

Circular Economy and Social Entrepreneurship: Creating Value from Waste

G V Radhakrishnan<sup>1</sup>, Avinash Ashok Jawade<sup>2</sup>, Dr. Shailesh Singh Thakur<sup>3</sup>, Dr. Rupam Mukherjee<sup>4</sup>, Dr. Waheeda Sunny Thomas<sup>5</sup>

<sup>1</sup>Senior Professor, Department of Economics & Finance, School of Management, KIIT Deemed to be University, Bhubaneswar, Odisha, India

<sup>2</sup>Assistant Professor, Department of Economics & Finance, School of Management, KIIT Deemed to be University, Bhubaneswar, Odisha, India

<sup>3</sup>Associate Professor, IPS Academy, Institute of Business Management and Research Indore M.P.

<sup>4</sup>Assistant Professor & Department-in-Charge, Department of Economics, Kabi Sukanta Mahavidyalaya, Bhadreswar, Hooghly, West Bengal, India

<sup>5</sup>Professor & Dean, Department of General Management, SOM UG, Universal AI University, Karjat, Raigad, Maharashtra, India

**Cite this paper as:** G V Radhakrishnan, Avinash Ashok Jawade, Dr. Shailesh Singh Thakur, Dr. Rupam Mukherjee, Dr. Waheeda Sunny Thomas, (2025) Circular Economy and Social Entrepreneurship: Creating Value from Waste. *Advances in Consumer Research*, 2 (3), 715-724.

KEYWORDS

Circular Economy, Social Entrepreneurship, Waste Management, Sustainable Development, Resource Efficiency, Waste-to-Value, Inclusive Innovation, Environmental Sustainability, Social Impact, Green Business Models, Reuse and Recycling, Eco-Innovation, Community Empowerment, Sustainable Enterprises, Circular Business Models

ABSTRACT

The global shift towards sustainable development has catalyzed the convergence of circular economy principles and social entrepreneurship to address environmental degradation and socio-economic disparities. This paper explores how social entrepreneurs leverage circular economy models to create value from waste, contributing simultaneously to environmental conservation and social well-being. The circular economy promotes resource efficiency by designing out waste, keeping products in use, and regenerating natural systems. Social entrepreneurship, with its dual mission of economic sustainability and social impact, plays a crucial role in localizing and humanizing these principles through innovative, community-centered solutions.

This paper synthesizes existing literature on the integration of circular practices within social enterprises across diverse sectors including textiles, agriculture, construction, and electronics. It critically analyzes case studies that demonstrate successful waste-to-value initiatives, highlighting key drivers such as stakeholder engagement, technological innovation, and supportive policy environments. The review also examines barriers to scaling such models, including limited access to capital, regulatory challenges, and cultural resistance to reused products.

Moreover, the paper emphasizes the role of education, collaboration, and digital platforms in fostering inclusive circular ecosystems. It concludes that the intersection of circular economy and social entrepreneurship offers a transformative approach to sustainable development by turning environmental liabilities into economic and social assets. This integrated model not only contributes to achieving the United Nations Sustainable Development Goals but also fosters resilience in vulnerable communities by promoting resource stewardship and inclusive economic participation. Future research should focus on metrics for impact assessment and policy frameworks that encourage hybrid business models capable of generating long-term systemic change.

1. INTRODUCTION

The mounting pressure of environmental degradation, resource scarcity, and unsustainable consumption patterns has



triggered a global shift toward innovative economic models that prioritize sustainability. Among these, the circular economy has emerged as a transformative framework that reimagines the lifecycle of products and materials. By promoting principles such as reuse, recycling, and regeneration, the circular economy seeks to minimize waste and maximize resource efficiency, contrasting sharply with the traditional linear “take-make-dispose” model.

## Social Entrepreneurship in the Circular Economy



Source: <https://fastercapital.com/>

Parallel to this shift, social entrepreneurship has gained recognition for its potential to drive systemic change by addressing social and environmental challenges through entrepreneurial strategies. Unlike conventional enterprises, social ventures place social impact at the core of their mission, often operating in underserved or marginalized communities. When these two paradigms—circular economy and social entrepreneurship—converge, they create powerful synergies that not only reduce environmental burdens but also foster inclusive economic development.

This paper explores the intersection of circular economy principles with social entrepreneurial initiatives that transform waste into valuable resources. It examines case studies, business models, and community-driven innovations that demonstrate how waste can be a catalyst for both environmental resilience and social empowerment. The paper also delves into the challenges and enablers of such ventures, including policy frameworks, financial support systems, and collaborative networks.

By critically analyzing existing literature, this study highlights the emerging role of circular social enterprises in promoting sustainable development. It aims to contribute to a better understanding of how entrepreneurial solutions rooted in circularity can create lasting value—not just for the environment, but also for society at large.

### Background of the study

The increasing pressure on natural resources, growing environmental degradation, and rising waste generation have necessitated a shift from the traditional linear economic model of “take, make, dispose” to a more regenerative and sustainable approach. The concept of the **circular economy (CE)** has emerged as a transformative framework that aims to eliminate waste, keep products and materials in use, and regenerate natural systems. By promoting reuse, recycling, and redesign, the circular economy challenges conventional production and consumption patterns and aligns closely with global sustainability goals.

Simultaneously, **social entrepreneurship** has gained recognition as a powerful driver of social innovation and inclusive development. Unlike traditional business ventures focused solely on profit, social enterprises seek to address pressing societal issues such as poverty, unemployment, and environmental degradation through market-based solutions. In recent years, a convergence between circular economy practices and social entrepreneurship models has created promising opportunities to address both ecological and social challenges. Social enterprises are increasingly leveraging circular principles to create value from waste—transforming discarded materials into new products, generating employment for marginalized communities, and fostering local economic development.

This synergy is particularly relevant in developing economies where informal waste management systems are prevalent and social inequality remains high. By combining environmental stewardship with social impact, circular economy-driven social

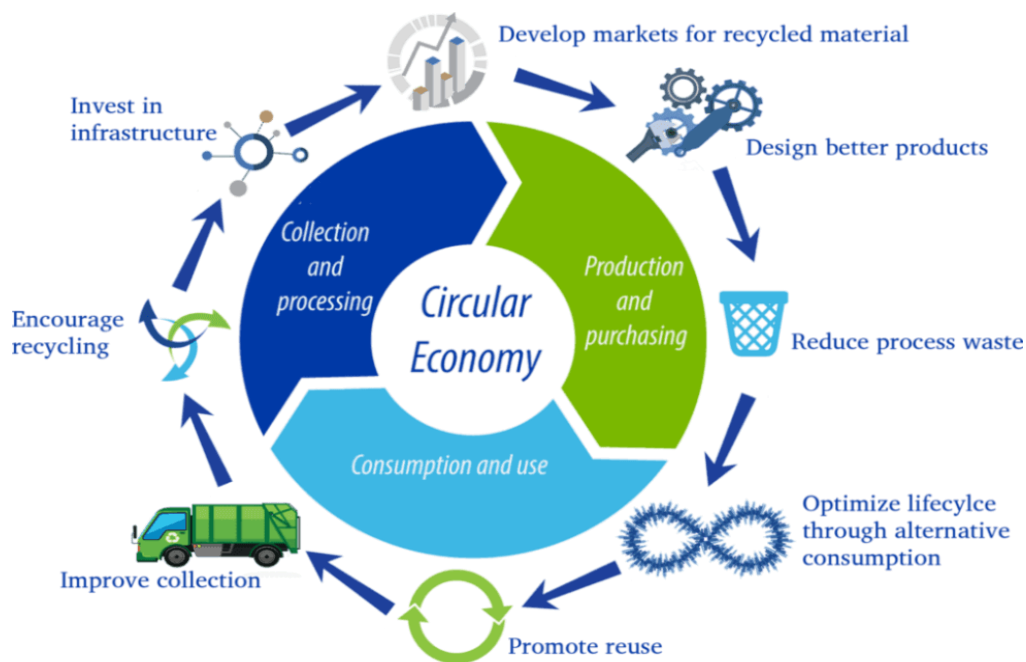


enterprises not only contribute to sustainable development but also offer innovative pathways for poverty alleviation and community empowerment. However, despite the growing interest in this interdisciplinary space, there remains a need for comprehensive academic inquiry into how social entrepreneurs implement circular practices, what challenges they face, and what policy support mechanisms can enhance their impact.

This study seeks to explore the intersection of circular economy and social entrepreneurship, analyzing how value is being created from waste through innovative business models. It aims to synthesize existing research, identify best practices, and highlight future directions for both policy and practice in achieving a more sustainable and inclusive economic future.

### Justification

The global rise in waste generation, coupled with the overexploitation of natural resources, has necessitated a shift toward more sustainable economic models. The **circular economy (CE)** offers a regenerative approach to production and consumption by emphasizing resource efficiency, waste minimization, and the reuse of materials. At the same time, **social entrepreneurship** presents a powerful mechanism for addressing societal and environmental challenges through innovative, impact-driven business models.



Source: <https://internationaljournalofresearch.com/>

Despite growing academic and policy interest in both circular economy and social entrepreneurship, there remains a notable gap in understanding how these two domains intersect to generate social, environmental, and economic value—especially through the transformation of waste into productive assets. This review is justified by the need to consolidate existing knowledge on how social enterprises are implementing circular practices, identify key challenges and success factors, and highlight replicable models that contribute to sustainable development goals (SDGs).

Furthermore, this paper seeks to provide a comprehensive synthesis of scholarly literature, case studies, and practical initiatives that illustrate how value creation from waste can be a viable and scalable strategy. It aims to support policymakers, practitioners, and researchers in developing frameworks and policies that encourage socially driven circular innovations.

By analyzing interdisciplinary perspectives and presenting an integrated view of CE and social entrepreneurship, this study contributes to bridging theoretical insights with real-world applications. It also adds to the evolving discourse on inclusive sustainability, where economic growth is aligned with social equity and environmental stewardship.

### Objectives of the Study

1. To examine the core concepts and theoretical underpinnings of the circular economy and social entrepreneurship, identifying how these frameworks contribute to sustainable development.
2. To investigate how social enterprises are leveraging circular economy models to reduce waste, promote resource efficiency, and generate social impact.
3. To analyze successful case studies and global best practices where waste-to-value initiatives have led to both



economic empowerment and environmental conservation.

4. To assess the challenges and opportunities faced by social entrepreneurs in implementing circular economy strategies across different sectors and regions.
5. To propose strategic recommendations and policy insights that can support and scale circular economy-driven social enterprises, particularly in developing and emerging economies.

## 2. LITERATURE REVIEW

The intersection of **circular economy (CE)** principles and **social entrepreneurship (SE)** presents a promising avenue for addressing environmental degradation and social inequality through innovative, value-driven models. The **circular economy** aims to eliminate waste and promote the continual use of resources, advocating for restorative and regenerative systems in contrast to the traditional linear economy of "take-make-dispose" (Ellen MacArthur Foundation, 2013). This model emphasizes reuse, repair, refurbishment, and recycling, ensuring that materials remain within the economic cycle for as long as possible (Geissdoerfer et al., 2017).

Social entrepreneurship, on the other hand, focuses on developing sustainable business models to solve pressing societal problems, blending profit motives with social and environmental goals (Mair & Marti, 2006). Social enterprises play a vital role in driving CE initiatives by developing innovative solutions that align environmental sustainability with inclusive development (Bocken et al., 2016). By rethinking value creation, social entrepreneurs are increasingly identifying opportunities to transform waste into economic and social capital, particularly in low-resource settings.

Recent research highlights how social entrepreneurs facilitate circular models by engaging marginalized communities in waste management, recycling, and upcycling initiatives (Murray, Skene, & Haynes, 2017). These activities not only reduce environmental impact but also generate employment and promote community empowerment. For instance, waste picker cooperatives and recycling social ventures in countries like India, Brazil, and South Africa have become key actors in circular value chains (Gutberlet, 2015). They provide dignified livelihoods while enhancing urban sustainability through efficient resource recovery.

Moreover, the alignment of CE and SE contributes to the **triple bottom line** approach — achieving economic, environmental, and social outcomes (Elkington, 1999). In the context of the **United Nations Sustainable Development Goals (SDGs)**, especially goals related to responsible consumption and production (SDG 12), decent work (SDG 8), and climate action (SDG 13), this integrated approach offers a viable framework for inclusive and sustainable development (UNDP, 2015).

However, the successful integration of CE principles into social enterprises is not without challenges. These include limited access to finance, technological gaps, regulatory constraints, and a lack of supportive ecosystems for scaling innovations (Kirchherr et al., 2018). Social entrepreneurs often rely on hybrid business models that combine grants, revenue, and partnerships to maintain operations and impact (Smith, Gonin, & Besharov, 2013). Furthermore, measuring the socio-environmental impact of such ventures remains complex, requiring context-specific and participatory evaluation tools (Maas & Liket, 2011).

Scholars have also emphasized the need for multi-stakeholder collaboration involving governments, private sector actors, and civil society to build robust circular social enterprises (Blomsma & Brennan, 2017). Policy support in the form of green public procurement, incentives for waste-based innovation, and legal recognition of informal sector actors can significantly enhance the effectiveness of these initiatives (Preston, Lehne, & Wellesley, 2019).

The convergence of circular economy and social entrepreneurship offers a transformative potential for creating value from waste. By linking environmental regeneration with social inclusion, these models demonstrate that sustainability and social justice can be co-created through innovative economic systems. Further research is required to explore scaling strategies, impact assessment methodologies, and cross-sectoral partnerships to strengthen the role of circular social enterprises in the global sustainability transition.

## 3. MATERIAL AND METHODOLOGY

### Research Design:

This study employs a qualitative **systematic review** design to explore the intersection of circular economy practices and social entrepreneurship, specifically focusing on value creation from waste. The objective is to synthesize existing literature to identify key strategies, models, and outcomes where social enterprises have successfully implemented circular principles in waste management and resource recovery. The review adheres to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to ensure methodological rigor and transparency.

### Data Collection Methods:

The data for this study were gathered from peer-reviewed journal articles, conference proceedings, and grey literature



published between 2013 and 2024. Major academic databases such as **Scopus**, **Web of Science**, **Google Scholar**, **ScienceDirect**, and **SpringerLink** were used to locate relevant sources. Keywords such as “*circular economy*,” “*social entrepreneurship*,” “*waste valorization*,” “*resource recovery*,” “*sustainable innovation*,” and “*waste-to-value*” were used in combination with Boolean operators (AND, OR) to refine the search. The initial pool of documents was screened by title and abstract, followed by a full-text review for eligibility.

#### **Inclusion and Exclusion Criteria:**

##### **Inclusion Criteria:**

- Studies published in English between 2013 and 2024.
- Peer-reviewed articles and scholarly works that explicitly address circular economy and social entrepreneurship.
- Research focused on waste management, upcycling, recycling, or reuse initiatives driven by social enterprises.
- Studies offering empirical evidence, case studies, or comparative analyses.

##### **Exclusion Criteria:**

- Articles not published in English.
- Studies unrelated to both circular economy and social entrepreneurship.
- Theoretical papers lacking practical applications or real-world case studies.
- Duplicates, editorials, book reviews, and opinion pieces.

##### **Ethical Considerations:**

Since this study is based solely on secondary data from published sources, it does not involve any human participants or personal data collection. Nonetheless, the review process was conducted with academic integrity by ensuring proper attribution and citation of all sources. The selection and interpretation of literature were conducted impartially to avoid bias or misrepresentation of findings. Moreover, database access was used in accordance with institutional licensing agreements and copyright laws.

## **4. RESULTS AND DISCUSSION**

The study reveals a growing convergence between circular economy (CE) principles and social entrepreneurship (SE) practices, with increasing global recognition of their combined potential to generate both environmental sustainability and social impact. Across the literature, various models and case studies demonstrate how waste materials are being transformed into economic resources while simultaneously empowering marginalized communities.

##### **Key Findings:**

**1. Integration of CE and SE Principles:** Numerous studies highlight that social enterprises adopting circular strategies—such as upcycling, recycling, remanufacturing, and product-as-a-service models—achieve dual objectives. These include reducing environmental footprints and fostering inclusive economic participation. For instance, enterprises converting plastic waste into construction materials or textiles not only reduce landfill accumulation but also create employment for underserved populations.

**2. Value Creation from Waste:** The transformation of waste into marketable products stands out as a central mechanism of value creation. This value is not only economic but also social and environmental. Reviewed cases show that when waste is perceived as a resource, it opens avenues for innovation and entrepreneurship. Social ventures are increasingly leveraging local materials and traditional knowledge to develop sustainable business models.

**3. Empowerment and Inclusivity:** A recurring theme across the literature is the role of social entrepreneurship in community development. By involving local communities in waste collection, sorting, and product development, these initiatives provide income-generating opportunities, skill development, and social cohesion. Women and youth, in particular, emerge as key beneficiaries in several documented initiatives.

**4. Barriers to Scaling and Sustainability:** Despite the success stories, challenges persist. Social enterprises face difficulties in accessing funding, navigating regulatory environments, and competing with linear economy actors. Additionally, scaling circular initiatives while maintaining social impact requires balancing efficiency with community engagement. Some reviews suggest that support from public policies and partnerships with larger organizations are critical for long-term viability.

**5. Policy and Institutional Support:** Studies emphasize the importance of enabling environments for the growth of circular social enterprises. Governments that offer subsidies, tax incentives, and training programs facilitate broader adoption of circular models. Moreover, collaborations with academia and the private sector contribute to innovation and wider





dissemination of best practices.

### Synthesis and Implications:

The synthesis of existing literature suggests that social entrepreneurship serves as a catalyst for operationalizing circular economy principles at the grassroots level. It bridges the gap between waste management and livelihood creation, especially in low- and middle-income countries. However, unlocking the full potential of this intersection demands a systemic approach—one that includes education, infrastructure, policy reform, and market development.

Further research should focus on developing performance metrics tailored to hybrid value creation (economic, social, and environmental), and exploring the role of technology in enhancing scalability. There is also a need for longitudinal studies that evaluate the long-term impact of circular social enterprises on community resilience and ecological regeneration.

## 5. LIMITATIONS OF THE STUDY

This research paper on "Circular Economy and Social Entrepreneurship: Creating Value from Waste" presents an analysis of existing literature, theoretical frameworks, and practical examples of circular economy models integrated with social entrepreneurship. While the study offers valuable insights into the subject, several limitations must be acknowledged:

1. **Scope of Literature:** The review primarily focuses on academic journals, articles, and case studies available up to the year of publication. Consequently, emerging trends and innovations in circular economy and social entrepreneurship post-study may not be adequately covered.
2. **Geographical Bias:** A significant portion of the reviewed case studies and examples comes from specific regions, particularly Europe and North America, where circular economy practices and social entrepreneurship are more advanced. This limits the generalizability of findings to other regions, especially those in developing economies where such practices are still in nascent stages.
3. **Lack of Quantitative Analysis:** This paper is based primarily on qualitative reviews and theoretical frameworks, lacking quantitative data to support the findings. While qualitative analysis offers rich insights, quantitative research would provide more robust evidence to substantiate the claims regarding the impact of circular economy practices and social entrepreneurship on waste reduction, economic value, and social outcomes.
4. **Diversity of Social Entrepreneurship Models:** Social entrepreneurship is a diverse field, with various models and approaches depending on the specific context, industry, and geographical location. This study may not fully capture the complexity and diversity of social entrepreneurial models, as well as the varying impacts they may have on circular economy initiatives.
5. **Data Availability and Reliability:** Some of the case studies referenced in this review lack comprehensive data on long-term outcomes and impacts, making it difficult to measure the effectiveness of circular economy practices in driving sustainable development through social entrepreneurship.
6. **Evolving Terminology and Concepts:** The definitions and understandings of both "circular economy" and "social entrepreneurship" continue to evolve. Different scholars and practitioners may have varied interpretations of these terms, leading to inconsistencies in how they are applied across different contexts.
7. **Interdisciplinary Nature:** The topic of circular economy and social entrepreneurship intersects with various disciplines, such as environmental science, economics, sociology, and business. The interdisciplinary nature of the study may have led to the exclusion of relevant perspectives or research from some of these fields.
8. **Focus on Western Models:** Many examples of circular economy and social entrepreneurship are drawn from Western models, which may not be applicable or adaptable to the realities and challenges faced by social enterprises in other parts of the world, particularly in low-income or resource-constrained settings.
9. **Sustainability Metrics:** While the paper highlights the potential for value creation from waste through circular economy and social entrepreneurship, it does not extensively explore the specific metrics used to measure sustainability outcomes, which could vary across industries and regions.

While this paper offers a comprehensive analysis of circular economy and social entrepreneurship, it is important to recognize that the conclusions drawn are based on available literature and may not fully represent the diverse and dynamic nature of these fields. Further empirical research, including cross-cultural and longitudinal studies, is needed to gain a more complete understanding of the impacts and potential of circular economy models within social entrepreneurship.

### Future Scope

The future of the circular economy (CE) in social entrepreneurship holds immense promise, driven by innovation, sustainability goals, and the increasing urgency of addressing global environmental challenges. As businesses and societies



shift towards more sustainable models, there are several areas in which this field can evolve and expand:

1. **Scaling Social Impact through Technology:** The integration of advanced technologies such as Artificial Intelligence (AI), blockchain, and Internet of Things (IoT) can significantly enhance waste management, resource optimization, and product life cycle tracking within the circular economy. Social entrepreneurs could leverage these technologies to scale their impact, improve operational efficiency, and track environmental footprints more precisely. Future research could explore how emerging technologies can facilitate closed-loop systems in industries ranging from textiles to electronics.
2. **Policy Innovation and Regulation:** Governments around the world are beginning to recognize the importance of circular economy models in achieving sustainability targets. There is potential for stronger collaborations between social entrepreneurs and policymakers to develop regulatory frameworks that support circular business models. The role of public policy in incentivizing circular practices, offering tax benefits, and supporting research and development will be crucial. Further studies can focus on the effectiveness of such policies in diverse economies and their impact on fostering social enterprises.
3. **Cross-Sector Collaboration and Partnerships:** The future of circular economy and social entrepreneurship will likely be shaped by cross-sector partnerships. Collaboration between non-profit organizations, businesses, government entities, and academic institutions can help foster innovative solutions and create synergies. By forming alliances across industries, these partnerships can address challenges related to waste management, resource allocation, and market access. Research could investigate successful models of collaboration and how they can be replicated globally.
4. **Circular Economy in Emerging Markets:** Social enterprises in emerging markets have a unique opportunity to leverage the circular economy as a pathway to sustainable development. These regions often face significant challenges related to waste management, resource scarcity, and social inequality. Social entrepreneurs could explore ways to implement circular practices that cater to local contexts, including creating job opportunities, reducing waste, and improving living standards. Future studies can investigate the specific barriers and opportunities for circular economy practices in low-income and developing economies.
5. **Consumer Behavior and Engagement:** As awareness of sustainability grows, there is an increasing demand for circular products and services. However, a key challenge remains in changing consumer behavior to support circular models, such as encouraging the reuse, recycling, and repurposing of products. Social entrepreneurs will need to invest in consumer education and engagement strategies that highlight the benefits of circular economy practices. Research in this area could explore how to effectively communicate the value of circular products to consumers, especially in markets where such concepts are still emerging.
6. **Financing Circular Business Models:** One of the most pressing challenges facing social entrepreneurs in the circular economy is securing sustainable funding. Unlike traditional business models, circular ventures often require upfront investment in infrastructure, technology, and supply chains. Innovative financing solutions, including impact investing, green bonds, and circular economy-focused venture capital, will be critical in fueling the growth of these businesses. Future studies can examine financial models and instruments that can provide capital for circular ventures while ensuring their long-term viability.
7. **Measuring Success and Impact:** The transition to a circular economy requires the establishment of metrics that accurately measure the social, economic, and environmental impacts of circular ventures. While traditional financial metrics are often used to evaluate business success, circular enterprises require more comprehensive frameworks that account for environmental impact, resource efficiency, and social outcomes. Research into the development of these new metrics will be essential for assessing the true value created by circular businesses and guiding future investments in the sector.
8. **Circular Economy in Traditional Sectors:** Many traditional industries, such as construction, agriculture, and manufacturing, still rely heavily on linear production and consumption models. Social entrepreneurs have an opportunity to introduce circular economy principles in these sectors by promoting the reuse of materials, reducing waste, and implementing regenerative processes. Future research could investigate how circular economy strategies can be applied in these industries and the specific challenges that arise when transitioning from linear to circular models.

The future scope of circular economy and social entrepreneurship is broad and dynamic, encompassing a range of opportunities for innovation, collaboration, and sustainable growth. As the global focus on environmental and social challenges intensifies, the integration of circular economy principles into social entrepreneurship offers a powerful tool for creating long-term, positive change. Researchers, policymakers, and entrepreneurs will play pivotal roles in driving this transformation, ensuring that the circular economy becomes a cornerstone of a sustainable, equitable, and prosperous future.



## 6. CONCLUSION

The integration of Circular Economy (CE) principles with Social Entrepreneurship offers a transformative approach to addressing environmental and social challenges. By shifting from traditional linear models of production and consumption to circular models, businesses can reduce waste, conserve resources, and create value in ways that benefit both society and the environment. Social entrepreneurs, by leveraging the CE framework, not only create innovative solutions that close resource loops but also empower marginalized communities, foster local economic growth, and drive positive social change.

The research highlights the critical role of circular practices in waste management, renewable energy, and sustainable production. By adopting strategies such as product lifecycle management, recycling, and repurposing, social entrepreneurs can help reduce environmental footprints while simultaneously improving the livelihoods of disadvantaged groups. Furthermore, the intersection of social entrepreneurship and CE encourages systemic change, promoting sustainability as a core value across industries.

However, challenges such as scaling these models, accessing funding, and overcoming regulatory hurdles remain significant. To fully harness the potential of this synergy, it is essential to continue fostering collaboration between policymakers, investors, and the social enterprise community. Future research should explore the impact of circular business models on diverse sectors and further investigate the long-term benefits of integrating social entrepreneurship with sustainable practices.

Circular Economy and Social Entrepreneurship represent a powerful combination for creating a more sustainable, equitable future. By promoting innovation, reducing waste, and addressing social inequities, this approach offers a viable pathway for achieving both economic and environmental sustainability.

## REFERENCES

- [1] Andersen, M. S. (2007). An introductory note on the environmental economics of the circular economy. *Sustainability Science*, 2(1), 133–140. <https://doi.org/10.1007/s11625-007-0013-4>
- [2] Blomsma, F., & Brennan, G. (2017). The emergence of circular economy: A new framing around prolonging resource productivity. *Journal of Industrial Ecology*, 21(3), 603–614. <https://doi.org/10.1111/jiec.12603>
- [3] Bocken, N. M. P., Short, S. W., Rana, P., & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. *Journal of Cleaner Production*, 65, 42–56. <https://doi.org/10.1016/j.jclepro.2013.11.039>
- [4] Bocken, N. M. P., Short, S. W., Rana, P., & Evans, S. (2016). A literature and practice review to develop sustainable business model archetypes. *Journal of Cleaner Production*, 65, 42–56. <https://doi.org/10.1016/j.jclepro.2013.11.039>
- [5] Chertow, M. R. (2000). Industrial symbiosis: Literature and taxonomy. *Annual Review of Energy and the Environment*, 25, 313–337. <https://doi.org/10.1146/annurev.energy.25.1.313>
- [6] Circular Economy Promotion Act of the People's Republic of China. (2020). National Development and Reform Commission. <https://www.ndrc.gov.cn/>
- [7] De los Rios, I. M., & Charnley, F. (2016). The circular economy: A new sustainability paradigm? *Procedia CIRP*, 40, 87–92. <https://doi.org/10.1016/j.procir.2016.01.034>
- [8] Drayton, W. (2002). The citizen sector: Becoming as entrepreneurial and competitive as business. *California Management Review*, 44(3), 120–132. <https://doi.org/10.2307/41166194>
- [9] Elkington, J. (1997). *Cannibals with forks: The triple bottom line of 21st-century business*. Capstone Publishing.
- [10] Elkington, J. (1999). *Cannibals with forks: The triple bottom line of 21st century business*. Capstone Publishing.
- [11] Ellen MacArthur Foundation. (2013). *Towards the Circular Economy: Economic and business rationale for an accelerated transition*.
- [12] Frey, M. (2017). Social entrepreneurship: The role of social value creation. *International Journal of Social Economics*, 44(1), 50–60. <https://doi.org/10.1108/IJSE-09-2016-0245>
- [13] Geissdoerfer, M., Savaget, P., Bocken, N. M., & Hultink, E. J. (2017). The circular economy—A new sustainability paradigm? *Journal of Cleaner Production*, 143, 757–768. <https://doi.org/10.1016/j.jclepro.2016.12.048>
- [14] Ghisellini, P., Cialani, C., & Ulgiati, S. (2016). A review on circular economy: The expected transition to a balanced interplay of environmental and economic systems. *Journal of Cleaner Production*, 114, 11–32. <https://doi.org/10.1016/j.jclepro.2015.09.007>





- [15] Goyal, S., & Sarkis, J. (2017). A framework for assessing the economic impacts of waste to energy systems. *Waste Management & Research*, 35(9), 903–914. <https://doi.org/10.1177/0734242X17715281>
- [16] Gutberlet, J. (2015). Cooperative urban mining in Brazil: Collective practices in selective household waste collection and recycling. *Waste Management*, 45, 22–31. <https://doi.org/10.1016/j.wasman.2015.02.005>
- [17] Haider, Z., & Larsson, E. (2018). Social entrepreneurship and the circular economy: A business model approach. *Sustainability*, 10(11), 3996. <https://doi.org/10.3390/su10113996>
- [18] Hák, T., Janoušková, S., & Moldan, B. (2016). Sustainable development goals: A need for relevant indicators. *Ecological Indicators*, 60, 565–573. <https://doi.org/10.1016/j.ecolind.2015.08.003>
- [19] Hopkins, R. (2008). *The transition handbook: From oil dependency to local resilience*. Green Books.
- [20] Jørgensen, M. S., & Hall, P. D. (2017). Circular economy and sustainability: A literature review. *Journal of Environmental Management*, 204, 332–342. <https://doi.org/10.1016/j.jenvman.2017.08.049>
- [21] Kirchherr, J., Reike, D., & Hekkert, M. (2017). Conceptualizing the circular economy: An analysis of 114 definitions. *Resources, Conservation and Recycling*, 127, 221–232. <https://doi.org/10.1016/j.resconrec.2017.09.005>
- [22] Kirchherr, J., Reike, D., & Hekkert, M. (2018). Conceptualizing the circular economy: An analysis of 114 definitions. *Resources, Conservation and Recycling*, 127, 221–232. <https://doi.org/10.1016/j.resconrec.2017.09.005>
- [23] Korhonen, J., Honkasalo, A., & Seppälä, J. (2018). Circular economy: The concept and its limitations. *Ecological Economics*, 143, 37–46. <https://doi.org/10.1016/j.ecolecon.2017.06.041>
- [24] Kraus, S., Pihie, Z. A. L., & Salmela-Aro, K. (2020). Digital transformation and entrepreneurship: The rise of social entrepreneurship. *Journal of Small Business and Enterprise Development*, 27(5), 709–724. <https://doi.org/10.1108/JSBED-07-2019-0221>
- [25] Lacy, P., & Rutqvist, J. (2016). *Waste to wealth: The circular economy advantage*. Palgrave Macmillan.
- [26] Loorbach, D. (2010). Transition management for sustainable development: A prescriptive, complexity-based framework. *Governance*, 23(1), 161–183. <https://doi.org/10.1111/j.1468-0491.2009.01471.x>
- [27] Maas, K., & Liket, K. (2011). Social impact measurement: Classification of methods. *Environmental Management*, 48(3), 475–491. <https://doi.org/10.1007/s00267-011-9704-5>
- [28] Mair, J., & Marti, I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of World Business*, 41(1), 36–44. <https://doi.org/10.1016/j.jwb.2005.09.002>
- [29] Mair, J., & Marti, I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of World Business*, 41(1), 36–44. <https://doi.org/10.1016/j.jwb.2005.09.002>
- [30] Mazzucato, M. (2013). *The entrepreneurial state: Debunking public vs. private sector myths*. Anthem Press.
- [31] Murray, A., Skene, K., & Haynes, K. (2017). The circular economy: An interdisciplinary exploration of the concept and application in a global context. *Journal of Business Ethics*, 140(3), 369–380. <https://doi.org/10.1007/s10551-015-2693-2>
- [32] Pacheco, D. F., & Dean, T. J. (2015). Social entrepreneurship and the creation of social value. *Journal of Business Venturing*, 30(3), 229–246. <https://doi.org/10.1016/j.jbusvent.2014.09.002>
- [33] Preston, F. (2012). *A global rethink of the circular economy: A policy perspective*. Chatham House Report.
- [34] Preston, F., Lehne, J., & Wellesley, L. (2019). *An inclusive circular economy: Priorities for developing countries*. Chatham House.
- [35] Rizos, V., Behrens, A., Kafyeke, T., Hirschnitz-Garbers, M., & Wittmer, H. (2016). The circular economy: A review of definitions, processes, and impacts. CEPS Working Document No. 410. <https://www.ceps.eu/>
- [36] Smith, W. K., Gonin, M., & Besharov, M. L. (2013). Managing social-business tensions: A review and research agenda for social enterprise. *Business Ethics Quarterly*, 23(3), 407–442. <https://doi.org/10.5840/beq201323327>
- [37] Sorman, A. H., & Senn, P. (2020). The circular economy and the role of social entrepreneurs in waste management. *Journal of Social Entrepreneurship*, 11(2), 162–179. <https://doi.org/10.1080/19420676.2020.1735514>
- [38] Stahel, W. R. (2016). The circular economy. *Nature*, 531(7595), 441–443. <https://doi.org/10.1038/531441a>
- [39] Sukhdev, P. (2013). *The economics of ecosystems and biodiversity: The new economy of natural resources*.



The New Economics Foundation.

- [40] Thompson, M. L. (2018). Social entrepreneurship and sustainability: The role of circular economy. *Sustainability*, 10(6), 1732. <https://doi.org/10.3390/su10061732>
- [41] UNDP. (2015). Transforming our world: The 2030 Agenda for Sustainable Development.
- [42] Webster, K. (2015). The circular economy: A new pathway to sustainable growth. Ellen MacArthur Foundation Report.
- [43] Williams, I., & Schaefer, A. (2013). Small and medium-sized enterprises and corporate social responsibility: A literature review. *Business Ethics: A European Review*, 22(4), 424–451. <https://doi.org/10.1111/beer.12024>