

Company Competitiveness in Sustainable Conditions

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Abstract

In the present paper we present the preoccupation of the contemporary society regarding durable development and we identify the means to increase performance and competitiveness of the companies in sustainable conditions, starting from the European strategies, the concept of social responsibility of the company and the troubling results for the mankind regarding the research made to measure the ecologic fingerprint as a valid instrument for calculating the impact humans have on earth.

Key words: competitiveness, sustainability, durable development, environment

J.E.L. classification: Q01, M14

1. Introduction

The world economy is tightly connected with the environment and even the smallest alteration of the surrounding environment's evolution can have major consequences – in certain situations this can be even catastrophic. The industrial revolution had an immense impact both on society as well as on the environment. Fast growing industrial development led to inefficient use of natural resources as well as the release of high quantities of pollutants into the atmosphere. Society and institutional level current concerns regarding the environment degradation led to exerting pressure on the economic entities for manifesting a genuine interest for the surrounding environment and implicitly for them to pay more attention and allot budget towards this direction.

Chemical and nuclear accidents, climate changes driven by the human being and his actions (ozone layer deterioration, massive deforestation, etc.) and the population's exponential growth have numerous long term effects such as: diminishing of natural resources, reduction of biodiversity, increase of the pollution factor, changes in the atmosphere composition, climate changes, desertification, increase of the resource supplies (water, food, shelter), migration increase, poverty level increase, urbanization level increase and the birth and outlining of conflicts over resources.

The trend towards acknowledging the need of surrounding environment sustainability has mainly become important for two reasons: the size of the problem's importance and the stakeholders and clients' level of acknowledging regarding the human being's activities upon the environment.

2. Theoretical background on sustainable growth – the aim of a contemporary society

"Sustainability = quality of an anthropic activity which develops without depleting the available resources and without destroying the environment therefore without compromising the ability of future generations to meet their own needs.

The 1992 Rio de Janeiro world conference on environment awarded a special attention to this concept which implies establishing an equilibrium between economic growth, environment

protection and finding alternate resources. The synonym term "sustainable growth" is preferred when referring to a country or region's general economic growth. According to the 1993-2009 (www.dexonline.ro) encyclopedic dictionary this is the definition used to cover the entire paradigm, not just the meaning of the word. Therefore, the defined sense emerges from the economic character side of the human activities thus inducing a new dimension to the system – resources needs: that of correct resource handling in order to meet the needs and time expectations.

A company's attitude, if oriented towards sustainable growth, can be seen as a competitive advantage on the market. Firstly, because the message sent out is that its declared intention is *made to last*. In the same context of efficient resource usage, apart from durable, sustainability also refers to using efficient processes and recyclable and/or renewable raw materials. On a company level a series of analysis are required based on which strong point and weak point evaluation strategies are adopted and where the situation can be valued either as an advantage generating competitiveness or as vulnerability whose effects or impacts need to be diminished.

For companies, adopting a sustainability favorable attitude can lead to obtaining more benefits especially through consolidation of a powerful brand: risk decrease, cost reduction, company value increase. All of these lead to the defining of a competitive advantage. Sustainability and environmental protection are interrelated with superior economic performances and increased competitiveness both for the company as well as for the country. New products and technologies are being developed as well as adjacent services with the purpose of reducing the impact upon the environment. Also, through innovation, many new, agile, flexible and adaptable companies who see this approach as an opportunity emerge on the market.

The companies have to win over their inertia with the aim of maintaining their position or even further, if they wish to expand their own competitiveness. This statement is more obvious as the company wishes to maintain its presence on the market for an extended period of time. Sustainability as a competitive advantage doesn't represent the recipe for success but lack of orientation towards sustainability will most definitely determine long term failure or at least effort multiplication in time.

Sustainable growth determines that production develops without excess resource consumption and without destruction of the surrounding environment (pollution reduction). Three categories of instruments can be used for an efficient implementation of the environment protection policies: legislation, economic levers and technology. If laws can be imposed through legislation, the other two instruments allow for market condition adjustments, whereas through new technology development, objective completion of the established economic criteria can be monitored.

Nevertheless, through an efficient and optimal communication, ideas and information flow easily increasing the number of people who can engage in innovation, research, development and consultancy. A strategically planned taxation system can encourage innovation and can set the appropriate layout for partnership development, investment attractions, development of new methods and technologies or improvement of the existing ones. All of these lead to a competitiveness boost for the company, for the community and why not, for the society as a whole.

3. E.U. 's sustainable development strategy

Sustainable competitiveness is a result of certain factors, strategies and policies which lead towards a long term development ensuring sustainability on an economic level, social level and also by respecting and protecting the environment. EU's sustainable development strategy adopted during the Gothenburg Summit in 2001 establishes that "*sustainable development rests on four separate pillars – economic, social, environmental and global governance...*".

From the surrounding environment's perspective, competitiveness and sustainability are mutually determined, both on national and company level, so that acknowledgment of these aspects expresses through admitting the need of taking some measures for diminishing the impact which can manifest: in the form of supply flow disruption caused by meteorologic issues, significant price modifications for the supplied resources or under any other aspects. Activity improvement through obtaining a friendly relationship with the surrounding environment can be achieved by adopting different positive result practices, such as:

- efficient usage of the natural resources and increasing the percentage point of used, recycled resources lead to cost reduction thus ensuring these resources' future existence as well as pollution reduction;
- reducing carbon emissions with the purpose of diminishing the negative impact manifested through climate changes.

Agriculture is the sector which is most affected by these negative effects manifested through temperature growth, diminishing of the water resources and extreme meteorological phenomena. Within the context of an upward energy consumption trend, optimization and performant technologies implementation represent just a part of the solution. Investments made in the development of reduced emission technologies generate new opportunities such as benefits for the entire biosphere, a clean natural environment whose consequences are a better life for all organisms, for the entire ecosystem.

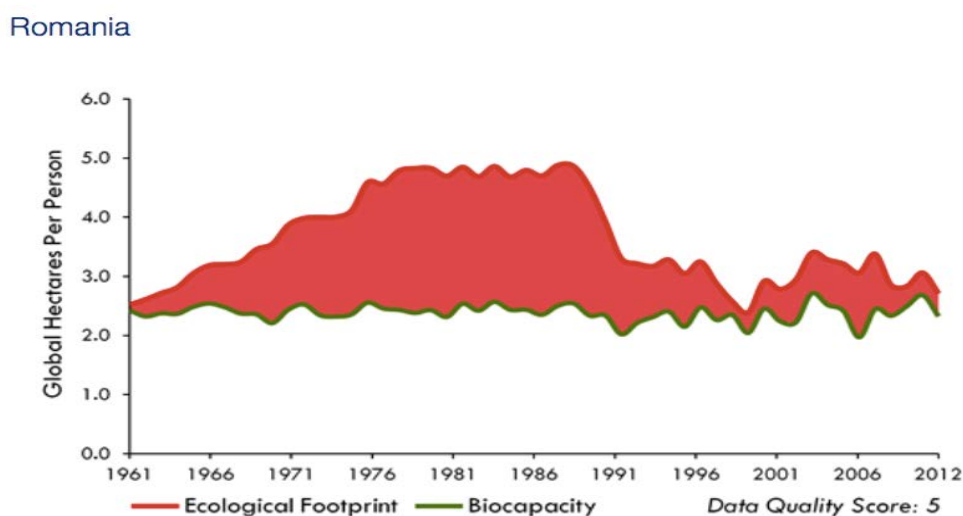
4. The social responsibility of the company (RSC)

An often found concept is the *corporation/company social responsibility* (RSC) with environment protection playing an important role in every action undertaken under this principle - of the returning towards society (www.responsabilitatesociala.ro). Specific research carried out in this domain (www.footprintnetwork.org) shows that ever since the beginning of 2015 and up until mid August, the human being depleted planet Earth of all of the resources which it can generate within a year, the obvious conclusion being that humanity's ecological footprint exceeds the biocapacity of the planet.

4.1. The ecologic fingerprint - valid instrument for calculating the impact humans have on earth

Specialists define the ecological footprint as being the instrument used to measure the pressure exerted by the human population over the biosphere reported to the planet's productive surface (land and water), in order to obtain the necessary natural resources and also for absorbing the generated waste. The term of biocapacity is used in order to comprehend the total ammount of the productive areas. It can be measured in global hectares (GHa). For Romania, the situations looks like this:

Figure no. 1. Ecologic footprint and biocapacity in Romania



Source <http://old.footprintnetwork.org/en/index.php/GFN/page/trends/romania/>

The connection is confirmed even after the 1990's when the industrial activity decline began. Complex re-technologization and modernization processes were carried out in the areas where it still continued to function, one of the consequences being that the impact on environment had diminished.

Existing processed data for the 2012 levels indicate that the ecological footprint per inhabitant was of 2.7 GHa with the country's average biocapacity per inhabitant of 2.3 GHa resulting in a difference of 0.4 GHa. Unfortunately, the difference is a negative one with pressure exerted on resources exceeding the environment's generating and regenerating capacities by over 17%. If we are to focus on the world level average, there are less than 1.8 GHa available for each person. This value is constantly decreasing as the population keeps increasing and it becomes more obvious that the planet's productive surface is constant, if not slowly reducing (desertification, pollution, etc.).

The need for resource conservation and conscious management of technological development can be achieved especially through boosting the implication degree on a governmental level. Over the last hundred years the human being has changed the ecosystem more than he had previously done in his existence. There is a demand that certain set of rules, objectives and policies need to be set or met: maintaining soil fertility, protecting the biosphere, decreasing the fossil fuel dependency, developing renewable energies, complete waste recycling and reducing the raw material usage. Although the aim is clear enough and is widely accepted, apart from each individual's comfort, the economic calc can be considered as a major barrier. This is based on the cost profit relationship imposed by certain economic rules. Despite all of this, the public perception keeps becoming a constant burden for the companies, determining that these calculate their own competitiveness through less complex equations in which other parameters such as the image of a powerful brand that had been strengthened through social responsibility actions which is projected toward the client are introduced. Today, this level can only be achieved by displaying a friendly behavior towards the surrounding environment, reducing processes and raw pollutant materials and having a proactive attitude.

4.2. Company competitiveness and guaranteed durable development

The World Economic Forum defines competitiveness as being a set of institutions, policies and factors which determinate a country's productivity level (Tănăsoaica, L. G. - Organizational Management, Efficiency, Efficacy and Competitiveness, "Ovidius" University Annals, Economic Sciences Series, Volume XI, Issue 2/2011) and which, in its turn, determines the prosperity level which is offered by an economy (increased revenues, cost of living, etc.). Starting from these aspects, "going down" from national competitiveness to the economic braches area, one can notice that the term *competitiveness* is a broad notion holding many values.

The "*The Fourth Industrial Revolution*" concept which was defined by Prof. Klaus Schwab, founder and Executive President of the World Economic Forum, was introduced in the 2016-2017 W.E.F. Global Competitiveness Report. This *Fourth Industrial Revolution* is characterized by the convergence of technologies from areas which are coventional with robotics, digitalization and biotechnology. This is not a clasic revolving movement it's rather a passing, a transition towards the digitalization of these emergent domains with us witnessing a transformation with respect to everything surrounding us (what we produce, how we communicate, in transportation, energy and lastly – the way in which we interact with each other). Innovation, technological development and process optimization are efficiency premises, and efficiency is a necessary condition for competitiveness. In this context, competitiveness acquires durable values.

From a company level, along their way of maintaining the competitiveness level on the market these are also expected to comply with the conditions imposed by the sustainability and durable development needs. These conditions can bear many forms, of which:

- are imposed by national or supranational bodies acting as the main responsables for developing and maintaining an equitable and healthy society – pollution norms issued for the vehicle manufacturers, manufacturing of low energy consuming electric/electronic appliances, facilities for decomissioning old equipment/techniques and replacing them with new ones, "green technology" facilities, etc.;

- are imposed on the market as a consequence of the increase in the demand for bio products, electrical vehicles, reduced specific consumption equipment;
- auto-imposed, following RSC or the own desire of being eco-friendly. The suspicion that one of the above mentioned suppositions is masqued under the appearance of one's own desire may appear.

5. Carbon fingerprint analysis in the supply chain of the company

Within this context, company challenges are visible, highlighted and must be met under competitiveness conservation measures. Edgar E. Blanco analyzes the carbon footprint problematic within the supply chain (www.video.mit.edu - Recent research on carbon efficient supply chains) and uses a holistic vision to adress its limitation issues. With respect to this matter he proposes that the first step be measuring/evaluating the carbon footprint (methods, scope, precision) in all involved sectors and workplaces: offices, travells, raw material distribution centers, production units, store delivery, consumer delivery, consumption. Moreover, the product shelf-life, emerging road interactions and usage of different transportation means are also considered as important variables. In this equation so important for process efficiency, the author highlights the pressure which comes from a number of areas and which is imposed on the company: the governmental side – through regulation; available resources – suppliers; society; market/customers.

Sustainable development rests on three pillars: economic (efficiency and profitability), social (wellbeing, equity and social justice) and environmental protection (eco-efficiency, maintaining a stable natural resource database). For this to happen, the fight against our past and present actions consequences, alongside correction and improvement of future actions must be focused on: trying to control polluting actions and processes, developing and encouraging new and efficient technologies, conservation of natural ecosystems, ecological reconstruction of the areas which were affected by pollution as well as any other action lines which lead to identifying some resource exploitation methods which would also be in the best interest of future generations. The need for disseminating this behavioral concept among all participants to the planet's economic life of all areas/continents is obvious. This can only be achieved through education and by eliminating different practices, discrepancies between the standard of living among society's members, combating poverty, focusing on productive activities and encouraging traditional preoccupations and highlight renewable resources.

On a macroeconomic level, sustainable development represents a performance indicator which rests on the three pillars that can also be found at company level. One can no longer talk about financial performances without introducing the other two aspects into the squeme: social representation and environment protection. The company's main objective is no longer represented exclusively by profit because, by ignoring all of the other aspects, the company can lose its clients, market shares, position – all of these which lead to significant budget alloction in order to regain these customers trust and to rebuild the own brand image.

Competitiveness evaluation can be carried out through bases (the three pillars), dimensions which are inseparably conncted, without the ability of prioritizing one over the other. The ideal which leads to durable development can be found at the crossroads of the threee manifestation spheres. John Elkington introduces (www.economist.com/node/14301663 - Triple Bottom Line) the concept of the "triple bottom line" (TBL): the profit/loss balance; the social responsibility action results within a company's activity; the degree in which responsibility was showed towards the planet.

The Company must appy the balanced development principles. The theory which was launched in 1994 thus replacing the "last line" of the profit/loss balance within the value that the company has, judging by the three manifestation methods. Financial indicators are maintaining their purpose of identifying the profit or loss level and provides the management and the stakeholders with valuable information regarding its activity. The social dimension is defined through the company's local, national or global impact analysis as well as through parameters which include the employees – especially their number, their income levels, the way in which they influence the local economy, social services, culture, the educational system, health, the local budget incomes, etc. Environmental protection implication is evaluated both ways: the first way is by looking at the used

technologies and raw materials, at the resource usage level, generated waste and management methods whereas the second one evaluates it from the outside of the company implication activities: supporting educational programs, tree planting, cleaning campaigns, etc.

In this way, the TBL concept is transposed into "the three Ps" (profit-people-planet). In the author's opinion, only companies which are using the TBL system can keep track of the entire cost of their own companies offering examples of companies which chose to change their suppliers, to pay attention to the implications and be aware of ethical and ecological aspects regarding the place where the materials are coming from or the goods are made (Bangladesh, China, Mexico, Brazil).

6. Conclusions

Therefore, in order to increase performance and competitiveness, we consider that TBL theory can be implemented as a philosophy at the company level. Strategies and instruments for measuring non-financial performances and for integrating the vision on an organizational culture level can be developed. The social dimension can be aligned with the already adopted social responsibility component or it can help in defining it.

Although a middle ground between the three components with the purpose of comparing them is hard to find, within the current context, they are of high importance and actions the necessary steps taken with the aim of obtaining and maintaining sustainability must look at these three components, inseparably.

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