# Corporate Governance and Sustainability as Ecological Modernization

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1 Introduction. 2 Environmentalism. 3 Sustainable Development. Environmental Economics. Ecological Economics. 4 Corporate Governance. Corporate Sustainability. Compliance. 5 Ecological Modernization. History and Concept. Technology and Innovation. 6 Conclusion. Corporate Governance and Sustainability as Ecological Modernization.

#### 1 Introduction

In *lieu* of an economic standard of guidance merely expansionistic, based on the growth of consumption and in industrial production, arising in the 21st century, is a new generation of State reform that orients itself for the promotion of sustainable economic development with environmental responsibility.

The preservation of biodiversity, the pollution of the atmosphere, the water and the soil, the use of chemical products, the depletion of natural resources, the consumption of non- renewable natural resources and demographic explosion became the basis of criticism to the current model of development on the part of environmentalists, with the necessity to evaluate the use of the environment and its consequences.

In the pursuit of an ever increasingly efficient performance involving environmental themes, refocusing on a new perspective of public and private management and oriented for sustainability and environmental equilibrium always with an objective of quality of life and the construction of solidly and sustainably based foundations for development.

Initially, this article presents a summary of world environmentalism and its progression within the political and social agenda, demonstrating how the theme was gaining international accession. This growth reaches the point where it meets within the priority themes discussed in the scope of the Organization of the United Nations. The environmental question is to aggregate diverse branches of society as social movements, non-governmental organizations, political parties, academic theses and the companies experiencing and being part of the role of fundamental human rights.

Environmental challenges that until then were not accounted for by the economic sciences, were forced into an agenda, principally by the need to seek an economic model capable of ensuring sustainability of the home of humanity, the planet Earth.

The term economics comes from the Greek οικονομία, whereby "oikos" means house and νόμος means to administer. The same radical "oikos" from home is present in the word ecology, which is the junction of this with " $\Lambda$ ογία", which means study. It occurred that, for a long time, these two forms of knowledge shared the same object, and why not the same house, "oikos", although very little talked about. From this conversation, new fields of research arise within the economic sciences, such as the Environmental Economy and the Ecological Economy. In this context, sustainability was inserted as a necessity to treat the environmental problem allied with socio-economic needs.

Subsequently following, it will be to address the approach of corporate governance and its contribution to sustainable development, as relates to the importance of the commitment of corporations with the environmental question and ecological practices for its perpetuity; the relations between the State, the industry and the society in the face of a perspective of responsible industrial environmental management.

Finally, it will be to search for an analysis of the phenomenon of ecological modernization, understanding its origins within the European environmental setting and its introduction in current practices of companies; the importance of waste management and its connection with an ecoefficiency of production; as the business companies are facing the management of sustainability contributing to an ecological modernity.

From there, consequently, will come an analysis of the evolution of the environmental movement and how this movement arrives in the 21st century as an important reference for the sustainability of economic enterprises that are connected to the survival of the planet and the human species.

#### 2 Environmetalism

A concern about the protection of nature arose in a systematic form at the end of the nineteenth century and the early twentieth century. It was an organized movement principally in Europe and the United States, whose main attention was given to the degradation of natural ecosystems due to increasing urbanization and industrialization occurring in that time epoch. <sup>28</sup>

Protection to the environment was developed by environmental associations such as the Sierra Club, the first non-governmental organization dedicated to the care of the environment, and in some ways, also the scout clubs.<sup>29</sup> The environmentalists of the time did not concern themselves with the perpetuation of the human being on the planet. The ecological question, when approached, dealt with specific aspects, such as the creation of natural reserves or the protection of a certain species at risk of extinction. <sup>30</sup>

<sup>&</sup>lt;sup>28</sup> McCORMICK, John. Rumo ao paraíso. Rio de Janeiro: Relight Dumam, 1992. p. 76

<sup>&</sup>lt;sup>29</sup> Dr. BRENNAN, A. and LO, Y. S. **Environmental Ethics.** Available on line at: <a href="http://environmental/="">http://environmental/="">Posted in</a>/http:>June 3, 2002. Revised on January 3, 2008. Last checked on: 15 Mar. 2018.

<sup>&</sup>lt;sup>30</sup> McCORMICK, John. **Rumo ao paraíso**. Rio de Janeiro: Relight Dumam, 1992. p. 42.

When the UN was created in 1945, the environmental themes did not present much relevance, coming-up as the subject to be approached only in 1949 at the first The United Nations Scientific Conference for the Conservation and Utilization of Natural Resources. In a climate of the Post-War and the beginning of the Cold War, the Conference had no great repercussions, but it was the beginning of environmental discussions on a global level. It can be asserted that its success was in the sense of being the pioneer in implementing an ecological awareness in the world, as a base for later conferences.

In the decade of the 1960s, diverse factors contributed to the birth of a new environmentalism: the constant nuclear testing, the occurrence of natural catastrophes (smog, and oil spills), the negative reflexes of the use of agricultural pesticides, such as DDT and the force of the movements for civil rights and against the Vietnam War, had been made to emerge in the United States and the world with a new consciousness, based in a growing environmental movement in the years of the 1970s, in the words De John McCormick:

Around 1970 the environmental crisis was no longer a silent crisis. A new mass movement had arisen, and a new issue was beginning to find its way into the public policy agenda. Increasing scientific evidence has confirmed many of the fears of amateur activists and ecologists; The human race was quickly using its stock of natural resources and contaminating its nest during the process. Interest increased, and a controversial debate was born over the limits of growth, centered on the Malthusian postulate that crisis and collapse were inevitable, unless the population growth and the exploitation of resources were controlled. The prophets of the apocalypse have arrived. <sup>31</sup>

In 1968, there occurred in the city of Paris, a new United Nations conference, The Paris Biosphere Specialists Conference. It consisted of a large majority of scientists and with the presence of some heads of State. This conference stood out for its recognition of the integral elements for the treatment of the environment: human societies and the Earth's natural systems; it thereby appearing as a new form of thinking about the relationship of man/nature, before only seen in opposite fields.

This event also stands out because it was the first conference on the environment to be organised by UNESCO (The United Nations Educational, Scientific and Cultural Organisation) and not by FAO (The Food and Agriculture Organization of the United Nations), the former keeper of the environment folder at the UN. This is significant because it shows that the environmental question ceases to be treated as a question between food production and the use of the planet's resources, by entering into a more scientific and complex scope.

In 1972, The United Nations Conference on the Human Environment was held in Stockholm, Sweden, recognizing, by the influence of the Paris conference, the relationship between man and nature. This conference already started with the participation of more heads of State, as well as new actors who were non-governmental organizations (NGOs), such as the highlighted, Greenpeace, that established itself as an NGO in 1971, precisely to attend this convention.

During the Stockholm Conference, Canadian Maurice Strong presented the idea of "Eco-development" in an article, "Only One Earth: The Care and Maintenance of a Small Planet" from Ward and Dubos (1972). According to this line of thought, the green areas of peripheral countries needed special care, since the world's largest biological reserves were in the hands of countries with few resources to protect them. Thereby arose a division of in the world's leaders into two currents

<sup>&</sup>lt;sup>31</sup> McCORMICK, John. **Rumo ao paraíso.** Rio de Janeiro: Relight Dumam, 1992. p. 81. 4

of thought, which were already being delineated by the North American environmentalism since the beginning of the twentieth century, i.e. the current preservationists and conservationists. <sup>32</sup>

The current preservationists, that represent the countries of the North, that part of the conception that the green areas in the underdeveloped States should not be in any way or form be touched. They are in favor of economic zeroism, saying that economies should no longer grow and consequently consume more natural resources. Sharing of neo- Malthusian ideas, seeing the eagerness for the of development of the underdeveloped countries the possibility for depletion of land resources. Highlighted here is The Club of Rome, with its study elaborated by Dennis L. Meadows, "The Limits of Growth".

The current conservationist, that represents the countries of the South, highlighting Brazil, defends that growth would not be intrinsically associated with environmental degradation, believing in the opposite, that is, the lack of growth of these regions and their poverty would generate pollution and environmental degradation. With this reasoning, a poor country, because of the diverse socio-economic difficulties, would not have the funds to apply in systems, such as: waste reuse, clean energy arrays, etc. This current defends that economic growth is necessary to achieve certain determined environmental demands, being necessary incentives on the part of the countries of the North, such as the transference of clean technologies and international funding.

Environmental activism has gained force since the years of the 1970s, therein articulating the providing of answers to environmental concerns, especially in the countries of the North. After the release of works, such as the article, "Blue Print for Survival" published by the British magazine "The Ecologist" in 1972, the book "Small is Beautiful" written by Schumacher in 1973 and the cited, "The Limits of Growth ", environmental militancy had become a body, firming itself up as a radical critique of society and its productive system, establishing a direct confrontation with the State. <sup>33</sup>

It was a moment of great agitation, young movements organized around the world claiming change and establishing direct criticism against the dominant culture. In this first moment, the agenda of the environmental movement was presented, not as a political agenda, as established in the years of the 1980s and the 1990s, but as one of the ways of contesting the hegemonic thought of the time, expressed in the Hippie movement and the idea of "Flower Power".

With a growth during the rebel decade of the 1970s, the environmental movement, from the years of the 1980s began to suffer modifications. The militancy that was once formed mainly by young contesters, not necessarily specialized in environmental issues, it became a larger and multifaceted framework of specialists in the most diverse areas of knowledge. At this very time, strong economic crises, such as the oil crisis had forced a revision of the speeches by both the nations and the liberal policies and the environmental movements. <sup>34</sup>

<sup>&</sup>lt;sup>32</sup> DIEGUES, Antônio Carlos Sant'ana. **O Mito moderno da natureza intocado**. Sao Paulo, Ed. Hucitec, 2004. p. 54.

<sup>&</sup>lt;sup>33</sup> TAVOLARO, Sergio Barreira de Faria. Movimento ambientalista e modernidade: sociabilidade, risco e moral. Sao Paulo, Ed. Annablume, 2001. p. 43.

<sup>&</sup>lt;sup>34</sup> Mr. Lenzi, Cristiano Luís. Sociologia Ambiental: Risco e Sustentabilidade na Modernidade. Bauru: Edusc, AnPOCS, 2006. p. 38.

Intending to enter definitively on the political agenda, environmentalists softened their discourse, partly ceasing the direct attacks on the market economy, using the green flag parties and the non-governmental organizations as pathways to propagate their ideas.

Within the environmental agenda of the 1980s, the issue of the ozone layer stands out, a phenomenon that had raised several theories about its causes and effects. While some claimed that the ozone layer surrounding the earth was thinning, filtering less ultraviolet rays sent by the sun, generating an increase in the Earth's temperature and the incidence of skin cancer, others already claimed it was not a decreasing layer, but rather a hole located in the polar regions that would lead to the thawing of the ice-caps in the Arctic and in Antarctica.

Even without a clear definition of the problem, a convention of the United Nations was held in Vienna in the year 1985 to discuss the theme of the ozone layer. This convention caused the formulation of a treaty of actions for the protection of the ozone layer, but accordingly, this was found to be an empty attempt, by not having any binding effect. This situation changed in 1987, as a result of The Montreal Protocol on Substances that Deplete the Ozone Layer, which was responsible for making the Vienna convention into something practical, through actions, such as the prohibition of the use of CFC (chlorine fluoride carbide), being one of the first effective actions of the UN as a regulator of industrial production.

Also, in the year of 1987, there was the launching of a new document, the report, "Our Common Future" by The Brundtland Commission, which encased the debate between the conservationists and the preservationists. It created a new concept, that is, of "Sustainable Development", in which development is possible and, in some ways, necessary to the world, provided that future generations are always to be taken into account, which demands new standards of consumption and the priority use of renewable resources. The environmental problem became viewed as something global and the scientific community began abandoning the issue of Ecodevelopment for the adoption of Sustainable Development.

#### 3 Sustainable Development

The concept of Eco-development was created by Maurice Strong, the Secretary-General of the United Nations Conference on the Environment and Development and expanded by the economist, Ignacy Sachs, who incorporated other concerns beyond those related to nature, as questions of economic, social, cultural and participatory management and ethical issues. <sup>35</sup>

This concept evolved into the idea of Sustainable Development covering other areas, essentially at a point of equilibrium between economic growth, social equity and protection of the environment. The notion of Sustainable Development served as a basis for the Brundtland Report, that the basic premise was: "independent of the existence of social actors involved in the

<sup>&</sup>lt;sup>35</sup> EDINGTON, Isaac. **Importância da Informação para o Ecodesenvolvimento**. Available on line at: < Http://www.ecodesenvolvimento.org/colunas/isaac-edington/importancia-da-informacao-para-o> Last checked on: 30 Apil 2018

responsibility of environmental degradation, the search for solutions would seem to be a common task for all mankind". <sup>36</sup>

In 1987, the World Commission on Environment and Development (WCED) also began to use the term Sustainable Development to refer to economic growth which also prioritized preservation of the environment. The protection of the environment required the existence of recutting, both the global sphere as well as the local sphere, a vision that was established in "Agenda 21 Global", in which more than 170 countries were committed to during Eco-92.

Faced with the approach and debates of various authors, more concrete theories arose that served as a base for a number of discussions regarding the environment, especially over the last several decades. With environmental problems becoming more evident, theories and models were formulated which tried to reconcile economic development with the taking care of nature, in an attempt to ensure good living conditions for the current generation, as well as for those of the future.

Among the theories of economic development that emerged from those debates and discussions, special attention was given in the workings for new areas in economic science such as Environmental Economics and Ecological Economics, which came to counteract the paradigm of economic growth or development to include the problems of socio-environmental concerns. In this sense Hauwermeiren states:

"The emergence of the concepts of Eco-development and Sustainable Development is at the root of the hybrid theoretical field that has come to constitute itself as the Ecological Economy, so that it is defined by some theorists as the science of the "management of sustainability". <sup>37</sup>

#### 3.1 Environmental Economics

Known as Neoclassical Environmental Economics, it is the grounds based on the standards of neoclassical economics, arising from the moment when there was the necessity for incorporating environmental problems and sustainability criteria on the part of mainstream economics. The finding that the environment is a supplier of natural resources and the receiver of waste and residues caused the economy to be concerned more about the scarcity of resources and also about the pollution generated in the ecosystem.

For the environmental economy, nature is treated as the supplier of inputs that can be perfectly substituted with technological advancement or by work itself, beyond the search for the best allocation of resources, in order to determine the levels of extraction and maintain a desirable productive capacity. The environment is neutral and passive and is focused on measuring the

<sup>&</sup>lt;sup>36</sup>Report of the Word Commission on Environment and Development. General Assembly. Available on line At: <http://www.un.org/documents/ga/res/42/ares42-187.htm>. Last checked on: 18 April. 2018.

<sup>&</sup>lt;sup>37</sup> HAUWERMEIREN, S. V. **Manual de economia ecológic**. Santiago: Rosa Moreno, 1998. p. 7 apud FERNANDEZ, Brena Paula Magnus. Available on line at: https://revistas.ufpr.br/made/article/viewFile/19246/14460. Last checked on: 25 Mar. 2018.

negative impacts caused by the economic system. These impacts take the form of negative externalities, and it is necessary to create mechanisms that promote their internalization.

With the dissatisfaction of researchers in the economy and of the natural sciences with the ability of neoclassical economic theory and its theoretical reductionism in proposing solutions to environmental problems, sharing the idea that the complexity of the problems requires a transdisciplinary treatment, to bear the Ecological Economy. <sup>38</sup>

## 3.2 Ecological Economics

The unbridled exploitation of natural resources made for the rising concern to reconcile the economy with the survival of humanity for the long-term. The ecological economy was institutionalized with the establishment of the International Society and Ecological Economy (The International Society for Ecological Economics – ISEE) in 1989 and with the periodic Ecology Economics, whose first number arose in 1989. <sup>39</sup>

There is a current, yet non-influential, in economic thought that tries to broaden the scope of the analysis of environmental problems, claiming the contribution of other disciplines with the general objective of presenting a systemic view on the environment/economy relationship.

Thus, biology and physics exercise fundamental roles in the analysis, since it is through biological physical studies which make it possible to define the limits of the resources and the amount of pollution that the planet is capable of withstanding. With the integration of the concepts between the social and natural sciences, will make it possible to have a better perspective on the future of the environment

Sustainability is the central priority of the ecological economy, and this current is called by some authors as "sustainability economics", because it concerns future generations and not only with the well-being to be for those in the present. Different from that of the neoclassical school which is trying to annex the concept of sustainable development within its methods and structure; an ecological economy evolving at the essence of the proposal for sustainable development.

The ecological economy rejects the view of the neoclassical environmental economy, proposing that the disregard of the biophysical-ecological aspects of the economic system leads to a partial and reductionist analysis of the interfaces between economics and the environment. In methodological terms, the ecological economy offers a pluralistic approach, in which it seeks to integrate the contribution of various theoretical perspectives to face the complex environmental problems.

The common point between these two currents is the focus on the interactions of the economic system with its external environment, this is, in what manner the economic system affects

<sup>&</sup>lt;sup>38</sup> ANDRADE, Daniel Caixeta. **Modelagem e valorização de serviços ecossistêmicos**. Uma contribuição da economia. Tese de doutoramento. Unicamp. Campinas, 2010. p. 11. Available on line at: < Http://repositorio.unicamp.br/bitstream/REPOSIP/286031/1/Andrade DanielCaixeta D.pdf>. Last checked on:28 April, 2018.

<sup>&</sup>lt;sup>39</sup> CECHIM, Andrei. A natureza como limite da economia. A contribuição de Nicholas Georgescu- Roegen. São Paulo: Editora Senac, 2010. p. 138.

the ecosystem and in what manner the degradation of the environment can constrict economic growth.

But the great distinction between the two currents is the vision of the future. In the neoclassical environmental economy, the future is something that refers to economic growth, with a lot of prosperity, wealth, filled with technological advances whereby human capacity is going to be able to organize everything, so as to have an order for the social and environmental questions. Yet, the ecological economy, brings a contesting vision to this highly optimistic setting; it is extremely cautious about this excessive growth and the ability to recover the ecosystem in the face of the numerous impacts caused by growth<sup>40</sup>. According to the Economist Andrei Cechimi, Ecological Economy has undergone a slow and gradual growth, with contributions from thinkers such as:

"(...) The consolidation of what is now called the ecological economy owes tribute to the independent contributions of Kenneth E. Boulding, Nicholas Georgescu- Roegen, Herman E. Darly and Robert U. Ayres and Allen Kneese in the decade of the 1960s, although the expression ecological economy was not used by them at the time." <sup>41</sup>

The complexity of environmental problems does not permit the environmental issue to be analyzed only by the optics of a discipline. On the contrary, it requires an analytical integration of various perspectives to comprehend the whole. The environmental and social aspect is related to the economic views which need to work in a balanced way as an essential condition for sustainability. The multidisciplinary presented in the Ecological Economy is a holistic effort, in which the whole is greater than the sum of the parts, principally when this whole is a complex system such as nature.

For Professor Queiroz Ribeiro, there are several facets in the society/environment and the economics/environment relationships. He points out that the environmental issue is important for society, in the present and in the future, and must be treated as actions of the State, society and of the economy. "The concern is to make the economy and society work in a regulated form." <sup>42</sup>

Thus, the economy is embedded in the field of social sciences which studies the relationships of society and the activities arising from the scarcity of goods. All this occurs within a market, with the interaction between consumers and producers. By means of an economic policy, good governance can be undertaken which coordinates private, public, individual and collective interests, making the purpose of production to constitute in social wealth, searching for a betterment of life in society, which includes responsible treatment of the environment.

#### **4 Corporate Governance**

The principal that contributed to the dissemination of Corporate Governance in the world and in Brazil were: the publication, in 1992, in England, of the Cadbury Report; the enactment, in

<sup>&</sup>lt;sup>40</sup> MUELLER, Charles C. Os economistas e as relações entre o sistema econômico e o meio ambiente. Brasilia: Editora Brasília, 2007. p. 98.

<sup>&</sup>lt;sup>41</sup> CECHIM, Andrei. A natureza como limite da economia. A contribuição de Nicholas Georgescu-Roegen. São Paulo: Editora Senac, 2010. p. 139.

<sup>&</sup>lt;sup>42</sup> RIBEIRO, Queiroz. **Sustentabilidade. Um tripé para garantir o desenvolvimento**. Vitória/ES: Secretariat of management and human resources. Magazine Innovates, 2015. p. 12.

2002, in the United States of the Sarbanes-Oxley Act (SOX), after the scandals of Enron and WorldCom companies; in Brazil, in 1995, the creation of the Instituto Brasileiro de Conselheiros de Administração (IBCA), which from 1999, became the current Instituto Brasileiro de Governança Corporativa (IBGC). <sup>43</sup>

The term corporate governance arises to define the rules that regulate the relationship within a company as to the interests of shareholders, controllers and administrators. It is the system by which organizations are directed and monitored. The objective is to seek the perpetuity and the increase in the value of the economic enterprise in search to define principles that aim to compose the various interests foreseen in laws, rules and internal regulations which govern the management of companies. 44

Currently, the concept of Corporate Governance is not only linked to the relationship of the owners (shareholders) of companies with their managers and their administrators. The modern concept amplifies the notion of responsibility mainly within the context where they are inserted. In a general way, it covers other interests, such as that of employees, consumers, suppliers, competitors and, principally members of the community in its surroundings (the stakeholders).

In a more modern concept, there is a broader view of the organization's performance in its social context. This new vision of corporate governance takes into account the social function of the company and its relationship to its entire public. Thus, the company needs to have a policy concerned with the preservation of the environment, a practice of governance that breaks down into actions which need to develop within its internal sphere, through codes of conduct, of ethics, of instruments that are to be observed and fulfilled by the various actors in their respective competences.

In Brazil, the recognition of the social function of the companies culminated with the creation of the Associação de Dirigentes Cristãos de Empresa (Association of Christian Leaders of the Company) (ADCE) in the decade of the 1970s, allied to the weakening of the State of Social Welfare. However, the concept of social responsibility gained space in the late 1980s and was consolidated between 1990 to 2003<sup>45</sup>. In recent times, the expansion of Corporate Social Responsibility and concepts linked to the theme have happened, such as business sustainability or business citizenship, which may have been in response to the new challenges emerging as the characteristics of globalization and the advent of technologies. <sup>46</sup>

<sup>&</sup>lt;sup>43</sup> SOUZA, Bruno Carlos. BORINELLI, Marcio Luiz. **Controladoria. Governança Corporativa**. Curitiba: Fael, 2016. pp. 212-213.

<sup>&</sup>lt;sup>44</sup> GUERREIRO, E.P. MONTEIRO, E.S. NANNI, H.C. **Desenvolvimento Sustentável e Governança Participativa: Arranjo Produtivo Local e Parque Tecnológico de Santos.** Available on line at: http://www.advancesincleanerproduction.net/second/files/sessoes/4b/5/e.%20p.%20guerreiro%20-%20resumo%20exp.pdf. Last checked on: 03 April 2018.

<sup>&</sup>lt;sup>45</sup> CUNHA, Maria do Carmo Aguiar da. **O que é responsabilidade social empresarial?** Available on line at: http://www.techoje.com.br/site/techoje/categoria/impressao artigo/477. Last checked on 09 May 2018.

<sup>&</sup>lt;sup>46</sup> HAMZE Amélia. **A Responsabilidade Social Empresarial e o Desenvolvimento sustentável**. Available on line at: https://educador.brasilescola.uol.com.br/politica-educacional/a-responsabilidade- social-empresarial.htm. Last checked on: 09 May 2018.

A growing integration of society with globalization, contributes to the environment of the megacompanies which possess the capacity of influence in the entire world. However, any company, independent of its size and capacity, generates socio-environmental impact. With the evolution of the environmental question and its implications in the process of decision-making and production, it is necessary that basic criteria of corporate governance are fulfilled. When we handle governance, we also deal with a vision of a shared world view, independent of the action or the size of the enterprise, giving importance to acts while thinking globally as a guarantee of a healthy and prosperous environment.

Governance means management and aims to seek the best results for the organization, whether public or private. In July of 2001 the "White Book on European Governance" was published, establishing a direct link between good governance and the future of Europe. By establishing a paradigm of good governance, through a set of principles, the Commission considered that the union strengthens its global responsibility, a dimension that must count on all stakeholders, governmental and non-governmental, and to be a criterion in the adoption and execution of policies. In the world of globalization and human rights, but also global threats, a process of decision participation and transparency for adequate management of resources is increasingly a necessity and a demand for a contemporary, post-national world. 47

The basic principles of corporate governance must have at least the following items: disclosure (adequately inform), accountability (responsibility to take account for actions taken), fairness (proper treatment without discriminatory policy, be it shareholders or stakeholders) and corporate responsibility (sustainability and compliance).

Next, the role of sustainability will be addressed in companies that aim to have their image associated with a business model in which everyone wins: clients, employees, suppliers, society and the environment, all acting in a responsible form. Sustainable management avoids the wasting of investments, natural and human resources, conforming to the understanding of Professor Queiroz Ribeiro: "Avoiding the practices of wasting, streamlining resources and with people working at a higher level of awareness and commitment as are government actions that identify with sustainability". <sup>48</sup>

#### 4.1 Corporate Sustainability

Sustainability is a term used to define human actions and attitudes that in an organizational model aims to maintain growth and the perpetuity of companies, taking into consideration ethical, social, economic and policy variables. Socio-environmental performance must walk parallel to economic performance, respecting the environment, to the extent that it fosters qualitative and quantitative strategies to diminish the process of destruction in which nature finds itself encountering.

<sup>&</sup>lt;sup>47</sup> SANDE. Paulo de Almeida. **Governança.** Available on line at: <a href="http://euroogle.com/dicionario.asp?definition=567">http://euroogle.com/dicionario.asp?definition=567</a>. last checked on: 10 March 2018.

<sup>&</sup>lt;sup>48</sup> RIBEIRO, Queiroz. **Sustentabilidade. Um tripé para garantir o desenvolvimento**. Vitória/ES: Secretaria de Gestão e Recursos Humanos. Revista Inoves, 2015. p. 13.

Improving the performance of a company depends on how it is contributing to society. Therefore, for this, it is a paradigm shift that prioritizes the continuity and perpetuity of the organization. A long-term vision into the future, aiming for it to continue for the various generations of its partners, but also that it can attend the objectives of society.

There are two principles that have the fundamental importance of promoting entrepreneurial sustainability: Corporate Governance and Innovation. Only supported by good practices of corporate governance can a company ensure that the interests of the various stakeholders are preserved. A sustainable company is just that one which recognizes and values its interdependence, not only with internal agents, but also with its collaborators, as well as with the external agents to the company.

Innovation is a catalytic element of the shift in the above-mentioned paradigm, creating new products, redesigning existing processes and rethinking the business model of the organization. The Fundação Brasileira Desenvolvimento Sustentável (The Brazilian Foundation for Sustainable Development-FBDS) believes it is important to foster this new posture for Brazilian corporations and has been developing forms of partnerships, seeking to help the company identify opportunities and deploy new practices.

Already, management is above all, a concept of how the administration of a system should be done, in a way that assures proper operation, the best performance, as well as continuity. Management presupposes a rational utilization of the potential of available natural and human resources, extracting the maximum of underutilized or simply ignored resources; by well applying these resources, companies will construct a good reputation and are consolidated into the market.

The failure of a company can affect the local community, the municipality, the State, a country, and until, even the world. That is why there needs to be a business plan, so as to know what to do, where you want the business to go, to get qualified advice and administrators that are aligned with the reality of the company, thereby avoiding abuses of power, errors, fraud and corruption. Governance provides that managers and counsel are evaluated for their actions. Corporate social responsibility in a restricted sense must be understood as an obligation in having the organization respond to its own actions or to whom it is linked. 49

In this sense, it can be considered that the practice of corporate governance goes beyond than just working on the external image of organizations, not just being about marketing practices. When adopting the key elements of transparency, accountability, equity and accountability as a base of support, companies become valued in the market, attracting new shareholders, suppliers, consumers and customers, in addition to having a greater intake of resources and qualified professionals.

As an example of good corporate governance, we can quote the ABN AMRO Bank, an international bank of Dutch origin, present in 53 countries, with over 4,500 agencies in the world. Having excellence in its relationships is the principle to developing its processes, products, services and mode of action with a focus on sustainability, creating long-term relationships and sharing its

<sup>&</sup>lt;sup>49</sup> KARKOTLI, Gilson. ARAGÃO, Sueli Duarte. **Responsabilidade Social: Uma contribuição à gestão transformadora das organizações**. 2a ed. Petrópolis, RJ: Vozes, 2004. p.44.

beliefs and values, combining the relative positioning of the company with its employees and stakeholders in the competitive and institutional environment. The basis of the institution is its structure of its values of Corporate Governance and Sustainability Management, seeking to develop ethics and preservation of the socio-environmental on behalf of its human resources, able to cause changes that can influence the market and transform society. O Programa Amigo Real (The Real Friend Program) based on the Estatuto da Criança e do Adolescente (The Statute of the Child and Adolescent), facilitates customers, employees and suppliers of the bank to direct financial resources to the Fundos Municipais dos Direitos da Criança e do Adolescente (Municipal funds for the Rights of the Child and Adolescent). <sup>50</sup>

Thus, behind the conception of good corporate governance, one can see the fusion of social, environmental and economic principles of a company that wants to not only make a profit, but desires to become a vector of prosperity for all of its surroundings. In the words of Professor André Baptista Barcaui, the rule of law is one of the characteristics of good governance: "(...) Good governance must guarantee total protection of human rights, pertaining to people belonging to the majority or social, sexual, religious or ethnic minorities. <sup>51</sup>

A corporate governance of quality contributes to sustainable economic development, providing improvements in the performance of the business. With this, it directs the institution to a solid future without the risk of compromising its image and business. "Sustainable development is that which attends to the needs of the present without compromising the possibility for future generations to attend their own needs". <sup>52</sup>

In the search for sustainability and growth, organizations need to keep their documentation and information safe from how their business is working, as well as to prove that they are adopting good corporate practices. For this, organizations need to be compliant, or be in compliance.

## 4.2 Compliance

In addition to conquering the market and having the objective aimed at perpetuity, the function of compliance should be aligned with the objectives of mission and vision as to the company. In that way, it is directed to having a vision of the future, of generating wealth, and of offering a greater value to society. There is more and more of a search for corporate governance with the need for its rules, whether internal, legal, public or private to regulate the actions of companies in the world and in the market.

Compliance is the activity of ensuring that the company is fulfilling in the implementation of all the regulations of the regulatory bodies, within the required standards mandated in the branch

<sup>&</sup>lt;sup>50</sup> SILVA, Christos Felipe Btsis. GUERREIRO, Evandro Prestes. NANNI, Henrique Cesar. **Sustentabilidade e governança corporativa: Um estudo de caso do projeto estrela do mar.** Available on line at: http://www.unaerp.br/documentos/1153-sustentabilidade-e-governanca-corporativa-um-estudo- de-caso-do-projeto-estrela-do-mar/file. Last checked on: 05 May 2018.

<sup>&</sup>lt;sup>51</sup>BARCAUI, André B. **Governança Corporativa e o PMO**. PMO Escritório de Projetos, Programas, e Portfolio na prática. ed. Rio de Janeiro: Brasport, 2012. p. 621.

<sup>&</sup>lt;sup>52</sup> **Report of the Word Comission on Environment and Development**. General Assembly. Available on line At: <http://www.un.org/documents/ga/res/42/ares42-187.htm>. Last checked on: 18 April 2018.

of its activity. And that goes as well for labor, fiscal, accounting, financial, environmental, legal, social security, ethics, etc.

Through the practice of compliance, a company can achieve their strategic goals with greater efficiency. The fulfillment by the company of all standards and regulations, and efficient internal controls, represent quality in business activity (respect for quality standards), resource savings (avoiding waste, fines and infractions) and strengthening the brand in the market (serious and ethical company).

ISO standards are global quality standards developed with collaboration among governments, consumers and businesses with the goal of sustainability and the proper functioning of organizations. ISO 38500 of international character is focused on the concept of Corporate Governance for Information Technology which offers principles to guide the leaders of corporations.

A set of factors that leads the company to have a healthy positioning in its entirety, adhering to the laws, norms, standards and regulations are internal and external. It is about the commitment of companies in adopting ethical behavior, improving the quality of life of its employees, of their families, of local community and society as a whole. It is associated with any action that brings sustainability for the organization and the external environment.

In searching for new opportunities and in seeking to attend the social, economic and environmental demands of the market, a good practice of corporate governance exceeds the limits of regulations, as far as companies increasingly worry about the ethical issues involved in each of their actions.

A company that thinks long-term, cannot postpone, improvise or practice palliative measures which only go to increase the risks over time. Poor management undermines the chances for the survival of the company. Thus, it is necessary to invest in creativity, innovation and strategic planning to find solutions to environmental questions. Otherwise, many economic activities may be banned by reason of environmental, political and social pressures, because environmental degradation and social problems can be much greater than the economic results of the business. In that sense, Michel E. Porter defends the initiative of companies in the search for innovations:

"Without a doubt, some companies are pursuing these innovations without the need for regulation or anticipating them. In Germany and Scandinavia, where businesses and consumers are very attuned to environmental issues, innovation is not uncommon. In the United States, as companies and customers take on the mental attitude of resource productivity and the proportion that enhances knowledge about innovative technologies, perhaps regulation becomes less necessary." 53

Good governance should ensure that the processes of production and organizations produce results that meet the needs of society, and at the same time make the best possible use of the resources at their disposal. This also implies that natural resources are used sustainably, surpassing the thought that nature is fully available and can be exploited in any form and in the short term.

<sup>&</sup>lt;sup>53</sup> PORTER, Michel E. LINDE, Claas Van Der. Verde competitivo: acabando com o impasse. Competição: estratégias competitivas essenciais. Rio de Janeiro: Campus, 1995. p. 383.

### **5 Ecological Modernization**

Concern for the environment is not only in the political debate and in the area of the economy. Imposing strong changes in society and in the productive system, arouses also the interest of sociology with regard to the theme, emerging a branch dedicated to understanding the relations between society and the environment of "Environmental Sociology".

In Environmental Sociology, there exists new and old approaches that discuss how to confront the question of the environment. Worrying about the aspects of modern life, environmental sociology involves questions about the effects of urbanization, industrialization and the current means of production, and the relationship between society and the environment.

In trying to comprehend these processes, highlighting some currents of thought, are as such: ecological modernization, sustainable development and reflective modernization. These current thoughts go to improving and establishing both a relationship of complementarity, as if antagonism exists between. The very concept of ecological modernization is not something which possess a unique form and meaning, suitable for a better delimitation of the theme, which occurs in the following section.

# **5.1 History and Concept**

In a context of economic and political reformulation, affected by social transformations lived in the years of the 1980s, the first concepts of ecological modernization began to erupt in the centre and in northern Europe. The environmental movement was mitigating the radicalism of the years of the 1970s to establish a more conciliatory approach, seeking channels within the policy and the productive sector itself. It was in this scope that the idea was established to change and modernize the production of goods and services in order to preserve the planet. Thus, the predatory production adopted by capitalism became to be disputed, trying not to subvert the system, but to reinvent its way of producing, making it more efficient, profitable and ecologically responsible.

Following all of this effervescence that occurred in the environmental movement over the years, the academy was located, researching and addressing the environmental theme in its complexity, which was contemplated by a diversity of areas of the scientific field, being treated inside the biological, physical and human sciences.

The penetration of these matters within the political agendas gained strength with each passing day. Their political use had been growing in such a way that, sometimes subjects, such as sustainable development and ecological modernization extrapolate the fields of study of sociology, becoming a kind of ecological political discourse. <sup>54</sup>

The concept of ecological modernization over the last few years has come to gain space and strength within the discussions about the environment, exposing the need to rethink the current conditions of economic development. However, the continuous use of the term, though important, by showing the relevance of the theme, leads to a confusion of meanings. Mainly because it is a

<sup>&</sup>lt;sup>54</sup> LENZI, Cristiano Luis. Sociologia Ambiental: Risco e Sustentabilidade na Modernidade. Bauru: Edusc, 2006. p.43.

relatively new concept, the term ends being used both by protectors of the environment and by actors, seeking a legitimation for the degradation of the same.

The need to think about new ways of development grew as time went on. With the politicization of the environmental movement and the categorization of the environmental problem as a global issue, alternatives began to be thought of as strategies to this problem, among them Ecological Modernization.

Ecological Modernization arose in central and northern Europe, mainly in Germany, Holland and Scandinavia, establishing ways of evaluating how structural changes in production can impact directly on cohesive environmental policies. The discourse proposed by ecological modernization quickly reached countries and companies that began to see as a method in search for sustainable development, seeking to reformat the capitalist economy, drawing from this (and its search for growth) the responsibility for the environmental wear and tear of the planet.

Due to this close relationship among the political environment, the productive sector, the environment and society, the discourse of ecological modernization began to arouse great interest on the part of the social sciences, mainly that of sociology, political science and economics, in an attempt to understand all the facets and impacts of this phenomenon.

Seeking to ascertain empirical form of these new transformations, European authors used the concept of ecological modernization to assess the productive sector of the developed countries. From an analysis of the changes in their forms of production and in their reconfiguration of the productive chain, focused to add ecological rationality to economic rationality, conjugating public policies to ecological criteria. Due to their pragmatism and, appearing as an alternative ready to give concrete answers in the face of environmental problems, ecological modernization proposes the balance between environmental care and economic growth. This discourse became widespread in European business, government and academic circuits.

Formed within an area where most of the developed countries are located in Europe and in the world, ecological modernization according to the Christian Lenzi, needed some typical requirements for its development, which are:

"An open and democratic political system; an interventional and legitimate state with a differentiated and advanced infrastructure; broad environmental conscience and well-organised environmental organisations (NGOs), which have the resources to propel radical ecological change; organizations of business capable of representing producers in negotiations on a regional and sectoral basis; and experience and tradition with negotiated decision-making systems; a comprehensive environmental monitoring system that generates reliable and satisfactory public environmental data; a state-regulated market economy, which controls the production and consumption process; advanced technological development." 55

As a proposal of Ecological Modernization, independent of the reasons for its motivations, an environmental technology should be linked to policies that would emphasize efficient use of natural resources and the reduction in waste production, changing characteristics of the productive

<sup>&</sup>lt;sup>55</sup> LENZI, Christian Luis. Human Sciences Magazine, Florianópolis, Edufsc, N. 39, pp. 117-134, April 2006. pp. 121-122.

sector, as well as the creation and adaptation of methodological and technological resources, and forms of social and political organization.

## 5.2 Technology and Innovation

In the past, industries have been concerned about minimizing the effects of pollutants in the face of legislative impositions, already at the "end of the barrel", i.e. not in the productive process as a whole, but at the disposal end of the factory. Now, the concern is to incorporate clean technologies that not only reduce waste throughout the productive chain, but when possible, make sure that these wastes don't even exist.

Ecological Modernization is perceived as an understanding that the environment is going through a critical time. However, escaping from apocalyptic forecasts or radical changes of the current productive system, ecological modernization admits there are socio-economic institutions that are able to internalise the need to take care of the environment, able to overcome any supposed environmental crisis.

For supporters of Ecological Modernization, the main actors of the current times are the market economy and modern technology. In this sense, a way for consistent ecological change in the structural design of production, is able to repair the current failure responsible for environmental degradation.

For an organization to have competitiveness in the market, it is necessary to break the paradigm that competitive advantage is based only on an economic perspective (production by lower pricing and selling by the most expensive price) and move on to develop and highlight the social environmental pillars, without denying the economic, in its productive chain. In this way, the company should seek to reach the rationalization that the use of its resources, increase the quality, increase the partnerships, in search of shared benefits between interested parties via new businesses, that can sustain a competitive advantage over the long-term.

In that sense, Michel E. Porter explains how the Dutch are able to be the world leaders in floristry when they lack competitive advantages in the traditional sense: "The answer, among other reasons, is that they innovated at all the stages of the value chain, creating technology and highly specialized inputs that increase the productivity of resources and compensate for the country's natural disadvantages." <sup>56</sup>

Beside all this linkage between the market and the conception of what will become Ecological Modernization, authors like Weale in 1992 and Hajer in 1996 tried to expand the vision of their concept by proposing a reflexive approach on the subject-theme. It is expanding beyond the market vision and needs to seek change, adding to the question at issue, a greater diversity of social actors, setting limits on the performance of the market and encouraging the promotion of green technologies.

<sup>&</sup>lt;sup>56</sup> PORTER, Michel E. LINDE, Claas Van Der. Verde competitivo: acabando com o impasse. Competição: estratégias competitivas essenciais. Rio de Janeiro: Campus, 1995. p. 373.

In Reflexive Ecological Modernization, the debate on environmental issues began to circulate both in the productive environment and in the political-social; this was considered by Hajer as the demand for a stimulus to the debate in the search for standards and values that supported the process of which could not be conducted solely by the market. Hajer points out, according to Peter Christoff, the six fields of action for reflective economic modernization, which are:

"Where anticipation replaces reactive regulatory formulation and, in a new "pro- active" and critical role for science in environmental policy-making; at the micro- economic level in the shift from the notion that environmental protection increases cost, to the notion that "pollution prevention pays; at the macroeconomic level, in the reconceptualization of nature as a public good and resource rather than a free good; in the "legislative discourse in environmental politics where changing perception of the value of nature men that the burden of proof now rests with those accused as polluters rather than the damaged party and the reconsideration of participation in policy-making practices, with the acknowledgement of new actors, in particular environmental organizations and to a lesser extent, local residents; and the creation of new participatory practices for the inclusion of a move to end the sharp antagonistic debate between the state and the environment." <sup>57</sup>

The changes in these fields of action should be the result of the need for institutional transformations, as the environmental issue became more paramount in order to avoid the corrosion of the bases that underpin society today, which had been perceived mainly from the years of the 1990s, when the environmental discourse was established on the global agenda as one of the main points of discussion in the new times.

From the point of view of reflective Ecological Modernization, a market free of any regulation would not be able to support a production where environmental concern was concerned. The reason for such a statement stems from the rules themselves, present in a classic liberal economy. In this type of economy, the law of supply and demand would not be able to cease with the exploitation of a product whose demand remained high, which could mean an overexploitation of a certain resource, which without norms to regulate its extraction, would be vulnerable to the occurrence of several attacks on the environment, since in the foreground, immediate profit does not combine with environmental sustainability.

Another criticism established the idea of leaving to the market, the responsibility of guardianship over the environment, stemming from the impotence of this in protecting public goods of a diffuse character, such as air and the waters of the seas. These goods do not know borders, nor can they be quantified for sale, and therefore, cannot establish a consumer relationship from its use. However, their preservation continues to be of vital importance to humanity.

As the market lacks the ability to fully drive the protection of the environment, establishing its link with the economy, authors such as Weale, Hajer, Beck (1992) (1996) (1996), among others, considered that in order to achieve the connections between market demands and ecological demands, the state must have the guiding role in promotion of policies proposed for the environment, used by Reflective Ecological Modernization.

According to the theoretical foundations of Reflective Ecological Modernization, the decision-making process should give way to dialogue among civil society groups, social

<sup>&</sup>lt;sup>57</sup> CHRISTOFF Peter, **Ecological modernization**, in: Environmentalism: critical concepts, London Ed. Routledge 2002. p. 482

movements and the state in building environmental policy. Through an association of all these participating actors, an ecological reform can be shaped that assumes responsibilities and inserts an ethos in society's sensibilities towards environmental aspects.

A more critical view and radical, attacks this kind of thinking, by understanding it as a technical and industrial discourse, removed from social demands, seen as a form of legitimization and reinvention of the capital for these new times where the environmental question is being taken into account. This new stage of capitalism aggregates the ecological question as a way of benefiting, and in a way, maintaining the economic question as sustainable, recusing political and social aspects.

One of the exponents of this way of thinking is Janicke who believes that Ecological Modernization, is a capital strategy to minimize costs, a form of partial adaptation of the productive system, in an attempt to respond to the yearnings of the new times. Following this is a snippet below where Peter Christoff exposes part of the thought of Janicke:

For Janicke: "It is fundamentally a technical cost-minimization strategy for industry and an alternative to labor-saving investment-a form of "ecological rationalization" which will lead simultaneously to greater "ecological and economic efficiency. It is primarily seen as a strategy intended to maintain or improve market competitiveness, in which the environmental benefits of such technological change are incidental rather than a core concern of innovation and implementation.<sup>58</sup>"

The critics address that Ecological Modernization is very much concerned with the expenditure of natural resources, but does not attach itself to a vital point of the distribution of these resources, and going beyond, that of the distribution of environmental damage itself, evoking issues such as environmental justice. Henri Acselrad very vehemently exposes that populations in situations at-risk (most vulnerable) are those which are the most environmentally affected in the absence of primary policies, such as that of basic sanitation, and the low capacity for action against situations of environmental injustice. <sup>59</sup>

The main environmental villain in Acselrad's vision is the poor distribution of income, treating it is rather as important to change the productive way and the way in which the individual and the company relate to the natural resources and their waste. All this debate cannot be closed within the economic cycle, also embracing the theme of socio- environmental justice. And, in the words of Lenzi, always on the basis of human rights:

"While the theory of EM associates environmental sociology with an ecological restructuring of industrialism, the concept of sustainability, as exposed by the Brutland Report and other authors lead us to conclude that environmental sociology would not be possible without an engagement without a theory on human rights. In this sense,

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<sup>&</sup>lt;sup>58</sup> CHRISTOFF Peter, **Ecological modernization**, in: Environmentalism: critical concepts, London Ed. Routledge 2002, p. 482.

<sup>&</sup>lt;sup>59</sup> ACSELRAD, Henri. Justiça Ambiental – Ação Coletiva e Estratégia Argumentativas in H. Acselrad, J. A. Pádua, y S. Herculano (eds.): Justiça Ambiental e Cidadania, Relume Dumará, Rio de Janeiro, 2004.

environmental sociology is an eminently normative sociology that seeks its source of inspiration in basic human rights."60

#### 6. Conclusion

With the turn of the 21st century, the world agenda began to tend to the side of those who were concerned with environmental risks, coming from the productive processes. Arising in this context, are those questions about the need to think about environmental policies, in the face of an emergency that the developmental patterns have been imposing on the planet since the beginning of the Industrial Revolution.

Human exploitation of natural resources brings consequences for the environment. Under an economic point of view, degradation of the environment is caused by man, more precisely by the production model adopted by most countries. A model that has as its priority in the consumption and production goods, and therefore, makes nature the supplier of raw materials, using nature even further as a container of its waste and residues.

In the economy, there is a need to look to economists to better understand the relationship between the environment and society, together with the study of economic variables and the capacity of the planet's processing of waste, so as to live in harmony with the environment. We seek growth, social development and parallel defence and protection of an ecologically balanced environment.

In the branch of the social sciences, these discussions were raised to such an extent that sociology created its own strand for a discourse of environmental questions, that of environmental sociology. Many authors point to the need for sociologists to express greater concern about environmental questions, since many environmental problems, which are being faced today, are rooted in the processes of social change, found to exist in economics, culture, science and politics.

Bringing a conceptual reconstruction of environmentalism and sustainable development, makes it clear that these approaches contribute to bringing to the studies of corporate governance, that to an extent, a responsible management must include an ecological dimension. Sustainable development is indispensable as a way of securing the future of new generations.

Sustainability be it economic, institutional (of organizations), social, ecological or even environmental, disseminates the change of habits and must assume its role of the reinvention of practices for the use of natural resources, from responsible attitudes and from the practices of corporate governance. All going to verify the importance of conjugating the perspective of sustainability, together with technology and innovation.

In this way, this article has come to show how the environmental theme has left the basic axis of economic growth for the new ideas found to exist on the axis of sustainability, to be combined with the typical standards of innovation of the 21st century. There is then the need for the

<sup>60</sup> LENZI, Cristiano Luís. A Sociologia Sob o Signo Ecológico: Um Estudo Sobre Modernização Ecológica, Desenvolvimento Sustentável e a Teoria da Sociedade de Risco. Available on line at: <www.educadores.diaadia.pr.gov.br/arquivos/File/2010/artigos.../lenzi\_cristianoluis.pdf>. Last checked on: 10 April 2018.

question of sustainability in its environmental, economic and social dimensions as a transversal theme, not belonging to any specific discipline, but crossing across all of them as if they were all pertinent.

This work addresses the relationship between corporate governance and sustainability and as the questions involving ecological modernization and environmental policy become more permeated to the management of companies. Evaluating these perspectives together, opens the doors to the emergence of a new vision of the future to start rethinking about the relationship of the environmental question in the corporate business environment.

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