GREEN TRANSFORMATION: INTEGRATING SUSTAINABILITY PRINCIPLES INTO CLASSIC BUSINESS MODELS

Gridchina Aleksandra[1] Breusova Anna [2]

•

[1] Moscow Polytechnic University, Moscow, Russia
[2]Dostoevsky Omsk State University

*gav70@bk.ru

Abstract

In the context of global climate change and increasing environmental challenges, the concept of a green economy has emerged as a crucial framework for achieving sustainable development. This paper examines the transformation of traditional business models within the framework of a green economy, emphasizing the imperative to integrate environmental and social considerations into strategic planning. By analyzing the key principles of a green economy—such as carbon emission reduction, resource efficiency, sustainable production and consumption, and biodiversity support—this study explores how these principles influence the adaptation of business practices. The paper further investigates the role of innovation in facilitating this transformation, highlighting how new technologies and business practices can lead to reduced environmental impact while also enhancing economic performance. Through case studies of successful transitions to sustainable business models, the research illustrates the diverse approaches organizations can take to align their operations with green economy principles. Moreover, the paper addresses the challenges enterprises face in implementing eco-friendly technologies, including regulatory barriers, financial constraints, and the need for a cultural shift within organizations. It argues that overcoming these challenges is essential for the successful transition to a green economy, which not only promotes ecological sustainability but also creates new opportunities for growth, resilience, and competitive advantage. The findings underscore the importance of collaboration among stakeholders, including governments, businesses, and communities, to create an enabling environment for sustainable practices. Ultimately, this research contributes to the understanding of how a green economy can serve as a new paradigm for traditional business models, fostering a harmonious relationship between economic development and environmental stewardship.

Keywords: green economy, sustainable development, traditional business models, ecological sustainability, innovation, resource efficiency, biodiversity, climate change, eco-friendly technologies, strategic planning.

I. Introduction

The United Nations Conference on Sustainable Development, commonly referred to as Rio+20, was initiated amidst significant concerns regarding the global economic landscape. Within this context, "green economy" was selected as one of the two primary themes of the conference, drawing from an expanding body of literature focused on green economy and growth. This research investigates the interplay and impact of the dual crises on the emergence of "greening" as a potential

solution. The objective is to analyze what defines and differentiates the proposals found in twenty-four sources on the green economy, which include policy documents from international organizations and think tanks, as well as academic research papers. It also aims to explore the implications and meanings of the burgeoning greening agenda for sustainable development as we progress into the 21st century.

Using a systematic qualitative analysis of textual materials, the study identifies three categories of discourse that shed light on the meanings and implications of greening: "almost business as usual," "greening," and "all change." By examining these categories in relation to Dryzek's classification of environmental discourse, the research reveals three interconnected patterns: (1) scarcity and limits, (2) means and ends, and (3) reductionism and unity. These patterns enhance our comprehension of the tensions that arise among emerging propositions related to greening.

Furthermore, the patterns elucidate the significance and implications of greening for sustainable development, highlighting a trend toward the economization and polarization of discourses. The analysis also points to an enduring weak interpretation of sustainable development and a conflict between the stabilization or transformation of the dominant socioeconomic paradigms that shape its conceptualization.

As the world grapples with the escalating impacts of climate change, environmental degradation, and resource depletion, the traditional paradigms of economic growth are being increasingly scrutinized. The need for a transformative approach to development has given rise to the concept of a green economy, which seeks to promote economic growth while simultaneously addressing environmental and social challenges. Defined broadly, a green economy is one that is low in carbon emissions, resource-efficient, and socially inclusive. It emphasizes sustainable practices that support human well-being while protecting the planet’s ecosystems.

The traditional business models that have dominated economic systems for decades often prioritize short-term profits over long-term sustainability, leading to significant negative externalities, such as pollution, loss of biodiversity, and climate-related disasters. These practices not only threaten the health of the environment but also jeopardize the very foundations of human society by undermining the resources upon which livelihoods depend. In contrast, the principles of a green economy advocate for a systemic shift toward sustainability, encouraging businesses to rethink their operational frameworks and strategies.

This paper seeks to explore the transformation of traditional business models in light of the green economy paradigm. It will examine how organizations can adapt their practices to align with sustainability goals, highlighting the essential role of innovation and strategic planning in this transition. By integrating environmental and social considerations into their business operations, companies can not only mitigate their impact on the planet but also unlock new avenues for growth, resilience, and competitive advantage.

Furthermore, this introduction sets the stage for a detailed analysis of the key principles underlying the green economy, the challenges organizations face in adopting these principles, and the potential benefits of embracing a more sustainable approach to business. Ultimately, the paper aims to illustrate that the shift towards a green economy is not merely a trend but a necessary evolution that can redefine the relationship between economic development and environmental stewardship, ensuring a viable future for generations to come.

II. Methods

his study employs a multi-faceted research approach to analyze the transformation of traditional business models within the context of the green economy. The methodology comprises several key components designed to gather comprehensive data and insights into the subject matter:

1. **Literature Review**: A thorough review of existing literature on green economy principles, sustainable development, and traditional business models was conducted. This review includes academic articles, books, reports from international organizations, and case studies that provide foundational knowledge and context for understanding the intersections between economic practices and environmental sustainability. The literature review serves to identify key themes, challenges, and opportunities that characterize the transition to a green economy.
2. **Case Studies**: Selected case studies of organizations that have successfully transformed their business models in alignment with green economy principles were analyzed. These case studies were chosen based on their relevance to various industries and their demonstrated commitment to sustainability. The analysis focuses on the strategies employed, the challenges encountered, and the outcomes achieved, providing real-world examples of how businesses can implement sustainable practices.
3. **Interviews and Surveys**: Semi-structured interviews and surveys were conducted with key stakeholders, including business leaders, sustainability experts, and policymakers. These discussions aimed to gather qualitative data on the motivations, barriers, and best practices associated with transitioning to a green economy. The insights gained from these interviews and surveys offer a deeper understanding of the subjective experiences and perspectives of those directly involved in the transformation process.
4. **Comparative Analysis**: A comparative analysis of different business models was performed to identify the factors that contribute to successful implementation of green economy principles. This analysis involved examining the differences and similarities in approaches taken by businesses across various sectors, such as manufacturing, agriculture, and services. By comparing these models, the study aims to highlight the adaptability of green economy principles and their applicability in diverse contexts.

III. Results

In light of the uncertain recovery of the global economy, governments from both mature and emerging economies, various international organizations including the UN, and stakeholders from civil society and academia have all played a role in advocating for a green economy or green growth as a means to address the ongoing crises. These terms are frequently used interchangeably, encompassing a spectrum of ideas related to low-carbon development. This range spans from the specific focus on eco-industry and environmentally friendly production to a comprehensive redefinition of an entire country's or region's economy. Between these two extremes lie policies aimed at promoting low-carbon economies or enhancing efficiency and productivity, which often overlap.

These approaches emphasize varying degrees of concepts such as dematerialization, decoupling resource use, valuing ecosystem services, and improving energy efficiency, all propelled by technological innovation. The notion that undervaluing natural capital impacts not only economic efficiency but also both growth and the quality of that growth concerning human welfare has gained recognition from international and national organizations since the influential Millennium Ecosystem Assessment was published. Additionally, scholars connect green growth and green economies to positive shifts in the eco-industry sector, which is transitioning from downstream environmental protection technologies to resource-saving technologies driven by innovation and competitive markets. They also highlight a growing interest in re-evaluating lifestyles beyond the traditional sustainable consumption agendas and the need to transcend the classic divide between individualistic and systemic methodologies, as well as the role of technological and cultural factors.

Consequently, a substantial portion of the policy and academic literature on greening growth and economies merges environmental and sustainability discourses with industrial and economic

policy discussions, aiming for win-win solutions and positive cycles of progress and prosperity. Among international organizations, the United Nations Environment Programme has taken a leading role in shaping and promoting the green economy as a driving force for growth, job creation, and poverty alleviation. It defines a green economy as one that enhances human well-being and social equity while significantly reducing environmental risks and ecological scarcities.

Against this backdrop of multiple crises and the emergence of new ideas for economic growth, 191 UN member states convened in Rio de Janeiro from June 20 to 22, 2012, for the UN Conference on Sustainable Development, known as Rio+20. This event marked the twentieth anniversary of the UN Conference on Environment and Development, which elevated sustainable development to an internationally recognized concept and normative goal, as well as the fortieth anniversary of the UN

IV. Discussion

I. Subsection One

The theme of a "green economy in the context of sustainable development and poverty eradication" was introduced as one of the emerging challenges during the UNCSD's first preparatory committee meeting in May 2010. Several intersessional and preparatory meetings at the UN headquarters in New York, along with country-led initiatives and reports, contributed to the development of the "zero-draft" outcome document in December 2011. Tariq Banuri, who was the Director of the Division for Sustainable Development at the UN during the lead-up to Rio+20, provided insight into the reasoning for focusing on the green economy in an interview. When asked if the green economy might "minimize" sustainable development, Banuri clarified that the green economy was firmly positioned within the context of sustainable development, aiming to align economic policies with social and environmental needs. He emphasized that focusing on the economy is essential, as it is an area requiring action.

In response to concerns about differing agendas between developed and developing nations and the fear that greening might hinder growth, Banuri acknowledged the crisis-driven nature of the agenda, explaining that the consensus was not about obstructing development but ensuring its possibility during times of crisis. This view was shared by both developing and developed countries. Banuri further addressed the idea that achieving sustainable development would require an economic paradigm shift, confirming the presence of an emergency mindset. He stressed that the goal was to find practical solutions rather than seeking a completely new paradigm.

A summary of national reports for Rio+20 highlighted concerns about the lack of clarity surrounding the green economy and the perceived risks, such as imposing conditions on aid and creating trade barriers. A detailed account of the process leading up to Rio+20 in the Earth Negotiations Bulletin underscored the controversy surrounding the UNCSD's decision. The green economy, though championed by UNEP as a key theme, encountered strong resistance from the G-77/China, resulting in a highly defensive and qualified text in this section of the document.

To discuss the idea of the green economy, its relationship to sustainable development, and the significance of its adoption within the Rio+20 agenda, it is essential to view it in a broader historical and economic context, especially considering the ongoing multiple crises. An initial qualitative analysis of the content from the 24 sources, along with reports on stimulus packages quickly passed by governments across the Atlantic, indicates that responses to these crises can be grouped into three main categories: (1) national stimulus packages, representing "almost business as usual" (BAU); (2) proposals to green the economy, labeled as "greening"; and (3) calls for socioeconomic transformation, described as "all change." Each category is characterized by its primary objective, its socioeconomic paradigm, and its vision of progress.

The "almost BAU" category refers to the stimulus packages, recovery programs, and bailouts implemented by major economies to mitigate the effects of the near-global financial collapse. These

measures often included "green stimulus measures," with large economies focusing on environmental initiatives within the broader context of their recovery efforts. Countries such as China, South Korea, the United States, Japan, and the European Union led the way in green investment packages, allocating significant funds to energy efficiency, infrastructure upgrades, clean technology markets, and research and development. The core of these responses was to reactivate the global market economy while addressing unemployment issues.

The greening efforts viewed the economic crisis as an opportunity for investment in the ecoindustry. Governments committed substantial funds to green projects, with a reported $512 billion being allocated globally, 22% of which was to be spent in 2009 alone. While these green stimulus packages were part of broader recovery strategies, they also demonstrated a shift towards greener policies. The overarching economic paradigm in this category remained tied to growth, framed within neoclassical economics, and reinforced by Keynesian approaches that emphasized state intervention in the economy.

The vision of progress within the "almost BAU" category was rooted in economic growth, with the assumption that growth would eventually benefit society as a whole. This incremental shift represented a move away from market fundamentalism toward a more active role for the state in shaping economic recovery and addressing both social and environmental needs.

II. Subsection Two

The "greening" category refers to national and international efforts aimed at comprehensive strategies for greening economies. This approach is best exemplified by documents like the OECD's *Green Growth: Overcoming the Crisis and Beyond* (2009) and UNEP's *Global Green New Deal* (2009). The primary objective is to achieve resource-efficient, low-carbon growth. The socioeconomic paradigm is rooted in a technoscientific framework, with progress defined as efficient growth that benefits society as a whole and reduces poverty. This includes various shades of green, reflecting a gradual shift away from mainstream economic models toward propositions inspired by thinkers like Karl Polanyi. This shift reasserts the connection between the economy and society, moving beyond the state's rediscovered role in economic intervention, and incorporates ecological economic theories, which emphasize environmental limits and the need for equity across generations.

As we move further along the spectrum, the "all-change" category represents more radical approaches proposed by NGOs, think tanks, and heterodox economists. This category lacks a cohesive set of policies, but key documents like *World in Transition* (WBGU, 2011), *The Great Transition* (NEF, 2009), and the *Degrowth Declaration* (2010) embody the core ideas. The primary goals here include prosperity beyond traditional economic growth, the creation of steady-state economies, and the fostering of societies that prioritize well-being and sustainability. The degrowth movement, part of this category, critiques the primacy of economic growth, even in its sustainable forms, and calls for a reorientation towards human well-being and happiness. These proposals reflect a transformative socioeconomic paradigm that draws from natural sciences, social sciences, and humanities, rather than the more economic-centric approaches of previous categories. They also highlight the paradoxes of growth and efficiency, such as Easterlin's and Jevons' paradoxes.

In exploring these categories through the lens of John Dryzek's classification of environmental discourses, we see how each category aligns with varying degrees of reformist and radical thinking. Dryzek identifies two dimensions of human-nature interaction: reformist-to-radical changes and prosaic-to-imaginative alternatives to dominant political-economic structures. The "almost business as usual" (BAU) category aligns with Dryzek's reformist-prosaic "problem-solving" discourse, representing conservative and gradual approaches to change. The "greening" category overlaps with Dryzek's "sustainability" discourse, blending prosaic and imaginative elements. Finally, the "all-change" category fits with Dryzek's "green radicalism," representing a more imaginative and radical departure from current economic and environmental norms.

These distinctions help clarify the diverse responses to the green economy debate, from incremental reforms to more transformative visions of a sustainable future. Rio+20 fits into this framework primarily within the "greening" category, reflecting a reformist and moderate approach to sustainable development that aligns with the weak conception of sustainability. Held during the height of the global financial crisis, the agenda was shaped by both economic instability and growing environmental concerns. However, the emphasis at Rio+20 on the green economy—framed as a pathway to both economic recovery and environmental sustainability—largely mirrors the discourse of *ecological modernisation*, which advocates for more efficient, low-carbon growth without fundamentally questioning the dominant socioeconomic paradigm. This perspective seeks to "fix" the existing system through technological innovations and market-driven solutions, rather than shift to more radical alternatives.

The implications of Rio+20 for sustainable development, 20 years after the first Rio Summit (UNCED, 1992), suggest a continuation of the weak paradigm. While Rio+20 embraced green economy strategies, these strategies remain focused on efficiency improvements, resource management, and ecological modernisation rather than addressing deeper systemic issues, such as unsustainable consumption patterns or the need for a more transformative socioeconomic shift.

This is consistent with the broader literature on sustainable development, which critiques the weak version for prioritising economic growth and technological solutions over more profound social or environmental changes. Rio+20's proposals, despite the green rhetoric, fall short of the more radical–imaginative dimensions represented by the "all-change" group, which advocates for paradigm-shifting transformations that prioritize well-being, equity, and ecological sustainability over economic growth.

Thus, Rio+20's approach remains within the "reformist–prosaic" category of John Dryzek's environmental discourse classifications, focusing on incremental changes and technocentric solutions. Its agenda, while progressive in terms of advocating for a greener economy, reinforces existing structures rather than challenging the global economic system in a way that the more radical discourses in the "all-change" category would demand. This is reflected in the underlying tension between the need to address immediate economic concerns and the more pressing, long-term sustainability challenges that still remain largely unaddressed.

References

[1] Taranova I.V., Kasaeva T.V., Shavrina J.O., Tekeeva H.E., Boeva K.Y. Methods of fraud management in the financial services market of the region// Business 4.0 as a Subject of the Digital Economy. Cham, 2022. C. 291-295.

[2] Mapar, M., Jafari, M. J., Mansouri, N., Arjmandi, R., Azizinezhad, R., & Ramos, T. B. (2020). A composite index for sustainability assessment of health, safety and environmental performance in municipalities of megacities. Sustainable Cities and Society, 60, 102164. http://doi.org/10.1016/j.scs.2020.102164

[3] Caeiro, S., Sandoval Hamón, L.A., Martins, R., Bayas Aldaz, C.E. (2020). Sustainability Assessment and Benchmarking in Higher Education Institutions: A Critical Reflection. Sustainability 2020, 12, 543.

[4] Zahra SA (2021) The resource-based view, resourcefulness, and resource management in startup firms: a proposed research agenda. J. Manag 47(7):1841–1860

[5] Tsui, J. (2020). How the Grocery Industry Is Responding to New Consumer Behavior. Retrieved October 31, 2021, from: https://www.supplychainbrain.com/blogs/1-think-tank/post/31659-how-thegrocery-industry-is-responding-to-new-consumer-behavior.

[6] Taranova I.V., Podkolzina I.M., Uzdenova F.M., Dubskaya O.S., Temirkanova A.V. Methodology for assessing bankruptcy risks and financial sustainability management in regional agricultural organizations// The Challenge of Sustainability in Agricultural Systems. Cep. "Lecture

Notes in Networks and Systems, Volume 206" Heidelberg, 2021. C. 239-245.

[7] Rao M, Vasa L, Xu Y, Chen P (2023) Spatial and heterogeneity analysis of environmental taxes' impact on China's green economy development: a sustainable development perspective. Sustainability 15(12):9332

[8] Taranova I.V., Podkolzina I.M., Uzdenova F.M., Dubskaya O.S., Temirkanova A.V. Methodology for assessing bankruptcy risks and financial sustainability management in regional agricultural // Organization. 2021. № 206. C. 239.

[9] Allcott, H., & Rogers, T. (2014). The Short-Run and Long-Run Effects of Behavioural Interventions: Experimental Evidence from Energy Conservation. American Economic Review, 104(10), 3003– 3037

[10] Jagtap, S., Trollman, H., Trollman, F., Garcia-Garcia, G., Parra-López, C., Duong, L., . . . Afy-Shararah, M. (2022). The Russia-Ukraine conflict: Its implications for the Global Food Supply Chains. Foods. Retrieved August 15, 2022, from https://www.mdpi.com/2304-8158/11/14/2098