the way to observe the competition in terms of windfall profits. In an environment like today's highly competitive and globalized, it is necessary to analyze the sustainability bearing in

mind that among competitive players there is only one winner and many losers. With a sustainable strategy the short and long term benefits are maximized having greater tangible and intangible profits. Instead the purpose of competitiveness is the economic optimization, leaving aside the social and environmental factors, contrary to what is proposed by the sustainability.

A sustainable strategy ensures the success of organizations and ensures its permanence over time.

2. Background

In the early '70s awareness of the seriousness of the degradation of environmental friendliness manifested itself in the United Nations Conference on Environment in Stockholm in 1972, where it was coined the term sustainable development. The Brundtland Report by the United Nations Organization (1987), proposes the restoration of ecological balance, rebuild what has been damaged by the economic and material progress and build the natural bases that make the development model of industrial society something enduring. Economic development on which the report reflects, analyzes what causes poverty, inequality, injustice and environmental damage. It highlights the common good and ecological health as the absence of both is directly related to environmental degradation of the countries.

The term sustainable development gained acceptance as a result of the United Nations Conference on Environment and Development (1992, 8) which states "Sustainable development is one that meets the needs of present generations without undermining the ability of future generations to meet theirs". Lezama and Graizabord published in 2010, "The great problems of Mexico," where they explain: Sustainable Development in Mexico departs from the modernization process in the review process and the Institutional transformations. The General Law of

Ecological Equilibrium and Environmental Protection records clearly these principles.

The Reform of the Organic Law of Federal Public Administration of 1992 transformed the Secretary of Urban Development and Ecology (SEDUE) in Secretary of Social Development (Sedesol) and created the National Institute of Ecology (INE) and the Federal Environmental Protection Attorney (Profepa) reflecting directly the search for modernization. The National Institute of Ecology (INE) was able to create the regulatory framework, and make the lines to be followed by environmental policy. The Federal Environmental Protection Attorney (Profepa) became responsible for that which was established as a legal and normative principle and that the policy defined as its strategy, objectives, goals and actions, leading to the award of the ecological equilibrium, that it was actually obeyed and fulfilled . These institutional changes taking place in Mexico resulting from the global debate triggered by the Brundtland Report anticipated the Rio Summit.

The signing of the Free Trade Agreement (NAFTA) which entered into force on the first day of 1994, and the addition of Mexico to the Organization for Economic Cooperation and Development (OECD) the same year. Both events brought intense legislative, normative and institutional activity. Environmental standards of various kinds were created with the deliberate purpose of government to be part of the agreement that brought to do commercially to the U.S., Canada and Mexico "(Lezama and Graizabord, 2010, p.47).

3. Definition of the problem

The competitive strategy led to harmful social and environmental that over the years has become economic problems. This is a model in which the competitive survive

and the weakest die in failed. From this point, it is proposed a sustainable strategy based on the theories of institutions, resources, industry and corporate social responsibility.

4. Justification

The supporting sustainable strategy based on the fact of having limited natural resources, which before and at the time of exhaustion would cause economic, ecological and social demand for them. Sustainability is an economic development strategy that benefits all three factors increasing satisfaction levels and strengthens the future prospects.

5. Hypothesis

H0. The maturity of a sustainable strategy positively affects business competitiveness, with positive results in the economic, ecological and social development.

6. Objective

To analyze the competitiveness strategy based on sustainability strategy to lead the way to a model of responsible and competitive development.

7. Theoretical frame of reference

The theory based on the industry, resource-based theory and theory of the institutions establish the theoretical frame of reference for government business set up a complex framework based on the studies of Porter (1985), Wernerfelt (1984), Barney (1991) and North (1990). This framework presents the overall picture for business development and its relationship with the environment. The development

of society is not unique and exclusive to the institutions, the business-environment relationship first take an important role in the development of society, reflected in the economy and the standards of quality of life.

Barney (1991) mentions that organizational resources are assets, capabilities, attributes which are controlled by the organization to devise and implement strategies that improve its efficiency and effectiveness. These resources are heterogeneously distributed among the organizations, being valuable, rare, inimitable and not substitutable. From the point of view of resource-based view Wernerfelt (1984) mentions that maintain a competitive advantage built on its resources.

A competitive advantage exists when there is equivalence between distinctive competencies of a firm (Porter, 1985). According to Peng (2006) there are three competitive strategies: differentiation, costs and focus or segmentation. The strategy of differentiation is based on distinguishing between competing firms. The strategy of cost, the company offers lower prices to consumers. The focus is characterized by identifying a market segment in which specialization is the right strategy to capture the niche market.

In the relationship with the environment, the institutions are presented as "humanly planned restrictions that structure human interaction" (North 1990, p.3) represented as rules of the game. It defines dynamic capabilities as "the organization's ability to integrate, build, and reconfigure and align competencies to market changes" (Teece, Pisano and Shuen, 1997, p.521). Organizational capacity and dynamics given by Winter (2003) as a high level capacity which gives the direction of the organization a set of alternatives to achieve valuable results. In turn, he mentions that dynamic capabilities are those organizational capabilities acting to create the conventional capabilities.

The capabilities of the entrepreneur are a fundamental part of strategic development, which will provide sustainable competitive advantages. As it is known (Simon, 1947) there are different capacities in all humans, that can limit maximum utilization of resources according to the bounded rationality. Penrose (1959) states: "A company needs reserves for operation, the displayed subject to a restricted and cumulative development process. It has been suggested that the competitive strategy requires the exploitation of the capabilities, internal and external firm-specific "(Penrose, 1959, p. 94).

Based on this framework it can be established the sustainability strategy as an alternative to responsible and competitive development. The International Union for Conservation of Nature mentioned in the XVIII General Assembly (1990): Sustainable development is a process of economic and social improvement that meets the needs and values of all stakeholders, keeping future options and conserving natural resources "and" Sustainability: a strategy for the care of the planet (International Union for Conservation of Nature, 1990, p.33).

In 2007, mankind consumed resources equivalent to one and a half planet according to the factor of bio-capacity, jeopardizing the provision of resources for future generations. This situation places the sustainability strategy as a solution to the problem in the bud. In collaboration with industry, institutions and society, the implementation of a sustainable strategy is to achieve optimum level which may not be exposed to future generations, as shown in figure 1.

Making an analysis it can be established the strategy of sustainability as balancing economic, ecological and social interaction with the theories of the resources, institutions and industry, as illustrated in the figure 2.

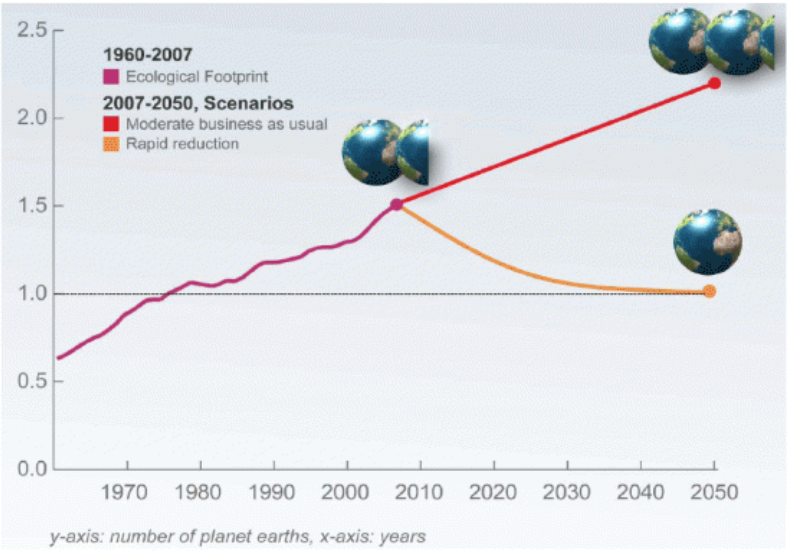


Figure 1: Bio-capacity.
Source: World Wide Fund For Nature (2010), captured from http://www.footprintnetwork.org/press/LPR2010.pdf

La sustentabilidad como equilibrio económico, ecológico y social en interacción con las teorías económicas de los recursos, las Instituciones y la ventaja competitiva. **Fuente: Elaboración propia.**

Figure 2. Sustainability is balancing economic, social and ecological interactions with economic theories of resources, institutions and comparative advantage.
Source: Own elaboration.

Sustainability suggests a close relationship between business and client entity in which you can be set more than a transaction of mutual benefit of the parties and ensure customer loyalty. The concept of sustainability currently is living with the social responsibility of business organizations that have integrated their strategies voluntarily beyond compliance with laws and regulations of the country, comes from a positive social development through the creation of values and a responsible business conduct.

Sustainability is constituted as an unavoidable necessity for the future survival of the company. Most of today's problems revolve around the wealth, accumulation, inequality, generating new demands for goods, as a synonym for the equilibrium distance, which lie in the ignorance of the subsidiary principle of efficiency social.

8. Competitiveness in terms of sustainability from a perspective of indicators.

The analysis of development indicators helps to assess the factors that make up the function, to give a comparative result between different actors evaluated. To assess the competitiveness are measured product or service variables creating the offering value to the organization compared to competitors, the position of these variables is the level of organizational competitiveness. Among them are the cost, speed, reliability and customer satisfaction. The model of Systemic Competitiveness developed by Esser (1996), provides a framework with a medium to long term vision and dynamic interaction between actors, which should be directed not only to optimize efficiency potential at different system levels, but also in mobilizing social capacities for creativity aimed to develop competitive advantages.

Analyzing the sustainable development indicators show the performance of the industries based on economic, social and environmental factors. The first factor based on economic development is focusing on a framework of quality,

environmental audits, introduction of clean technologies and sustainable use of resources. The social factor analyzes the development of employees and their participation in society, creating an atmosphere of wellness based on the values of the company. The last of the evaluation factors of sustainability is the environmental factor which is set to analyze the impact of the company with its environment.

Different organizations have developed different indicators to assess the impact of implemented strategies. Here are some indexes of competitiveness and sustainability:

A. Competitiveness index

Growth Competitiveness Index was introduced by Jeffrey D. Sachs and Andrew Warner and developed with the assistance of John McArthur for the Center for International Development at Harvard. It measures the ability of a national economy to achieve sustainable economic growth in the medium term. Business Competitiveness Index (2003) was created by Michael Porter from the Institute for Strategy and Competitiveness at Harvard Business School. Evaluates the effectiveness with which an economy uses its resource base.

B .Sustainability indexes

Dow Jones Sustainability Indexes (1999) are the first global indexes tracking the financial performance of leading sustainability-driven companies worldwide. ISE-BOVESPA (2005) is a pioneering initiative in Latin America, designed to create an investment environment compatible with the needs of contemporary society for sustainable development and to encourage companies to be ethically responsible. Environmental Sustainability Index Yale University (1995) was developed by Yale

University to set the benchmark for the ability of nations to protect the environment. These indicators permit comparison across a number of issues that fall within the following five broad categories: Environmental systems, reducing environmental stress, reduce human vulnerability to environmental stresses, social and institutional capacity to respond to environmental challenges and global management.

It can be noted that the indexes of competitiveness and sustainability are very clear, assess objective factors which are given a weighting. As mentioned earlier, the competitiveness indexes assess primarily economic, while sustainability focus primarily on the environmental factor, worrying at the forefront of the social aspect, to have positive results in the economy.

Then there is the Most Sustainable Global Companies Ranking (2012) published by Corporate Knights that analyses productivity factors of carbon dioxide, diversity leadership, responsibility for payment of tax, it is important to note that in the issue of sustainability, responsible business can make a lot without big investments by having a social, economic and environmental culture, being a good example the Brazilian firm Natura Cosméticos S.A. See Table 1.

The Most Sustainable Global Companies Ranking 2012 it is observed how the firms are evaluated on the ecological role of carbon dioxide, which creates major problems in greenhouse pollution, the social role based on gender diversity and social responsibility in paying taxes. It is a clear example that corporate responsibility is ever-increasing to society, contributing in different ways.

On a macro level Yale University has developed the Environmental Sustainability Index by assessing the environmental systems, reducing stress, reducing human vulnerability, social and institutional capacity and overall management. The results of the evaluation are presented in pentagons. Then it is presented the evaluation of

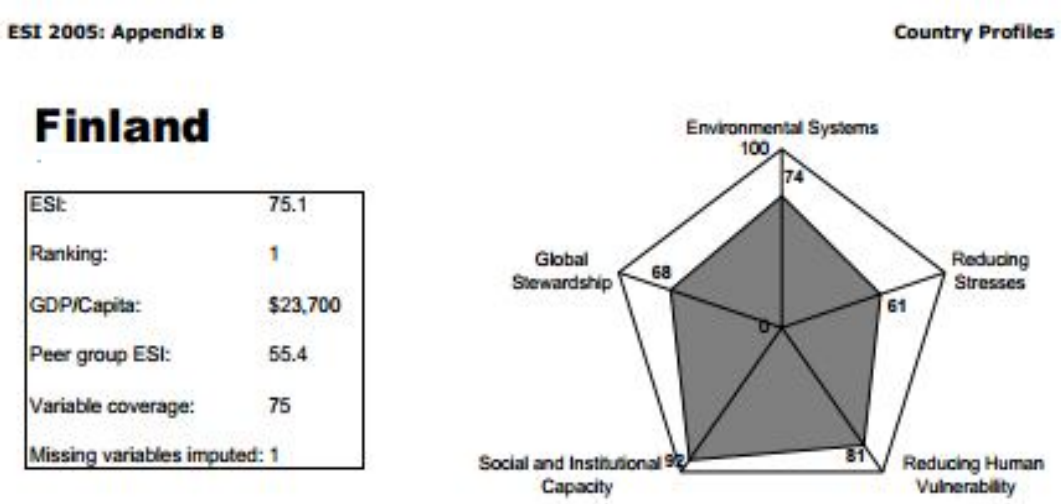
index for Finland, the United States and Mexico which will be analyzed against the global competitiveness index published by the World Economic Forum, which provides competitive factors based on institutions, infrastructure, macroeconomic environment, health and primary education. Higher education and training, goods market efficiency, labor market efficiency, financial market development, technological readiness, market size, business sophistication and innovation.

Table 1. Ranking of most sustainable global companies 2012.

Company	**Rank**	**CO2 productivity**	**Leadership diversity**	**% Tax paid**	**Country**
Novo Nordisk A/s	1	$68-585	17.65%	80.45%	Denmark
Natura Cosmeticos S.A.	2	$284.661	0.00%	73.90%	Brazil
Statoil Asa	3	$6,508	40.00%	100.00%	Norway
Novozymes A/s	4	$4,229	18.75%	91.87%	Denmark
ASML Holding Nv	5	$70.094	15.38%	80.54%	Netherlands
BG Group Plc	6	$3, 308	7.14%	99.83%	United Kingdom
Westpac Banking Corporation	7	$152.948	30.00%	100.00%	Australia
Vivendi S. A.	8	$129.114	33.33%	68.67%	France
Umicore S. A./m.v.	9	$24,360	20.00%	74.67%	Belgium
Norsk Hydro Asa	10	$4,520	33.33%	100%	Norway

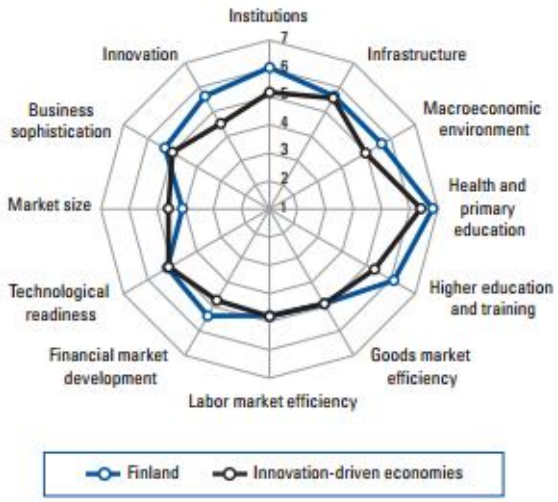
Source: Corporate Knights, http://global100.org/index.php.

C. Environmental Sustainability Index (Finland)



Source: Environmental Sustainability Index (2005).
http://www.yale.edu/esi/b_countryprofiles.pdf

Global Competitiveness Index (Finland)

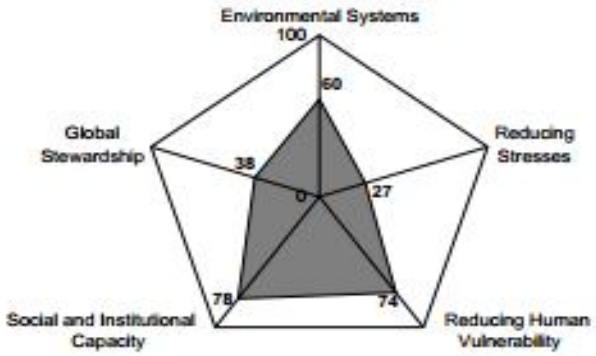


Source: World Economic Forum,
http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2010-11.pdf

D. Environmental Sustainability Index (United States)

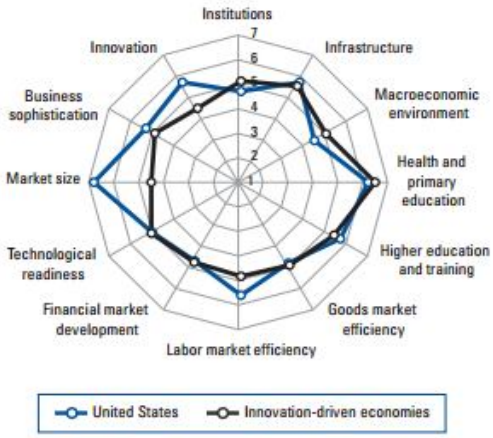
United States

ESI:	53.0
Ranking:	45
GDP/Capita:	$32,483
Peer group ESI:	55.4
Variable coverage:	73
Missing variables imputed:	0



Sources: Environmental Sustainability Index (2005)
http://www.yale.edu/esi/b_countryprofiles.pdf

Global Competitiveness Index (United States)

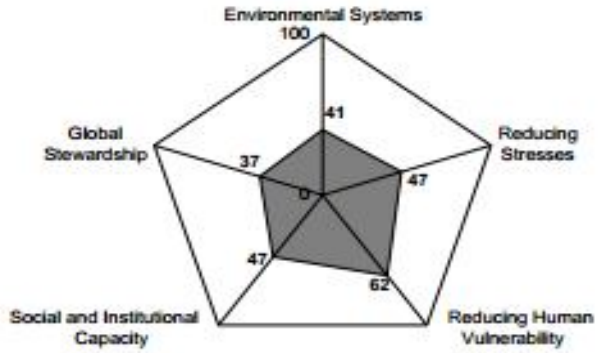


Fuente: World Economic Forum,
http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2010-11.pdf

E. Environmental Sustainability Index (México)

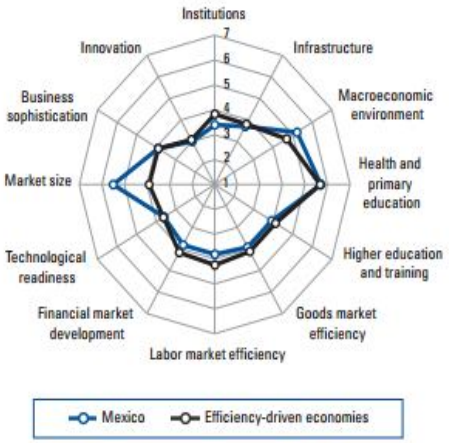
Mexico

ESI:	46.2
Ranking:	95
GDP/Capita:	$7,945
Peer group ESI:	52.1
Variable coverage:	74
Missing variables imputed:	1



Source: Environmental Sustainability Index (2005).
http://www.yale.edu/esi/b_countryprofiles.pdf

Global Competitiveness Index (México)



Fuente: World Economic Forum,
http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2010-11.pdf

Competitiveness is based on economic variables reflected in indicators such as gross domestic product. A company can deplete forests, pollute the air showing positive competitiveness indicators but not reflecting a sustainable strategy. It can be observed the U.S. case which is among the five most competitive countries and

the sustainability index is in the place 45. This reflects the lack of concern for social and environmental factors, which make the difference between sustainability and competitiveness. In contrast, the levels of competitiveness in Finland are among the top ten and sustainability is at number one according to the indicators mentioned above.

Taken at a micro scale by reference to the same factors evaluated, it can be observed that the strategy is sustainable and have positive results in the appearance of responsibility and competitiveness. The most competitive companies have the best economic, social and environmental issues in the long term, ensuring sustainability; this presents a strategy where competitiveness is measured in terms of sustainability.

9. Conclusions

The current business strategy seeks an ecologically appropriate system, economically viable and socially just to reach sustainable equilibrium promoted by the institutions and strengthened the capabilities and resources that each company has to develop advantages that promote the overall and global development, with the results of maximizing benefits from tangible and intangible perspective.

At the end of the analytical study it can be observed that the maturity of a sustainable business strategy positively affects competitiveness, having positive results in the economic, ecological and social. It also is emphasized that the development should not only aim to optimize the system efficiency, but also social and environmental capabilities development and to generate a social, ecological and economic stability.

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