

# INTEGRATING THE SOCIAL DIMENSION OF ESG INTO CIRCULAR BUSINESS MODEL TRANSFORMATIONS

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The transition towards circular economy business models is increasingly framed as a key instrument for achieving environmental sustainability and long-term economic resilience. However, the social dimension of sustainability within circular transformations remains underexplored in both academic research and corporate practice, despite its growing relevance in ESG frameworks. This paper addresses this gap by examining how social sustainability can be embedded into circular business model transformations in order to generate social as well as environmental value. Furthermore, the paper explores stakeholder engagement mechanisms within circular value chains, focusing on the involvement of employees and local communities as key contributors to socially inclusive circular practices. Finally, the alignment between corporate governance structures and social sustainability objectives is analysed, highlighting how governance mechanisms can facilitate the integration of social considerations into circular strategies. The paper links circular business model innovation with ESG social performance, contributing to sustainability and management literature.

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## 1 Introduction

The circular economy (abbreviation: CE) has become a central paradigm in sustainability research, promising systemic improvements in resource efficiency and waste reduction beyond linear production models (Bódizs, 2022). However, despite the widespread adoption of CE principles, academic studies show that the social dimension of sustainability is much less explored in CE research compared to environmental and economic aspects (Velenturf & Purnell, 2021). Despite increasing corporate interest in Environmental, Social, and Governance (abbreviation: ESG) frameworks, firms' sustainability reporting still tends to prioritise environmental over social performance (Nagy-Rádlí et al., 2025). Studies linking CE and ESG frameworks suggest that greater integration could enhance corporate accountability and sustainability performance, but emphasise that the relationship remains ambiguous in both theory and practice (Kopnina et al., 2025). Furthermore, stakeholder engagement has been identified as a key mechanism through which CE practices can be made socially responsive, but management literature has yet to systematically address how engagement influences sustainable value creation (Oberholzer & Sachs, 2023). Similarly, governance structures shape how organisations align circular strategies with broader social sustainability goals, but their role remains surprisingly underexplored in CE research (Al-Najjar et al., 2025). This paper aims to address this gap by developing a conceptual framework that explicitly integrates social sustainability into circular business model transformations. Against this backdrop, there is a clear need for conceptual work that bridges CE business model transformations and the ESG social pillar, making explicit how circular strategies can generate both environmental and social value. This paper proposes an integrative analytical framework to embed social sustainability into circular business models, emphasising human capital, stakeholder engagement, and governance alignment as key levers for socially equitable circular transitions. The novelty of the paper lies in treating the ESG social pillar not as an additional reporting category but as an active transformation mechanism within circular business model change. Unlike CE–ESG approaches that primarily focus on environmental performance or aggregate social aspects into broader sustainability outcomes, this framework specifies how human capital development, stakeholder engagement, and governance alignment can jointly shape socially inclusive circular transitions. In this way, the paper contributes to CE and ESG management literature

by clarifying the social mechanisms through which circular strategies may generate measurable social value.

## **2 Theoretical Background**

Although CE initiatives often affect employment and local communities (Ferrante et al., 2025), systematic measurement of social impacts remains scarce (Vanhuysse et al., 2021). Recent reviews argue for more inclusive CE frameworks that explicitly incorporate human and social dimensions alongside environmental targets (Mora-Contreras et al., 2023). ESG frameworks increasingly highlight social aspects, including labour standards, stakeholder relations, and community engagement (Martiny et al., 2024). While several CE–ESG conceptual models exist, most either marginalize the social dimension or aggregate it with environmental outcomes, leaving a gap for frameworks that operationalize social value creation systematically. This creates a theoretical limitation, because circular business models may generate environmental gains while simultaneously producing uneven social effects. For example, efficiency-oriented circular strategies can reduce material waste but may also reorganize work, shift risks to suppliers, or create new forms of insecure employment. Therefore, the social dimension should not be treated as an automatic consequence of circularity but as a distinct analytical and managerial concern.

However, empirical studies connecting ESG social performance to circular economy strategies are limited (Paea et al., 2023). The literature shows that firms can leverage ESG social metrics to enhance inclusivity and human capital development in circular transitions, but practical integration remains ad hoc and fragmented (Abbes, 2025). Stakeholder engagement is recognized as a critical mechanism for social value creation in CE initiatives (Oberholzer & Sachs, 2023). Employees, suppliers, and local communities influence the success of circular business models, yet research rarely examines how their involvement impacts social sustainability outcomes (Islam et al., 2025). Studies suggest that proactive engagement can mitigate negative social effects of CE transitions, such as workforce displacement or inequitable benefits distribution (Cerchione et al., 2025). Corporate governance structures can facilitate the integration of social sustainability objectives into circular business models (Al-Najjar et al., 2025). Governance mechanisms are critical for embedding ESG social considerations. In addition, workforce development, reskilling, and adaptive learning are increasingly recognized as prerequisites for successful CE transformations

(Eelager et al., 2025). Despite growing recognition of social sustainability, indicators for evaluating social impacts of CE are still underdeveloped. Current approaches often lack consistency, comparability, and operational feasibility. Consequently, there is a clear research gap in understanding how circular business model transformations can systematically integrate ESG social objectives, including human capital development, stakeholder engagement, and governance alignment.

### **3 Methodology**

#### **3.1 Conceptual Framework**

Building on the literature, this paper proposes a conceptual framework that integrates the ESG social pillar into circular business model transformations. The framework positions social sustainability as a guiding principle shaping three key dimensions of CE initiatives: human capital development, stakeholder engagement, and corporate governance. Human capital development is conceptualized as a critical enabler of socially responsible circular transitions. Stakeholder engagement is treated as a mechanism through which social objectives are operationalized within circular value chains, particularly through the involvement of employees and local communities. Governance structures, such as board oversight, accountability mechanisms, and sustainability policies, are proposed to align circular strategies with ESG social objectives and ensure systematic integration. The framework also incorporates feedback loops, whereby social performance outcomes inform governance decisions and organizational learning. CE transformations are conceptualized as integrated sustainability processes capable of generating measurable social value alongside environmental benefits. The framework operationalizes social sustainability using indicators such as job quality, inclusion, and community well-being, which are linked to the feedback loops illustrated in Table 1.

#### **3.2 Conceptual Research Approach and Model Development**

This paper adopts a conceptual research approach aimed at theory building and model development. Rather than relying on empirical data, the framework is developed through a structured synthesis of literature on circular economy, ESG, social sustainability, stakeholder engagement, and corporate governance. A

conceptual approach is appropriate at this stage because the integration of the ESG social pillar into circular business model transformation remains fragmented and insufficiently theorized. Existing research identifies relevant social issues, such as employment effects, stakeholder participation, and governance accountability, but these elements are rarely connected into a coherent framework. The purpose of this paper is therefore not to test causal relationships empirically, but to clarify key constructs, specify their interrelationships, and provide a theoretically grounded basis for future empirical validation.

Key constructs and their interrelationships are identified and refined through iterative analysis and logical reasoning. The model maps the causal mechanisms linking circular business model transformations to social value creation, with governance and stakeholder engagement positioned as mediating mechanisms. Emphasis is placed on theoretical coherence and generalizability rather than empirical validation. The resulting framework provides a foundation for future empirical research, comparative analysis, and policy-oriented studies on socially inclusive circular economy transitions.

#### **4 Analytical Elaboration Of The Conceptual Framework**

Human capital development functions as a foundational mechanism in socially responsible circular transitions. Circular strategies often require new skills, adaptive learning, and changes in work organization. Without deliberate investment in reskilling, upskilling, and job quality, circular initiatives may unintentionally produce negative social outcomes, including workforce exclusion, job polarization, or the displacement of workers whose skills no longer match redesigned circular processes. Within the proposed framework, human capital development mitigates these risks by strengthening employability and enabling workers to participate in new circular activities such as repair, reuse, remanufacturing, and service-based models.

Stakeholder engagement complements human capital development by identifying which groups are affected by circular transformation and how benefits and burdens are distributed across the value chain. Employees, suppliers, and local communities may experience circular initiatives differently, therefore, their involvement helps reveal potential social risks before they become embedded in business model design. Governance alignment then provides the accountability structure through which

these concerns can be translated into measurable objectives, resource allocation, and performance monitoring.

**Table 1: Conceptual framework illustrating the integration of the ESG social pillar into circular business model transformations**

Key actors	Inputs	Actions	Outputs	Outcomes	Feedback
Employees HR/Management Training teams	Skills assessment tools, learning platforms, training budget	Reskilling programs, workshops, mentoring, adaptive work design	Employees acquire new skills, increased adaptability	Enhanced employability, job quality, workforce resilience	Employee performance and satisfaction inform further training cycles
Employees Local communities Suppliers NGOs	Engagement platforms, communication channels, participation incentives	Co-creation workshops, community consultations, supplier collaboration	Active stakeholder participation, feedback collection	Equity, inclusion, social legitimacy, co-created value	Feedback incorporated into design and strategy refinement
Board, Sustainability managers, Compliance officers	ESG reporting frameworks, governance charters, policy guidelines	Policy development, strategic decision-making, performance evaluation	Alignment of circular initiatives with social objectives	Consistent social performance, accountability, risk mitigation	Governance reviews adapt strategies based on social performance data
Sustainability teams Analysts HR	Social metrics, CE performance data, ESG indicators	Develop and track KPIs for job quality, inclusion, community well-being	Data on social performance	Evidence-based assessment of social value	KPI outcomes inform strategy adjustments and continuous improvement
All internal stakeholders	Knowledge management systems, lessons-learned repositories	Reflection sessions, best-practice documentation, workshops	Knowledge captured and shared	Continuous improvement of circular and social strategies	Lessons learned feed back into human capital development and stakeholder engagement
Local communities CSR teams	Community resources, partnerships, funding	Social projects aligned with circular initiatives	Community participation, local awareness	Enhanced well-being, social cohesion, community resilience	Community feedback informs future circular projects

The framework also acknowledges that circular business model transformations may involve trade-offs between environmental efficiency and social equity. For example, a Product-as-a-Service model may reduce material consumption and extend product lifecycles, but it can also reorganize employment relations, increase monitoring pressures, or create more precarious service-based jobs if social safeguards are absent. Similarly, automation-enabled circular operations may improve resource efficiency while reducing demand for certain occupational groups. These tensions demonstrate why social sustainability must be integrated into circular strategy from the design stage rather than assessed only after implementation. The framework suggests that higher levels of stakeholder engagement strengthen the social legitimacy and acceptance of circular business models. Furthermore, governance alignment plays a coordinating role by embedding social sustainability objectives into strategic decision-making. Governance mechanisms shape resource allocation, performance evaluation, and accountability structures, thereby influencing whether social considerations are systematically integrated or remain symbolic. Feedback loops within the framework indicate that social performance outcomes can inform governance adjustments and organizational learning over time.

These mechanisms illustrate how circular economy transformations can move beyond environmental efficiency toward broader social value creation. The analytical elaboration demonstrates that social outcomes are not automatic by-products of circularity but depend on deliberate organizational and governance choices. Table 1. presents the key mechanisms through which circular strategies generate social value. Human capital development enables workforce adaptation and skill acquisition, stakeholder engagement ensures inclusive participation across employees and local communities, and governance alignment embeds social objectives into strategic decision-making. Feedback loops illustrate the dynamic interactions between social performance outcomes and organizational learning, highlighting how circular economy transformations can produce both environmental and social value in an integrated manner.

## **5 Discussion**

The proposed framework extends existing CE and ESG literature by positioning the social dimension as a transformation mechanism rather than as a secondary outcome of circularity. While many circular economy approaches primarily emphasize

environmental efficiency and resource optimization, the present framework highlights that circular business model change also restructures work, stakeholder relations, and governance responsibilities. This distinction is important because social value does not emerge automatically from circular practices, it depends on how organizations design, implement, and monitor circular strategies.

From a managerial perspective, the framework can be used as a diagnostic tool before and during circular business model transformation. For example, when a manufacturing company shifts from product sales to a repair- and service-based circular model, managers can assess whether affected employees receive reskilling opportunities, whether newly created service jobs provide adequate working conditions, and whether worker representatives or local communities are involved in redesigning roles and responsibilities. In this way, the framework supports the identification of social risks such as workforce displacement, job polarization, or exclusion from new circular value creation opportunities.

The framework also has implications for policymakers. Public support for circular economy initiatives should not focus exclusively on environmental performance indicators, but should also require evidence of social safeguards, inclusive training, stakeholder consultation, and community-level benefits. Linking circular economy policy with ESG social indicators can help ensure that the transition contributes to both environmental sustainability and social equity.

At the same time, the conceptual nature of the model represents a limitation. The framework is grounded in existing literature and theoretical reasoning, but it has not yet been empirically validated. Future research should test the framework across sectors and organizational contexts through case studies, surveys, or comparative analyses. Such research could examine whether the proposed indicators are measurable, comparable, and useful for managerial decision-making in practice.

## **6**      **Conclusions**

This research has proposed a conceptual framework for integrating the ESG social pillar into circular business model transformations, highlighting human capital development, stakeholder engagement, and governance alignment as central mechanisms for generating social value. The framework offers both theoretical and

practical contributions. Theoretically, it bridges CE and ESG social literature, positioning social mechanisms as central rather than peripheral. Practically, it provides guidance for managers and policymakers on designing circular strategies that deliver measurable social benefits alongside environmental outcomes. Future research should empirically validate the framework across different sectors, regions, and organizational contexts. Comparative case studies, surveys, and simulation models could examine the effectiveness of human capital initiatives, stakeholder engagement, and governance practices in generating social value. Furthermore, operationalization of social sustainability indicators remains an open area, including developing robust, comparable, and feasible metrics for assessing social outcomes in circular business models (Csutora et al., 2022). Managers and policymakers can use the framework to design circular strategies that not only reduce environmental impact but also enhance social inclusion and workforce development. By foregrounding social value creation alongside environmental goals, this paper provides a foundation for future research and managerial practice, supporting more just and socially responsible circular economy transitions.

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