

Circular Economy: a strategic solution for post pandemic the global recession

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Today, global population faces a health crisis caused by COVID19 and the economic recession which threat with a decrease of 5.2% of Global GDP and 6.2% Per capita GDP (World Bank, 2020). This crisis have proved the need to understand the key components of the Circular Economy as an opportunity to rebuild our future: 1) It allows the closure of cycles of materials and energy, 2) it is multidimensional, so its implementation is at the micro-level (individual business and consumers efforts), meso-level (industrial polygons, associations, clusters) and macro-level (regions, eco-cities, countries), 3) it requires innovation in processes, products, brands, business models, models organizations and 4) CE is a way to contribute to sustainable development. Multiple governments, businesses and consumers have seen in the Circular Economy a model that would allow a closed system of infinite use of materials and energy, which facilitates economic and social prosperity, and avoids the exploitation of raw materials. This is not to say that it is the only way, but it has proven to be widely accepted the last decade, since 2009, when China launched the Circular Economy Act, then, the European Union Action Plan in in 2014 (renewed in 2020), and emerging countries aims to join the circular transition such as Colombia with a “Green Growth Policy” and South Africa with its White Paper in Science and Technology (Department of Science and Technology, 2019). Even Pope Francis through the "Laudato Si" has been clear about the responsibility we have for the care of the environment and the adoption of the role of administrators of the planet, rather than owners (Francis, 2015)

The world requires a significant change, and nature proves that humans are the leading cause of damage. The Pandemic lockdown stop for a while the linear economy, which consists of exploiting, transforming, using and discarding resources, thus, significant benefits have been evident in nature. It has been less human activities, and it can be seen in the reduction of air pollution figures, such as CO₂ and NO₂, cleaning and freshening up the air, providing pollution-free water in some countries (Prideaux et al., 2020). The Sentinel-5P satellite shows that nitrogen dioxide¹ (NO₂) Pollution caused by the combustion of fossil fuels has declined since the pandemic started. Human isolation has allowed the displacement and reproduction of species in their natural environment. In Brazil, about 100 endangered hawksbill turtles (*Eretmochelys imbricata*) managed to hatch on Janga Beach in Pernambuco, one of the busiest cities the country has, taking advantage of the absence of visitors.

Today, is Circular Economy a strategic solution for the global recession? According to the World Bank (2020), Latin America and the Caribbean will be the most affected region in 2020, with a decrease of -7.2% in the GDP, while the number of unemployed people would rise to 37.7 million (ECLAC, 2020). The Green Deal in Europe and the Circular Economy can be implemented as a sustainable strategy for countries' recovery. Martinez et al. (2019) report an increasing trend of government efforts to hurry up this transition in Latin America; however, the public sector should design financial and fiscal incentives to support circular start-ups. A shift of paradigm towards the circular business models design would create new indirect circular Jobs as couriers and teachers and direct Jobs like Trade association managers to facilitated symbiotic relationships and core jobs based on technical skills like solar panel installer, appliance technician, recycling operative, among others (EHORE and Circle Economy, 2017).

¹ https://www.esa.int/Applications/Observing_the_Earth/Copernicus/Sentinel-5P

It is also vitally important to understand that consumers' isolation has given them time to reflect on their needs. Research by Carvalho et al (2015) and Jaca et al. (2018) in Ibero-America shows that some of the "green" consumer motivations arise in times of economic crisis. Moreover, green consumers are becoming interested in healthy living, leading them to buy durable, second-hand, organic, or eco-labeled products. Even some authors consider that pandemic may encourage people to develop "community gardens" and "Rooftop agriculture" for commercial or noncommercial food supply (Lai et al., 2020). In this sense, sustainable brands will have to take advantage of green marketing to highlight their green attributes and perform against conventional products. A clear example would be the tourism industry; they have to be aware that usual tourism practices affect the environment and specific ecosystems. Considering that, there is an urge to adopt some new processes to fit the economic transformation change and combat climate change (Prideaux et al., 2020).

Thinking about a green consumer market that can reach 30% of the population (Ginsberg and Bloom, 2004) and the needs we have as a society, entrepreneurs must be prepared to transform their businesses within the framework of the Circular Economy. Vermunt et al. (2019) propose four circular business models (MNC) in terms of the 4R framework (reduce, reuse, recycle and recover) proposed in the EU Waste Framework Directive (European Commission, 2008; Kirchherr et al., 2017), as well as: 1) product as a service model, 2) product life extension, 3) resource recovery and 4) circular materials.

The "product as a service" model focuses on leasing or payment models for an asset's performance, as the company Ca2Go does with the rental of electric vehicles in Europe, for instance. Secondly, the "life extension" model refers to the repair, update or remanufacture of a product, as it has been achieved by the company Recupera Tu Silla. They remanufacture office furniture, hospitals, and educational institutions with savings of up to 70% for its clients and have also donated hundreds of desks to low-income schools. In third place, the business model for the recovery of discarded materials, where Enka is located, has managed to become a national and Latin American leader in recovering different plastics types for use in new product mattresses and textiles packaging packing. Another example is Reciclarg in Argentina, this company recover valuable materials from e-waste and produce its own bijouterie brand named Chloé. Ultimately, the business models supplied with "circular materials," from their design perspective, are thought to return to biological and technical cycles of use as Biogar has achieved with natural and environmentally friendly cleaning products, as well as EcoCarga with an self-service refill system. Circular materials are mainly threatened by the lack of knowledge of their performance, the technology with which they work, the supply chain, and the final consumer's lack of knowledge. Vermunt et al. (2019) also indicate that these models can be combined to form hybrids in organizations.

This is how the circular economy is presented as a viable strategy to promote social and environmental prosperity, from the development of the private sector and the support of governments and institutions. Furthermore, there will not be a second chance to transform our society and our economy, to live in harmony with nature in our Common Home.

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