Regenerative Strategies

In the current climate emergency, it is no longer enough for businesses to simply employ environmental strategy typologies focused on 'greening the business' and maintaining the 'business-as-usual' logic. Gregorio Martín-de Castro and Javier Amores-Salvadó argue that disruptive business models and solutions are now required, and they propose a new regenerative strategy linking climate science to management studies. The main features of this strategy are cutting-edge climate science solutions (capturing and utilising atmospheric carbon dioxide to produce net zero or net negative emissions and positive environmental externalities) and a redefined firm purpose under an ecological, ethical and moral paradigm (integrating eco-emotional wealth, environmental performance, systemic socioecological resilience, wider stakeholder management and a very long-term perspective). They demonstrate that, by applying this strategy, companies can not only reduce their negative environmental externalities and create positive environmental externalities, but also reverse current environmental degradation through a new sustainable capitalism.

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Regenerative Strategies

Exploring New Sustainable Business Models to Face the Climate Emergency

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Foreword: Reversing Course

In June 2023, the average global surface temperatures were 1.05°C above the twentieth-century average, making it the warmest June ever in the Earth's recorded history. The temperature kept going up in July 2023, breaking previous records. Canadian forest wildfires began to burn in May 2023 – earlier than ever before, more widespread than ever and more severe than ever due to excessive heat. The resulting smoke from these wildfires blanketed the United States and reached European skies and continued to do so for all of summer. The summer of 2023 saw the second consecutive month of record low sea ice in Antarctica; global accumulated cyclone energy that was twice the past annual average; water temperatures off Miami reaching 6°C above the average, stressing corals and sea life; cactus plants under stress and beginning to die due to over three weeks of consecutive temperatures in the US Southwest over 43°C; and the heat index reaching 67°C in the Middle East, beyond the human body's ability to cool (US NOAA, 2023). The world is literally burning and, as the authors of this book rightly point out, this is not climate change but a climate emergency.

The time for mitigation and reduction is long past and there is an urgent need to reverse the accumulated CO_2 and other greenhouse gases in the atmosphere to enable the survival of the Earth's species including humans and the ecosystems that support the species. At this critical time, this book on regenerative environmental strategies is a welcome addition to the growing discussions about a shift in thinking towards net positive (Polman & Winston, 2021) if the planet has to have any hope of achieving the goal of keeping temperature increases to below 1.5°C, as agreed by most countries at the 2015 Paris climate conference (COP, 2015).

This book reviews the extant environmental strategy literature and argues that businesses need to focus on regeneration as the strategy that goes beyond mitigation and reduction of environmental damage. Regeneration involves reversing the outflow of greenhouse gas

emissions by capturing them from the atmosphere and either sequestering them or using them as feedstock for industrial use. The authors elaborate a case study of direct air capture by the Canadian company Carbon Engineering as an example of regenerative strategy.

As discussed in the opening paragraph of this foreword, the challenge we face is so daunting that we not only need to identify many more such examples and case studies if we are to inspire businesses from different sectors and countries around the globe, but also examine and elaborate on other pathways to tackle the climate emergency. Direct air capture is a costly technology that may take decades to be widely adopted in a viable manner. This technology can at best reduce only a small proportion of the approximately 35 billion tons of CO_2 that humans pump into the atmosphere every year. While this is a promising technology, given our climate emergency, it will only make a miniscule dent in the short term, given the magnitude of the problem. We need many more technologies, business models, processes, products and services that *do not* generate CO_2 and other greenhouse gases in operations. Regeneration is a pollution control strategy of cleaning up after the pollution is created rather than a pollution prevention strategy that redesigns the industrial enterprise to eliminate the generation of emissions (Russo & Fouts, 1997).

In Chapter 7, the authors outline a set of guidelines for companies seeking to develop regeneration strategies. These range from redefining the purpose of the business to wider (and fringe – Hart & Sharma, 2004) stakeholder engagement for knowledge generation. At the same time, the authors state that these firms should be prepared for returns in a *very* long time frame. However, it is not clear how businesses can change expectations of returns to the *very* long term without any guidance. Business operates in capital markets that provide the engine of commerce in terms of funds from investors and shareholders. Even funds from angel investors and patient investors will not be forthcoming unless they generate a reasonable return within a reasonable period of time. Family enterprises are an exception and many have transgenerational survival and performance expectations (Sharma & Sharma, 2011, 2019, 2021).

Hence, there is a major role for governments and institutions to create the conditions that motivate and facilitate the deployment of patient capital (Sharma & Sharma, 2019) that can allow for returns over a very long-term time frame. The current US government's

Inflation Reduction Act (US Congress IRA, 2022) has created incentives and subsidies for investments in technologies that address climate change. However, the climate problem is global and the actions are local and politically motivated. Positive actions by one country to reduce emissions are compensated negatively by actions of another country that subsidise the use of fossil fuels and the building of coal-fired power plants. At the same time, the developing economies face a choice of the most effective allocation of their limited resources: do they use these resources immediately to fight diseases and infections that kill millions of their citizens and reduce malnutrition, or invest them in renewable energy and deforestation that will generate returns in the long and very long term? Both are necessary and hence there is a major role for the rich world to enable the poorer developing countries to tackle climate change. Since the problem is global and affects our commons, it is in the self-interest of the developed countries to help the developing world, as climate change is mainly the result of two centuries of industrialisation by the developed world. Many such agreements have been reached in global forums, but there is little or no action and insufficient technology, aid and funds transfer from the developed to the developing world.

Drawing on the family enterprise literature's concept of socio-emotional wealth, the authors present the concept of eco-emotional wealth as a possible driving motivation for businesses to adopt regeneration strategies and accept patient, very long-term returns. However, the concept of socio-emotional wealth has at its roots the need for family harmony that is as important as financial returns for family enterprises focused on transgenerational success. Without harmony, conflict jeopardises succession and the survival of family enterprises. Eco-emotional wealth does not have the same level of urgency and it is difficult to permeate throughout larger organisations – especially those with multiple operations in multiple countries and contexts. Hence, genuine progress to avoid climate disaster would require coordinated action not only between countries at a global level, but also between governments, communities and businesses at a national and local level. The world has been coming together to discuss climate change and sustainable development every few years and recently every year ever since the 1972 United Nations Conference on the Human Environment in Stockholm. At the same time, at the local level communities pull together and help each other after climate-induced

floods and hurricanes. In spite of all these efforts, after more than fifty years of global meetings and conclaves, the climate problem has grown and accelerated and reached the tipping point of an emergency. This book is a welcome addition to the discussion about an alternate pathway to achieve net positive emissions. Building on this discussion, the world needs an explosion of technologies and business models that will eliminate emissions rather than just cleaning and/or capturing emissions after they are generated.

Sanjay Sharma

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