A COMPARATIVE ANALYSIS OF SUSTAINABILITY PROMOTED BY THE CONCEPTS: CIRCULAR ECONOMY, SOCIAL ECONOMY, GREEN ECONOMY

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Abstract:

*This article proposes a comparative analysis of the three concepts: circular economy, social economy, green economy. Starting from the fact that they have as common objective the harmonization of economic, social and environmental objectives, the analysis I propose is made in order to capture the differences and similarities of diversity in and between such concepts***.**

Also, the article makes a critical comparison of the potential and limits of the three concepts. Based on what is analyzed, a hierarchy is made, which can serve to better implement the policies.

Keywords: *sustainability, environmental and growth, economic, social and environmental objectives*

JEL classification: *O44, Q01, Q56*

Introduction

The circular economy, the social economy and the green economy are three concepts that have grown on the scale over the last decade. Although the three concepts have different assumptions and operationalization strategies, they have in common sustainability with its goals of reconciling the environment with the economy and social objectives.

Although the main ways of sustainability of the three concepts are known, there is currently a lack of comparative analysis and ranking.

Description of the Problem

The conceptual delimitations are based on a review of the literature, structured so as to highlight the relationships between the circular economy, the social economy and the green economy, as elements that underpin this study. a conceptual analysis to identify the predominant narratives and sustainability issues in each concept.

On the one hand, studies that highlight sustainability and the predominant aspects of the three concepts: the relationship between the circular economy, the social economy and the green economy, concepts that have different assumptions and operationalization strategies, and the relationships that are established between them.

On the other hand, a comprehensive analysis of the diversity of and the concepts of circular economy, social economy and green economy.

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Methodology and Data

In conducting this study, a mixed methodological approach will be used, both on the basis of the literature and on the basis of international statistical data (Eurostat, EEA).

Also, the literature will be explored to identify the main trends in the field, and theoretical, descriptive and comparative analysis will be used.

The conceptual delimitations are based on a review of the specialized literature, structured so as to highlight the relations between the circular economy, the social economy and the green economy, as elements that substantiate this study.

Results

The results obtained from the conceptual analysis led to the identification of sustainability aspects predominant in each of the concepts of circular economy, social economy and green economy. Thus, the significance of sustainability

Starting from the sustainability characteristics identified by Franceschini and Pansera (2015), which describe the economic dimension of sustainability, represented by increase or decrease, we identified the main aspects included in the social and environmental dimensions of sustainability (Table 1).

Table 1

Sustainability	Circular Economy	Social Economy	Green Economy
	Sustainability is given by the efficient conversion of natural capital into man-made capital Natural and man-made capitals cannot be considered interchangeable. Negative environmental impacts can be partially avoided by increasing environmental efficiency in pursuit of economic growth Economic growth and environmental sustainability can be reconciled and have positive feedback from each other. This process is fueled by nature solutions, i.e., ecological adaptation and resilience; The aim is to raise awareness of ecological limits and the limits of growth, as well as to find solutions based on nature, ecological adaptation and resilience.	Social education and training, inter- and intragenerational social justice. Health, quality of life and well-being, social inclusion, social capital, community network, safety, employment and income. Security and equality, social order and cohesion, cultural traditions	Water, carbon and nutrient cycles, including emissions and waste; greening cities and logistics; Increasing the quality of energy sources and efficiency in production and use; maintenance of biodiversity, ecosystems and related services.

Source: data processed by the author

The European Environment Agency (2015) considers that the green economy includes the circular economy which aims to reuse materials and reduce to waste disposal to increase social welfare and ecosystem sustainability.

The EC conceptualization was based on several papers (Dempsey et al., 2011; Moldan et al., 2012, Franceschini and Pansera (2015)) and led to the following observations:

1) Reduction, reuse and recycling are notions associated only in the context of recycling as part of the circular economy;

2) The transition to the circular economy is made through a change of system;

3) The impact on social equity is not given importance but only economic development and the quality of the environment are taken into account

Starting from the three objectives pursued in the circular economy: waste design and pollution reduction, the use of materials for as long as possible and the regeneration of ecosystems, we can explain its influence on the quality of life.

The European Environment Agency has interpreted the EC as the core of a green economy perspective that extends the focus from the use of waste and materials to human well-being and the resilience of ecosystems (see Figure 1)

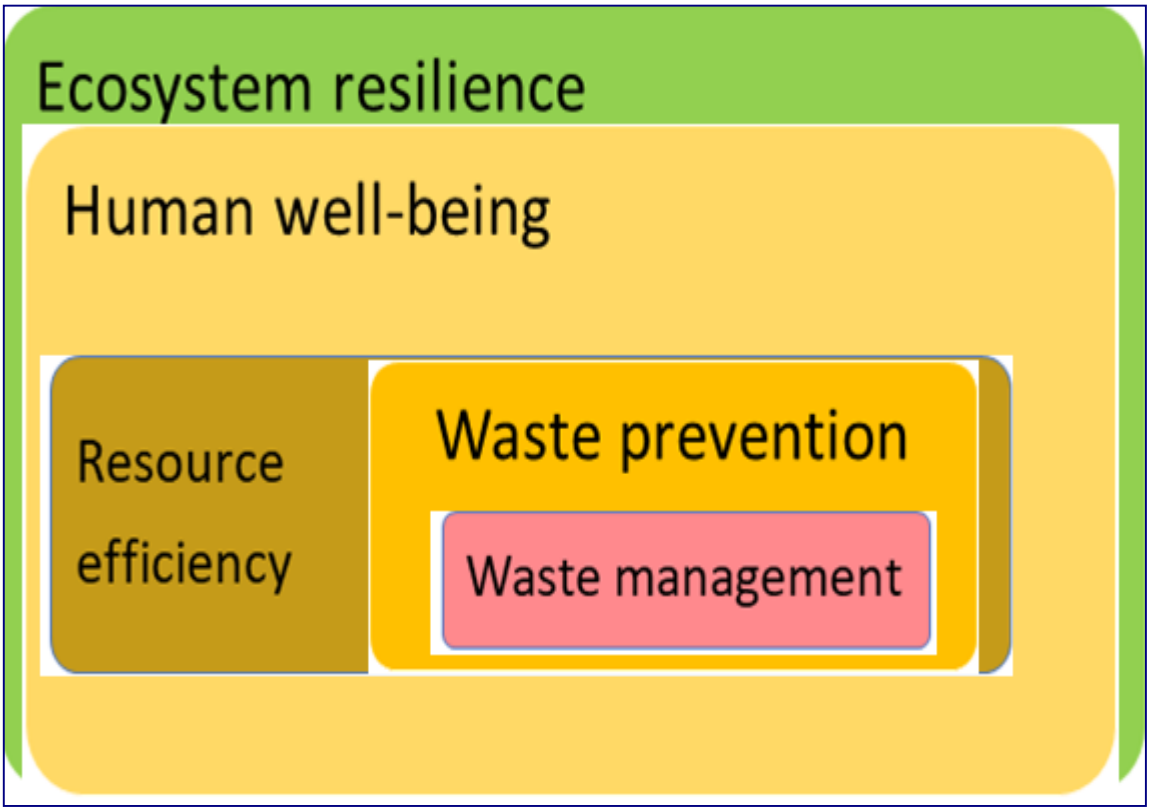

Figure 1: European Environment Agency view on circular economy

Source: data processed by the author

Sustainability transitions, conceived as "fundamental transformation processes through which established socio-technical systems move to more sustainable modes of production and consumption" (Markard et al., 2012).

Such transformation processes, which support the sustainability of the transition in the three areas: economic, social and environmental, can reap from potential benefits in each of the categories of the value creation framework (Table 2).

Table 2

From potential benefits in each of the categories of the value creation framework

Categories	Economic	Environment	Social
1.Welfare	Increased GDP, both by sector and per capita; higher average incomes and lower unemployment • Improved trading / competitiveness conditions • Security of energy, food and other resources • Increasing economic stability • Reduced risk of major economic damage	• Increased conservation of natural environments • Reduced pollution / contamination • Reduced waste stored • Increasing biodiversity • Reduced risk of major damage to the environment (such as climate Change)	Poverty reduction • Improved access / accessibility to basic services (energy, water, sewerage, etc.) • Reducing income inequality • Improved safety and health • Equitable access to resources and opportunities (for vulnerable groups) • Civil and / or political participation • Reduced vulnerability to ecological risk
2.Wealth	Increase in physical capital stocks • Reduction of blocked assets • Resistance of assets to natural hazards • Increased resistance to exogenous shocks (price) • Improving net savings • Improving foreign exchange reserves	• Soil / soil stocks (eg agriculture, coastal areas) • Water (slow or no replenishment) • Atmospheric assets (ozone layer, low GHG atmosphere) • Fish stocks • Stocks of natural raw materials (eg forest timber) • Other natural resources	• Improved levels of education and literacy • Improved health levels • Conserved cultural heritage • Robust and stable government and institutions
3.Environmental goods and services	• Land use efficiency (or yields), including large and small scale production • Water efficiency (eg reduced shrinkage, advanced irrigation) • Energy efficiency (eg buildings, industry, transport, etc.) • Energy supply efficiency (eg installation efficiency, engine efficiency, etc.) • Labor productivity, especially for low-income labor or vulnerable populations • Efficiency in the use of mineral and other natural resources (eg iron and steel, clinker, timber, fertilizers, etc.) • Efficient use of food (eg reduced food waste) • Space efficiency (eg to reduce travel, etc.)		
4.Socio-economic context	Engineering, science, and technology capacity, especially in clean/green related areas • Increased financial sector lending, especially to sectors with high capital needs	• Investment in RD&D, especially in technology areas with large potential co-benefits and spill-overs • Access to risk capital for entrepreneurs, especially those with triple bottom-line businesses • Increased employment, especially among vulnerable populations	• Legal frameworks for intellectual property rights • Technical standards for technologies with large network effects

Source: data processed by the author

Conclusions

The implementation of EC principles supports efforts to develop a sustainable, low-carbon, resource-efficient and competitive economy.

The concepts of circular economy, green economy and social economy have in common the reconciliation of economic, environmental and social objectives.

By conducting a comparative analysis of these three concepts, they can be integrated into the policy-making process as solutions to achieve economic, social and environmental sustainability.

Future Directions

The transition to a circular economy is a systemic change. The implementation of EC principles supports efforts to develop a sustainable, low-carbon, resource-efficient and competitive economy. These can be achieved by increasing the quality of the environment, economic development, social equity.

Innovation will also play a key role in this systemic change, which seeks ways to produce and consume and to turn waste into high value-added products.

Bibliography

Allen, B., 2016. A Step Further. Orizon 2020 Project: Portal, pp. 196-199.

Barbier, E.B., 1987. The concept of sustainable economic development. Environ.

Conserv. 14, pp. 101-110.

Bezama, A., 2016. Let us discuss how cascading can help implement the circular

economy and the bio-economy strategies. Waste Manag. Res. 34, pp. 593-594.

Birch, K., Levidow, K., Papaioannou, T., 2010. Sustainable Capital? The neoliberalization of nature and knowledge in the European “Knowledge-based bioeconomy.” Sustainability 2, pp.2898-2918.

Borel-Saladin, J.M., Turok, I.N., 2013. The green economy: incremental change or transformation? Environ. Policy Gov. 23, pp. 209-220.

D'Amato, D., Droste, N., Chan, S., Hofer, A., 2016. Green economy: pragmatism or Revolution? Perceptions of Young researchers on social ecological transformation. J. Environ. 26, pp. 413-435.

Dempsey, N., Bramley, G., Power, S., Brown, C., 2011. The social dimension of sustainable development: defining urban social sustainability. Sustain. Dev. 19, pp. 289-300.

EAA, 2013. Towards a Green Economy in Europe - EU Environmental Policy Targets and Objectives 2010-2050.

Eaton, D., 2013. Technology and innovation for a green economy. Rev. Eur. Comp. Int. Environ. Law 22, pp. 62-67.

EC, 2012. Innovating for Sustainable Growth. A Bioeconomy for Europe.

EC, 2015. Closing the Loop - an EU Action Plan for the Circular Economy. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. COM/2015/0614.

Kitchen, L., Marsden, T., 2011. Constructing sustainable communities: a theoretical exploration of the bio-economy and eco-economy paradigms. Local Environ. 16, pp. 753-769

Kettunen, M., Ten Brink, P., 2015. Towards a Framework for Assessing Current Level of and Future Opportunities for ES/NC Integration at Different Levels of Governance.

Knutas, A., Hajikhani, A., Salminen, J., Ikonen, J., Porras, J., 2015. Cloud-based bibliometric analysis service for systematic mapping studies. In: ACM International Conference Proceeding Series, pp. 184-191.

Korhonen, J., Seager, T.P., 2008. Beyond eco-efficiency: a resilience perspective. Bus. Strat. Environ. 17, pp.411-419.

Loiseau, E., Saikku, L., Antikainen, R., Droste, N., Hansjürgens, Pitk€anen, K., Leskinen, P., Kuikman, P., Thomsen, M., 2016. Green economy and related concepts. J. Clean. Prod. 139, pp. 361- 371.

Lorek, S., Fuchs, D., 2013. Strong sustainable consumption governance – precondition for a degrowth path? J. Clean. Prod. 38, pp. 36-43.

Markard, J., Raven, R., Truffer, B., 2012. Sustainability transitions: an emerging field of research and its prospects. Res. Pol. 41, pp. 955-967

Marchetti, M., Vizzarri, M., Lasserre, B., Sallustio, L., Tavone, A., 2014. Natural capital and bioeconomy: challenges and opportunities for forestry. ASR 38, pp.62-73

Martins, N.O., 2016. Ecosystems, strong sustainability and the classical circular economy. Ecol. Econ. 129, pp.32-39.

Munda, G., 1997. Environmental economics, ecological economics, and the concept of sustainable development. Environ. Values 6, pp. 213-233.

Murray, A., Skene, K., Haynes, K., 2015. The circular economy: an interdisciplinary exploration of the concept and application in a global context. J. Bus. Ethics.

Rogge, K.S., Reichardt, K., 2013. Policy mixes for sustainability transitions: an extended concept and framework for analysis. Res. Pol. 45 (8), pp. 1620- 1635

Ten Brink, P., Mazza, L.B.T., Kettunen, M., Withana, S., 2012. Nature and its Role in the Transition to a Green Economy.

UNEP, 2011. Towards a Green Economy: pathways to Sustainable Development and Poverty Eradication.