Corporate Social Responsibility Approach at Energy Issue: From Linear to Circular Economic Model

Immacolata Viola¹, Gian Paolo Cesaretti¹ and Debora Scarpato²

¹ Fondazione Simone Cesaretti, Via Rubinacci 23, Cercola, Campania, Italy

² Università degli Studi di Napoli "Parthenope", Via Amm. F. Acton, 38, Napoli, Italy

Abstract

Energy Security, Energy Safety and Energy Resilience constitute the three components of Energy Issue to which various stakeholders of Territorial Systems must give adequate answers through new decision-making models. In this paper the proposal of a corporate circular economic model is put forward as a corporate strategy based on three lines of action, strictly interconnected: improvement of demand for energy resources; choice of products and processes aimed at minimizing negative externalities deriving from possible use of fossil energy sources; implementation of Energy Resilience strategies. This model also contributes to overcoming dilemma between competitiveness and Society's needs.

Keywords

Corporate Social Responsibility, Energy Issue, Circular Economic approach at Energy Issue, Food sustainability.

1. Unsustainability of Current Global Development Model

Today, the pursuit of development objectives, in a context of variable geometry globalization and geopolitical competition, rather than through complete multilateralism, pushes towards the implementation of "dumping strategies" in production and consumption models.

To this is added, very often, the inadequacy of Knowledge System (research-training) in offering "innovative transferable" solutions to territorial systems and, to the no-profit Institutions, to set up effective Advocacy strategies in favor of new decision-making models.

The resulting combination constitutes the origin of unsustainability of current global development model (environmental, economic, social level) denounced in 2015 by United Nations (see Figure 1).

EMAIL: immacolata.viola@gmail.com (A. 1); gp.cesaretti@gmail.com (A. 2); dscarpato.uniparthenope@gmail.com (A. 3) ORCID: 0000-0002-5476-3199 (A. 1); 0000-0002-4988-1449 (A. 2); 0000-0002-0099-2498 (A. 3)



© 2022 Copyright for this paper by its authors. Use permitted under Creative Commons License Attribution 4.0 International (CC BY 4.0).

CEUR Workshop Proceedings (CEUR-WS.org)

Proceedings of HAICTA 2022, September 22-25, 2022, Athens, Greece

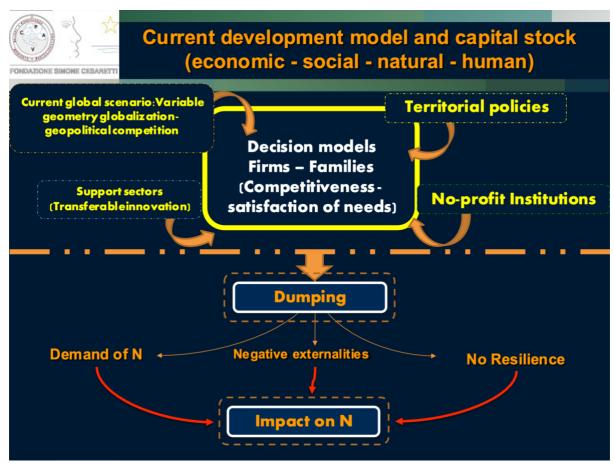


Figure 1: Current development model and capital stock. Source: our elaboration

That is, the Society's inability to pursue an optimal balance between "Material living conditions" and "Quality of Life"; overcome all forms of inequality; knowing how to invest in the future, in the interest of the generations that will follow.

As clearly highlighted in the "How's Life? Measuring Well-being", of the Organization for Economic Cooperation and Development (OECD, 2011), the fundamental condition of Sustainability is represented by the ability to preserve the different types of capital over time and space: economic, human, social and natural. The evolution over time and space of different capital stocks depends, in particular, on the way in which, today, decisions are made capable of influencing the size, availability and quality of these stocks in the future.

Hence the need to set up a new Development Model, where stakeholders are called upon to ensure the availability, quality and access to four capital stocks and, in particular, to energy resources.

In this context, the issue of Corporate Social Responsibility will assume a central role.

2. Energy Issue

With term Energy Question we can indicate the "persistent inadequacy" of the response methods of the current Development model to satisfy the "energy demand".

The current governance of energy demand, in fact, has a transversal impact on all dimensions of sustainability, economic, social, environmental, institutional, thus putting at risk the maintenance of a balanced well-being, between material living conditions and quality of life; equally distributed between social classes and territories; available for future generations. More specifically, the pursuit of the 17 objectives set by the United Nations Global Agenda signed in 2015, Agenda 2030, is jeopardized.

Today, this inadequacy of methods of responding to energy demand is manifested both with respect to Energy Security (current availability, degree of access to energy sources, level of the net positive balance between the reproduction rate and the utilization rate of energy sources: forests and woods); both with respect to Energy Safety (level of negative externalities related to the use of fossil fuels); and with respect to Energy Resilience (compensation actions, energy saving, energy efficiency, investments in renewables).

In summary, firms must guarantee energy sustainability, that is, the ability of energy resources to sustain over time a given state of well-being balanced between material living conditions and quality of life; equally distributed between social classes and territories; avalable for future generations.

3. Corporate Social Responsibility Approach at Energy Issue

European Commission has defined corporate social responsibility, CSR, as "the voluntary integration of the social and ecological concerns of firms in their economic operations and in their relations with interested parties" (Comm. 2001 - 366).

A strategic approach to issue of corporate social responsibility is therefore fundamental for overcoming dilemma between competitiveness and Society's needs.

In other words, the competitiveness of firms cannot be pursued through dumping strategies capable of jeopardizing the availability, quality and access to four stocks of capital and therefore the Well-being Sustainability in subsequent production cycles.

With respect to Energy Issue, this means that firms must review their production and marketing strategies in order to offer an adequate response to the energy demand in terms of Energy Security, Energy Safety and Energy Resilience (see Figure 2).

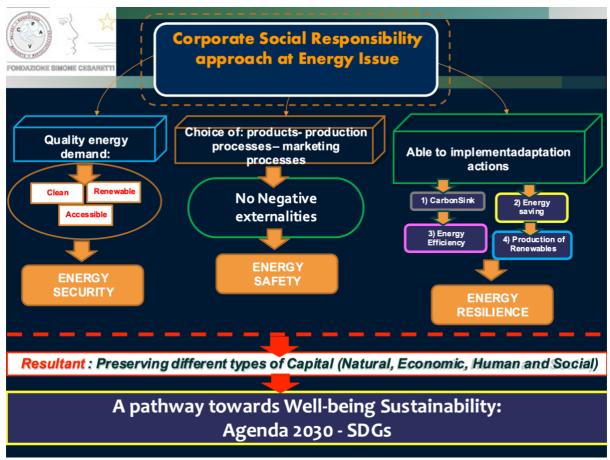


Figure 2: Corporate Social Responsibility approach at Energy Issue. Source: our elaboration

To this end, the organizational model of businesses must be changed, passing from a linear economic model to a circular economic model.

4. From Linear to Circular Economic Model

The model proposed by Pierce and Turner, known as the "Circular Economic System", highlights how firms and households, are the fundamental stakeholders on whose decisions sustainability conditions of the Economic Systems depend. Conditions deriving from the choices made in terms of capital stock; relating to products and production and marketing processes; and related to resilience strategies. But, above all, the model highlights the circularity, or rather, the close interconnection that exists between the various decisions of firms to ensure the sustainability of the economic system.

In other words, it involves implementing three strategic business lines aimed at: modifying the demand for energy resources (Energy safety strategy); the choice of products, production processes and marketing strategies aimed at minimizing the negative externalities generated by a possible use of fossil energy (Energy security and energy safety); the level of implementation of resilience actions (compensation of any negative externalities, renewable energy; energy saving; energy efficiency).

Figure 3 presents a reinterpretation of Pearce-Turner model applied to the management of energy resources by firms. It highlights the fundamental role that firms must play simultaneously with respect to the three conditions of the Energy Issue and the circularity of this responsible approach.

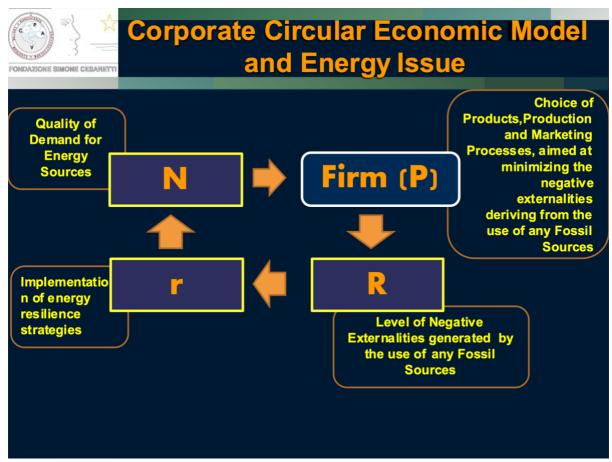


Figure 3: Corporate Circular Economic Model and Energy Issue. Source: our elaboration

In other words, a corporate social responsibility approach at energy issue is based on the recognition that the more the firms are able to interconnect the three conditions of energy issue, the better it will be able to improve its competitive positioning and to satisfy well-being needs of society.

5. Food System and Energy Issue

Currently, agri-food firms pursue their fundamental objective of competitive positioning, very often regardless of awareness that they too, like all other stakeholders of an economic system, must contribute to the goal of implementing a sustainable development strategy.

In fact, the search for their competitiveness, in the face of a "variable geometry globalization" has very often been resolved by focusing on economic, social and environmental dumping strategies, rather than on decision-making models aimed at offering products and services capable of responding, in a responsible way (socially and environmentally), increasingly to the well-being needs of Society.

The lack, on the demand side, for countless reasons, of a System Approach to Quality (understood in its broadest sense) has led to the search for the satisfaction of needs through economically accessible products and services, but a source of negative externalities of nature, social and environmental.

A corporate social responsibility approach at energy issue serves to allow companies the overcoming dilemma between competitiveness and Society's needs.

Today consumers, in fact, are very sensitive and attentive to everything that revolves around the theme of sustainability.

It is therefore essential for firms to consider factors that affect purchasing decisions.

In particular, they must invest in the compatibility between satisfying the Society's demands on the subject of "Energy and Sustainable Development" and the ability to know how to compete in a globalized system, avoiding dumping strategies.

The change of economic paradigm, from linear to circular system, is now in the opinion of many scholars, as the best form of social innovation, capable of overcoming this dilemma.

The transition of agri-food firms to a circular economic system allows for an improvement in the competitiveness index (ie the relationship between "value perceived by families and the market price paid"); contribute to environmental sustainability, protecting the three functions of the environment; contribute to social sustainability, with positive impacts on health, income and employment.

6. References

- Aman M.M., Solangi K.H., Hossain M.S., Badarudin A., Jasmon G.B., Mokhlis H., Bakar A.H.A., Kazi S.N, (2015), A review of Safety, Health and Environmental (SHE) issues of solar energy system, Renewable and Sustainable Energy Reviews, Volume 41, Pages 1190-1204, ISSN 1364-0321, <u>https://doi.org/10.1016/j.rser.2014.08.086</u>.
- [2] Ang B.W., Choong W.L., (2015), Energy security: Definitions, dimensions and indexes, Renewable and Sustainable Energy Reviews, Volume 42, Pages 1077-1093, ISSN 1364-0321, <u>https://doi.org/10.1016/j.rser.2014.10.064</u>.
- [3] Cesaretti G.P., Borrelli I.P., Viola I. (2021), "Circular economic analysis for Sustainability", in "Rivista di studi sulla Sostenibilità" 1/2021, pp. 201-221, DOI:10.3280/RISS2021-001012.
- [4] Cesaretti G.P., Covino D., Borrelli I.P., Viola I., (2020) "Sustainability, Territories and Circular Economy", in "Rivista di studi sulla Sostenibilità" 1/2020, p.p. 11-28.
- [5] Cesaretti, G. P., & Misso, R. (2018). Environmental issue and food issue in agenda 2030: circular economy, an efficient, efficacy, ethic and fair strategy. Journal of Environmental Protection and Ecology, 2, 31-42.
- [6] Covino D., Boccia F., Viola I., (2021), "Genetically modified and socially responsible foods: a significant relationship for consumer's preferences", in "Rivista di studi sulla Sostenibilità" 2/2021, pp. 371-383, DOI:10.3280/RISS2021-002024.
- [7] Gökgöz F., Güvercin M.T., (2018), Energy security and renewable energy efficiency in EU", Renewable and Sustainable Energy Reviews, Volume 96, Pages 226-239, ISSN 1364-0321, https://doi.org/10.1016/j.rser.2018.07.046.
- [8] Kruyt B., van Vuuren D.P., de Vries H.J.M., Groenenberg H., (2009), Indicators for energy security, Energy Policy, Volume 37, Issue 6, Pages 2166-2181, ISSN 0301-4215, https://doi.org/10.1016/j.enpol.2009.02.006.
- [9] Marinelli N., Cesaretti G.P., Viola I., (2021), "Transition towards Well-being Sustainability: approach to Circular Economic Model", in "Rivista di studi sulla Sostenibilità" 2/2021, pp. 263-282, DOI:10.3280/RISS2021-002019.
- [10] OECD (2011). How's Life? Measuring well-being, OECD Publishing.
- [11] Oksana Dobrovolskaya, Nadiya Stovolos, Andrey Lipatov, Uliana Borisova, Oleg Volodin, (2021) "Sustainable corporate development and management models", in "Rivista Di Studi Sulla Sostenibilità" 2/2021, pp. 333-349, DOI:10.3280/RISS2021-002022.
- [12] Pearce D. and Turner R.K. (1991) Economia delle risorse e dell'ambiente. Bologna: il Mulino.
- [13] Roege Paul E., Collier Zachary A., Mancillas James, McDonagh John A., Linkov Igor, (2014), Metrics for energy resilience, Energy Policy, Volume 72, Pages 249-256, ISSN 0301-4215,