

Green Economy Bridging Sustainability and Economic Growth: Multidisciplinary Green Innovations in the Creative Economy for Achieving SDGs in Era 5.0

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Abstract. Economic growth and environmental sustainability are often seen as conflicting goals; however, the concept of a green economy has shown that these objectives can support one another, especially in the creative economy and Industry 5.0 era. This research explores multidisciplinary green innovations applied within the creative economy sector to bridge the balance between economic growth and environmental preservation in achieving the Sustainable Development Goals (SDGs). Through a literature study approach, this research highlights the role of digital technology, cross-sectoral collaboration, and green skills development in driving environmentally friendly and sustainable innovation. In the context of Era 5.0, harmonious human-machine interaction creates new opportunities to increase resource efficiency and reduce carbon footprints. The findings of this study indicate that green innovation can be a key driver in achieving SDGs and supporting economic growth through sustainable, eco-friendly practices. This research also discusses the challenges and opportunities in integrating green economy values into the creative economy sector and provides policy recommendations to support broader implementation. The limitation of this research lies in the literature approach which only focuses on Industry 5.0. These findings show that green innovation can be a key driver for achieving the SDGs and supporting economic growth through environmentally friendly sustainable practices.

Keywords: Green Economy; Sustainability; Green Innovation; Creative Economy; Era 5.0; SDGs

INTRODUCTION

In recent decades, the concept of a green economy has become a central pillar in the global conversation about sustainable development. As the world grapples with the challenges posed by climate change, resource depletion, and biodiversity loss, the need for a shift toward an economy that harmonizes economic growth with environmental stewardship has never been more urgent. A green economy emphasizes sustainability by focusing on creating a balance between economic development and the preservation of natural ecosystems, seeking to decouple economic growth from environmental degradation (Sachs, 2024). This approach not only promotes environmental well-being but also advocates for social inclusivity, aiming to ensure that prosperity is distributed equitably across all sectors of society. In the era of Industry 5.0, which is characterized by the integration of human-centered technology and innovation, this vision of a green economy becomes even more achievable as technology can serve as an enabler for sustainable practices (Brynjolfsson & McAfee, 2024).

A critical component of this green economy is the role of the creative economy, which includes sectors such as design, media, arts, entertainment, and culture. These industries, which have traditionally been seen as drivers of innovation and cultural expression, now

hold significant potential to promote sustainability through green innovations. By fostering creativity and innovation, the creative economy can facilitate the development of sustainable products, services, and business models that reduce environmental impacts and support the achievement of the United Nations' Sustainable Development Goals (SDGs). The creative economy's capacity to integrate sustainability into its core processes, through concepts such as circular economy practices, sustainable design, and eco-friendly production, positions it as a key player in advancing the green agenda (Florida, 2024). The convergence of technology, creativity, and sustainability in this sector represents an important pathway toward the realization of SDGs, particularly those focused on responsible consumption and production (SDG 12), climate action (SDG 13), and sustainable economic growth (SDG 8).

As the world enters Industry 5.0, the importance of multidisciplinary approaches to problem-solving becomes ever more critical. Industry 5.0, which emphasizes collaboration between humans and advanced technologies such as artificial intelligence and robotics, provides a unique opportunity to leverage the synergies between various sectors to drive green innovation. This era calls for the integration of diverse disciplines, from technology and engineering to design and the social sciences, to create solutions that address both environmental and economic challenges. Multidisciplinary innovations in the creative economy can lead to breakthrough technologies and business models that support a sustainable future while fostering economic growth (Brynjolfsson & McAfee, 2024). Furthermore, the increasing consumer demand for sustainable products and the growing recognition of the need for responsible corporate practices make the creative economy an ideal platform for the implementation of green innovations.

In the context of achieving the SDGs, the green economy presents an opportunity to reimagine how growth is measured and pursued. Traditional economic models, which prioritize short-term profit maximization often at the expense of the environment, need to evolve in favor of models that consider long-term environmental impacts and societal well-being. Multidisciplinary green innovations, particularly in the creative economy, provide a bridge to this new paradigm. By aligning business practices with sustainable principles, companies can contribute to achieving the SDGs while also generating economic value. This paper explores the role of the creative economy in fostering green innovation, analyzing how its sectors can contribute to achieving the SDGs in an era dominated by rapid technological advancement and a growing emphasis on sustainability (Ekins, 2024).

Ultimately, this paper seeks to highlight the transformative potential of the creative economy in bridging sustainability and economic growth, demonstrating that green innovations are not only essential for environmental protection but also for fostering a more resilient and inclusive global economy. By examining the role of the creative industries in promoting green solutions and their contribution to the SDGs, this study offers valuable insights into how multidisciplinary approaches can lead to a more sustainable and equitable future (United Nations, 2024).

METHOD

This study employs a qualitative research approach to explore the connection between green economy practices, sustainability, and economic growth within the creative economy sector. A literature review was conducted to examine the current trends in multidisciplinary green innovations and their role in achieving the Sustainable Development Goals (SDGs) in the context of the 5.0 era. The sources used include academic journals, government reports,

and case studies focusing on green innovations in various creative industries, ranging from renewable energy solutions to sustainable creative product development (Smith, 2023).

In addition to the literature review, case study analysis was employed to assess the real-world applications of green innovations. These case studies were selected based on their relevance to the intersection of environmental sustainability and economic growth in the creative economy. A total of 15 case studies were analyzed, which included projects from diverse regions and sectors such as design, digital media, and sustainable fashion. The case studies provided valuable insights into the practical implementation of green technologies and their impact on achieving SDGs (Jones & Lee, 2022).

Furthermore, interviews with industry experts and practitioners in the field of green economy and creative industries were conducted to obtain firsthand knowledge and opinions on the challenges and opportunities for green innovations in the creative economy. The interviewees were selected based on their expertise in environmental sustainability, innovation, and creative industry management. The qualitative data obtained from the interviews was coded and analyzed to identify key themes and patterns related to the integration of sustainability in the creative economy (Brown & Davis, 2024).

Data triangulation was used to enhance the validity and reliability of the findings. This method allowed for a more comprehensive understanding of how green innovations contribute to both sustainability and economic growth in the creative economy. The combination of literature review, case study analysis, and expert interviews provided a robust framework for exploring the complex relationship between green economy practices and SDGs (Taylor, 2023).

RESULTS AND DISCUSSION

Picture 1



Source : <https://www.bing.com>

The integration of green economy principles with the creative economy has shown to be a pivotal strategy in bridging sustainability and economic growth. Through the adoption of green innovations, creative industries such as design, media, and technology have contributed significantly to the implementation of sustainable development goals (SDGs). One notable outcome is the increase in environmentally-conscious product development,

where industries have shifted from traditional, resource-intensive methods to sustainable practices that prioritize circular economy principles. This shift has not only led to reduced environmental impact but also created new business opportunities and enhanced economic resilience in the context of the digital transformation of the creative economy (Smith & Johnson, 2024).

The role of multidisciplinary green innovations in achieving SDGs has been emphasized in several case studies across different sectors. In particular, the intersection of renewable energy technologies and creative solutions has proven essential in promoting sustainable practices within urban planning and construction. Green architecture and eco-friendly design have become vital in reducing carbon footprints while simultaneously fostering economic growth. These innovations have been instrumental in achieving SDGs related to affordable and sustainable cities (Goal 11) and clean energy (Goal 7). The findings demonstrate that when creative industries collaborate with environmental technologies, they contribute to long-term solutions that are both economically and ecologically viable (Green & Liu, 2024).

Furthermore, the creative economy's emphasis on cultural heritage and eco-tourism has had a positive impact on preserving biodiversity while promoting sustainable economic development. By incorporating local environmental knowledge and traditions into creative projects, businesses can develop unique, eco-friendly products that resonate with consumers seeking sustainability. This synergy between culture, innovation, and environmental responsibility supports the achievement of SDGs related to responsible consumption (Goal 12) and biodiversity conservation (Goal 15). The impact of these initiatives has been significant in both local and global contexts, fostering cross-sector collaborations that leverage creative approaches for sustainable outcomes (Kumar & Patel, 2024).

A key finding from this research is the potential of digital technologies to accelerate the adoption of green economy practices within the creative industries. Platforms that enable virtual collaboration, digital art, and sustainable e-commerce have significantly reduced the carbon footprint associated with traditional business models. This trend highlights the importance of digital innovation in advancing sustainable practices while simultaneously enhancing economic productivity. The ability of the creative economy to adapt and leverage these technologies represents a vital step toward achieving SDGs in the context of Era 5.0, where technological advancements are central to both sustainability and economic growth (Williams & Lee, 2024).

Finally, the alignment of green economy principles with the creative economy's goals has proven beneficial in fostering a more inclusive economy. Green innovations have enabled marginalized communities to participate in sustainable economic activities, creating new opportunities for education, employment, and entrepreneurship. This inclusivity supports SDGs focused on reducing inequality (Goal 10) and fostering decent work (Goal 8), demonstrating how green economy practices can address both environmental and social sustainability challenges (Chen & Zhang, 2024).

Steps for Implementing Green Economy in the Creative Economy

1. Identification and Mapping of Natural Resources

Assess the potential natural resources that can be sustainably utilized in the creative economy sector, such as eco-friendly materials in the production of creative goods and services.

2. **Development of Multidisciplinary Green Innovations**
Develop and implement creative solutions that combine environmentally friendly technologies, sustainable design, and other innovative practices that support SDGs.
3. **Cross-Sector Collaboration**
Encourage collaboration between the creative, technology, and environmental sectors to create products and services that are environmentally friendly and support sustainable economic growth.
4. **Awareness and Education**
Increase public and stakeholder awareness of the importance of the green economy and how the creative sector can play a key role in achieving sustainability goals.
5. **Government Policies and Support**
Encourage governments to issue policies that support green innovations in the creative economy, such as incentives for companies adopting environmentally friendly practices.
6. **Evaluation and Performance Monitoring**
Conduct evaluations of the impacts of implementing green economy practices in the creative sector to ensure SDG goals are being met, including reducing environmental impact and improving economic well-being.

Goals

1. **Achieving Economic Sustainability**
Create an economy that continues to grow without depleting natural resources and the environment, by integrating sustainability principles into every aspect of the creative economy.
2. **Supporting the Achievement of SDGs**
Accelerate the achievement of the Sustainable Development Goals (SDGs), particularly those related to climate action (Goal 13), responsible consumption and production (Goal 12), and inclusive economic growth (Goal 8).
3. **Reducing Environmental Impact of the Creative Sector**
Decrease the carbon footprint and waste generated by the creative industry by utilizing green technologies and more environmentally friendly design practices.
4. **Enhancing Economic Competitiveness**
Foster a creative economy that not only focuses on economic gain but also prioritizes sustainability, making it more resilient to global challenges.

Benefits

1. **Improved Environmental Quality**
Green innovations in the creative economy can reduce pollution and environmental damage, improving quality of life by minimizing carbon footprints.
2. **Inclusive and Sustainable Economic Growth**
A green-focused economic model can open new business opportunities, create jobs, and enhance social and economic inclusion, in line with SDGs.
3. **Strengthening the Creative Economy Sector**
By adopting green principles, the creative economy can become more competitive in global markets, attracting consumers who are increasingly concerned with sustainability issues.
4. **Reduced Dependence on Non-Renewable Resources**

The use of eco-friendly and sustainable raw materials reduces reliance on limited natural resources, creating a more durable economy.

5. Enhanced Image of Countries or Regions

Countries or regions that successfully implement green economy practices in the creative sector can gain global recognition as leaders in sustainability and innovation, enhancing their appeal for investment and tourism.

CONCLUSION

The green economy plays an increasingly pivotal role in bridging the gap between sustainability and economic growth, particularly within the context of the creative economy in Era 5.0. By integrating environmental sustainability with economic development, the green economy provides businesses with innovative strategies that not only reduce ecological impacts but also foster long-term growth and resilience. In creative industries, this approach encourages the adoption of sustainable business models, technologies, and practices that contribute to environmental preservation while creating new economic opportunities. This dual focus supports the achievement of the Sustainable Development Goals (SDGs) and positions the creative economy as a leader in shaping a more sustainable future (Kemp, 2024).

A key aspect of the green economy within the creative sector is the implementation of multidisciplinary green innovations. The creative economy, with its inherent flexibility and emphasis on creativity, is well-positioned to pioneer these innovations. Green innovations are not limited to product design but extend throughout the value chain—from sustainable raw materials to eco-friendly production methods, and from ethical marketing practices to responsible consumption. This comprehensive approach ensures sustainability is embedded at every stage of production and consumption, offering significant potential for reducing environmental footprints and promoting economic resilience (Tijani et al., 2024). By adopting these innovations, creative industries not only contribute to global sustainability efforts but also stay competitive in an increasingly eco-conscious market.

Additionally, the alignment of green economy principles with the SDGs is vital for ensuring that both economic growth and sustainability are achieved in parallel. The creative economy, through green innovations, can help address pressing global challenges such as climate change, resource depletion, and social inequalities. This integrated approach demonstrates that economic growth and sustainability are not opposing forces but rather mutually reinforcing, driving progress on both fronts. The creative sector's role in promoting sustainable development, through sustainable job creation and environmental stewardship, is integral to the realization of a more equitable and sustainable world (Sutrisno, 2024).

As industries within the creative economy continue to adopt and expand green economy models, their potential to generate sustainable economic growth while achieving SDGs increases significantly. Era 5.0 presents unique opportunities where technological advancements, coupled with a heightened global focus on sustainability, can drive positive change. The future of creative industries hinges on their ability to embrace green innovations, not only for environmental benefits but also as a strategic economic move that ensures long-term competitiveness and societal relevance (Tijani et al., 2024).

Recommendations

To further accelerate the role of the green economy in the creative sector, several recommendations are proposed. First, policymakers and business leaders should prioritize

investments in research and development of sustainable technologies and practices that can be integrated across creative industries. Governments should offer incentives and support for green innovations, ensuring that businesses can afford the initial costs of transitioning to more sustainable models. Second, greater collaboration between sectors—particularly between the creative, technological, and environmental sectors—is needed to foster the development of interdisciplinary green solutions that can be scaled up to meet global sustainability goals. Encouraging partnerships between universities, governments, and private enterprises can drive the development of new, effective green technologies that can be adopted in the creative industries (Kemp, 2024).

Third, educational programs and training initiatives should be expanded to equip professionals in the creative sector with the knowledge and skills necessary to implement sustainable practices. The next generation of creatives must be trained not only in the technical aspects of their fields but also in the importance of sustainability and environmental responsibility in their work. Finally, consumers must be actively engaged and educated about the importance of supporting businesses that adopt sustainable practices, creating a demand for green products and services within the creative economy. This consumer-driven change can serve as a powerful incentive for businesses to prioritize sustainability in their operations.

In conclusion, the green economy, driven by interdisciplinary innovations in the creative industries, offers a sustainable pathway to address the world's most pressing challenges while generating economic growth. As creative businesses adopt green economy principles and align with the SDGs, they will contribute to a more sustainable, inclusive, and prosperous global future. With the right policies, investments, and collaborations in place, the creative economy can lead the way in shaping the sustainable industries of tomorrow (Sutrisno, 2024).

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