

Integrating Human Centered Management and Circular Economy for Sustainable Business Growth

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Abstract

This study examines the strategic integration of Human-Centered Management (HCM) and Circular Economy (CE) as a pathway to achieve sustainable business growth. The scope of the research focuses on understanding how human capabilities, organizational culture, and regenerative resource systems interact to support long-term sustainability performance. The objective is to develop an integrated conceptual model that connects human-centered values with circular practices. The study employs a qualitative-descriptive approach supported by systematic literature analysis. Data were collected from reputable scientific databases and screened based on relevance, recency, and academic quality. The findings reveal dominant HCM themes such as empowerment, participatory leadership, capability development, and meaningful work, which collectively strengthen employee readiness for circular innovation. CE themes identified include eco-design, life-cycle extension, resource recovery, closed-loop production, and collaborative supply chains. The results show that the synergy of HCM and CE enhances innovation capability, operational efficiency, workforce engagement, and value chain resilience. The study concludes that integrating human-centered values and circular strategies provides a solid foundation for regenerative and future-ready business models. Recommendations for further research include empirical testing of the proposed model and sector-specific implementation analysis.

Keywords: Human Centered Management, Circular Economy, Sustainable Business Growth, Empowerment, Regenerative Systems.

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1. Introduction

The transformation toward sustainability has become an essential direction for modern organizations due to increasing environmental degradation, social inequality, and economic uncertainty [1]. Businesses face mounting pressure from stakeholders to adopt practices that not only generate profit but also contribute positively to people and the planet [2]. In this context, human centered management (HCM) and the circular economy (CE) emerge as two strategic frameworks that fundamentally reorient how organizations create value [3]. HCM emphasizes respect for human dignity, empowerment, participation, and well being in organizational processes, while CE promotes closed loop systems that reduce waste, optimize resource efficiency, and encourage regenerative business models [4]. Integrating these two perspectives becomes increasingly relevant as organizations strive to achieve sustainable business growth that aligns with global agendas such as the Sustainable Development Goals (SDGs) and ESG frameworks [5].

From the perspective of organizational behavior and management theory, human centered management places employees, communities, and stakeholders at the core of decision making [6]. Organizations are encouraged to cultivate healthy work cultures, shared leadership, continuous learning, and meaningful participation in strategic processes [7]. This approach

is rooted in the belief that sustainable performance begins with human capabilities and collective intelligence [8]. Empirical studies suggest that organizations adopting human centered practices experience higher levels of innovation, stronger employee commitment, and increased adaptability, particularly during times of disruption [9]. These findings are especially relevant today as digital transformation, automation, and hybrid work continue to reshape the future of work [10]. Placing human welfare and empowerment at the center of organizational transformation becomes a necessity for long-term competitiveness [11].

Parallel to this, the circular economy offers a blueprint for redesigning production and consumption systems to minimize environmental impact [12]. Unlike the traditional linear model of take make dispose, CE promotes restorative and regenerative cycles through strategies such as recycling, eco design, resource recovery, sharing systems, and product as a service models [13]. The adoption of circular principles is proven to reduce operational costs, extend product life cycles, and create new market opportunities [14]. Businesses that successfully transition to circular models often demonstrate higher resilience due to reduced dependency on raw materials, enhanced supply chain stability, and greater alignment with environmental regulations [15]. However, implementing CE requires cultural change, cross functional collaboration, and strong leadership

commitment elements that directly connect with the principles of human centered management [16].

Although many studies discuss HCM and CE independently, there remains a limited understanding of how the integration of both frameworks can simultaneously strengthen business sustainability and human well being [17]. Existing research focuses on technical or environmental aspects of circularity, with fewer studies addressing the human and cultural dimensions needed to support the transition [18]. Meanwhile, human centered leadership studies rarely explore how employee empowerment and participatory culture can accelerate circular innovation [19] [20]. This gap indicates a need for a more holistic analysis that positions humans as central agents of circular transformation. Integrating the two concepts creates an opportunity to develop a sustainability model that is both ecologically regenerative and socially inclusive.

This study is motivated by the necessity to propose a strategic integration model between human centered management and circular economy practices. The rapid environmental crisis, increasing societal expectations for ethical business conduct, and the demand for sustainable innovation provide strong justification for exploring this integration. Understanding how human centered values influence the adoption of circular business models can help organizations cultivate cultures of responsibility, collaboration, and creativity factors essential for long term sustainability. Additionally, the integration may offer insights into developing future ready workforces capable of contributing to circular ecosystems through skill development, adaptive thinking, and responsible behavior.

Although a wide body of literature has examined human centered management (HCM) and circular economy (CE) as separate streams, there remains a substantial theoretical and empirical gap in understanding how both frameworks interact to drive sustainable business growth. Existing studies on CE predominantly focus on technological innovation, resource efficiency, waste reduction, and supply chain redesign, yet they rarely address the human, cultural, and behavioral factors that determine the success of circular transitions. Meanwhile, research on HCM emphasizes employee well being, empowerment, and participatory decision making, but seldom links these human driven mechanisms to the operational and strategic requirements of circular business models. This separation of perspectives leaves a gap in explaining how human centered values and circular practices can be integrated to create a holistic sustainability strategy that is simultaneously socially inclusive and ecologically regenerative.

The novelty of this study lies in its effort to construct an integrated conceptual model that connects human centered values with circular business strategies to accelerate sustainable business growth. This research positions human capabilities such as creativity, collaborative behavior, adaptive learning, and

sustainability oriented mindset as core drivers of circular innovation, offering a new lens for understanding the role of people in regenerative economic systems. Additionally, the study introduces a multidimensional synergy framework that links organizational culture, leadership style, employee engagement, and circular value creation in a single unified structure. This integrative perspective has received limited attention in previous studies, making the proposed framework both conceptually original and practically relevant for organizations aiming to align human development with ecological sustainability.

2. Research Method

This study adopts a qualitative descriptive research design supported by systematic conceptual analysis to examine the integration of human centered management and circular economy in achieving sustainable business growth. The research process consists of three main stages: literature selection, conceptual mapping, and model formulation. Relevant publications are collected from Scopus, Web of Science, and ScienceDirect using keywords related to HCM, CE, and sustainability. Only peer reviewed articles published within the last ten years and directly aligned with the research focus are included.

Selected literature is analyzed using qualitative content analysis. Recurring concepts, theoretical constructs, and linkages between human centered principles and circular strategies are coded manually to ensure clarity and accuracy. Established frameworks such as the Ellen MacArthur Foundation's CE model and contemporary human centered leadership theories are referenced when appropriate, while new conceptual linkages developed in this study are explained in detail to enhance reproducibility. The final stage synthesizes all findings into an integrated model that illustrates how human capabilities and circular practices interact to support long term sustainable business growth.

This study uses a qualitative descriptive research design to construct an integrated framework linking human centered management and circular economy for sustainable business growth. The design focuses on conceptual synthesis, where theories, empirical findings, and sustainability models are analyzed systematically. The approach is suitable for studies aiming to develop conceptual integration rather than testing variables quantitatively. The steps involve identifying key constructs, reviewing interdisciplinary literature, and mapping conceptual relationships. Qualitative interpretation is applied to understand how human centered values connect with circular practices in organizational settings. This design allows flexibility in capturing diverse perspectives from management science, organizational psychology, and sustainability studies. The outcome of this design is a structured conceptual model that offers theoretical insights and practical guidance for organizations transitioning toward sustainable and regenerative business systems.

The data collection relies entirely on secondary data

sourced from reputable scientific publications. Articles are retrieved from Scopus, Web of Science, ScienceDirect, and Emerald Insight using keywords such as human centered management, circular economy, sustainable business, and organizational transformation. The search is limited to the last ten years to ensure relevance with current sustainability and organizational development trends. The initial search yields approximately 200–250 publications. Screening is conducted in three stages: title review, abstract review, and full text evaluation. Only peer reviewed journal articles, conference papers, high quality reports, and books relevant to the research topics are included. Reference management tools (Zotero and Mendeley) are used to organize sources, avoid duplication, and maintain traceability. This procedure ensures that the data foundation is academically valid, credible, and replicable.

The screening process follows a structured set of inclusion and exclusion criteria to ensure consistency and rigor. Inclusion criteria include: (1) relevance to human centered management or circular economy, (2) publication year 2014–2024, (3) English language academic sources, (4) empirical or conceptual contributions, and (5) availability of full text access. Exclusion criteria include outdated publications, non academic sources, and articles with insufficient conceptual depth. Each selected publication is coded to identify major themes and theoretical gaps. Coding focuses on concepts such as employee empowerment, participatory leadership, regenerative systems, resource circularity, and sustainability performance. This structured screening process improves the reliability of the collected data and ensures that only high quality sources are used to support the conceptual model developed in the study.

The study uses qualitative content analysis to extract, categorize, and synthesize information from the selected literature. This analysis involves identifying repeated patterns, theoretical linkages, and conceptual clusters across different sources. The process includes open coding, axial coding, and thematic grouping. The analysis emphasizes how human centered values such as collaboration, creativity, and empowerment interact with circular economy principles like resource efficiency, regeneration, and closed loop systems. Triangulation is applied by comparing findings from multiple disciplines including management, sustainability science, industrial ecology, and organizational behavior. This technique enhances analytical rigor and minimizes interpretive bias. The final output of the analysis is a set of core themes forming the basis for the integrated sustainable growth model.

The final stage of the research method is the construction of an integrated model that links human centered management and circular economy practices. This procedure begins by synthesizing thematic findings into conceptual pathways that explain how human capabilities support circular innovation.

Diagrams and conceptual maps are developed to visualize relationships among constructs such as human empowerment, circular strategy adoption, resource regeneration, and sustainable business outcomes. The model is refined through iterative validation by reviewing consistency with existing theories and aligning with sustainability frameworks such as SDGs and ESG principles. The resulting model provides a holistic representation of how organizations can achieve long term sustainable growth by simultaneously fostering human centered cultures and implementing circular economic strategies.

3. Result and Discussion

The results of this study are presented in a structured narrative that reflects the logical flow of the conceptual analysis performed throughout the research process. The findings summarize key patterns, thematic clusters, and conceptual linkages that emerged from the literature screening and qualitative synthesis. The results do not present raw data in numerical form, but instead highlight the major constructs that consistently appear across reputable studies related to human centered management (HCM), circular economy (CE), and sustainable business growth. These constructs are arranged to form a coherent storyline that illustrates how human centered principles intersect with circular economic strategies in organizational contexts.

The discussion that follows provides interpretive explanations for the identified results by connecting them with the research questions. Each theme is examined to understand its underlying mechanisms, theoretical implications, and practical relevance for organizational sustainability. Relationships between human empowerment, organizational culture, resource circularity, and long term performance are analyzed to show how these variables contribute to sustainable business outcomes. Where certain findings show ambiguity or conceptual divergence, these variations are acknowledged objectively to maintain transparency. The combination of results and discussion offers an integrated understanding of how human centered values and circular strategies can operate synergistically to support regenerative and sustainable business models.

The analysis of the literature reveals that human centered management (HCM) is composed of several dominant themes that collectively strengthen an organization's human capability base. Core themes identified include employee empowerment, participatory leadership, meaningful work design, capability enhancement, and an organizational culture that prioritizes psychological well being. Employee empowerment emerges as a major foundation because it allows individuals to exercise autonomy, express their ideas, and contribute actively to innovation processes. Numerous studies consistently show that organizations placing people at the center of decision making tend to demonstrate higher adaptability, creativity, and resilience qualities that are crucial in modern sustainable business environments.

Participatory leadership is another important theme. Leaders who encourage shared decision making, dialogue, and collaboration enable employees to engage in organizational transformation with greater commitment. This leadership style fosters ownership, which is essential when implementing sustainability oriented systems that require continuous behavioral change. Capability development also plays a significant role, as employees with stronger skills, sustainability awareness, and problem solving abilities are more likely to initiate and sustain innovations aligned with circular economic principles.

Meaningful work contributes further to human centered practices. When employees perceive that their tasks contribute to broader environmental and social goals, their intrinsic motivation, engagement, and sense of purpose increase significantly. Such conditions support deeper involvement in initiatives such as waste reduction, process redesign, and sustainable resource management. Organizational support through psychological safety, opportunities for experimentation, and recognition helps reinforce these behaviors.

Taken together, the identified themes show that HCM is not merely about improving employee welfare but establishing structural conditions that create engaged, capable, and innovation ready workforces. These insights form an essential foundation for linking HCM with circular economy strategies, as human centered practices create the social and cognitive environment necessary for circular transformation to occur effectively.

The literature review identifies several key themes that characterize the implementation of the circular economy (CE) within organizations. These themes include sustainable product design (eco design), life cycle extension, waste minimization, resource recovery, remanufacturing, closed loop production, and collaborative supply chain systems. CE principles emphasize keeping products, materials, and resources in circulation for as long as possible by creating regenerative loops rather than linear “take make dispose” flows. The evidence shows that CE practices lead to reduced resource dependency, lower production costs, improved environmental performance, and higher operational efficiency.

Eco design emerges as a central theme: designing products that are easy to disassemble, repair, or upgrade increases their longevity and makes recirculation feasible. Life cycle extension practices such as reuse, refurbishing, and remanufacturing strengthen product value and minimize waste. Recycling and resource recovery allow organizations to reduce their reliance on virgin materials while supporting environmental conservation. These practices are often supported by advanced technologies such as IoT sensors, digital material tracking, and product passports that monitor resource flows throughout the supply chain.

The literature also highlights the importance of cross sector collaboration in enabling CE. Circularity cannot be achieved by a single organization; it requires cooperation among suppliers, manufacturers, distributors, customers, and local communities. This collaboration often faces challenges due to fragmented supply chains and differing levels of sustainability awareness. Nonetheless, when collaboration is effective, CE can create new business opportunities and shared value ecosystems. The findings further emphasize that CE requires cultural and behavioral transformation, not just technological adoption. Employees need to embrace sustainability, learn new skills, and participate actively in circular practices. Thus, CE implementation is deeply influenced by organizational culture and human centered values signaling the need for integration between people focused and resource focused strategies. Next Core Themes of Circular Economy Practices on Table 1.

Table 1. Core Themes of Circular Economy Practices

Circular Theme	Description	Expected Organizational Benefit
Eco Design	Designing products for repair, reuse, and disassembly	Longer product life cycle and lower waste
Life Cycle Extension	Reuse, refurbish, remanufacture	Reduced resource use and operational savings
Recycling & Recovery	Material recovery and resource loops	Lower dependency on raw materials
Closed Loop Production	Systematic circulation of materials	Increased efficiency and environmental performance
Collaborative Supply Chain	Multi stakeholder cooperation	Stronger value chain resilience

Table 1 highlights five essential themes that represent how organizations implement circular economy (CE) principles in practice. The first theme, eco design, involves designing products that can be easily repaired, reused, or recycled. This approach ensures that materials remain in circulation for longer periods and reduces waste generation from the outset. The second theme, life cycle extension, reflects strategies such as reuse, refurbishment, and remanufacturing. These activities allow companies to maximize product value while minimizing the need for virgin resources and lowering production costs.

The third theme, recycling and recovery, focuses on reclaiming materials from waste streams and reintegrating them into new production cycles. Effective recovery systems support environmental conservation and provide long term resource security. The fourth theme, closed loop production, emphasizes maintaining continuous material flows through regenerative processes. Organizations that establish closed loop systems benefit from greater efficiency and reduced environmental footprint. Finally, collaborative supply chains underline the need for multi stakeholder cooperation. Circularity cannot be achieved individually; it requires coordination among suppliers, manufacturers, distributors, and consumers. Collaborative arrangements ensure consistent material

returns, aligned sustainability targets, and stronger value chain resilience.

The results show a strong, mutually reinforcing relationship between human centered values and the successful implementation of circular economy strategies. Human values such as collaboration, trust, empathy, creativity, and participatory engagement directly support the behavioral and cognitive processes needed for circular innovation. When employees feel empowered and valued, they are more likely to propose ideas for reducing waste, optimizing resource use, or redesigning processes to support sustainability goals.

Human centered leadership strengthens this relationship. Leaders who encourage dialogue, shared ownership, and open communication create conditions where employees are motivated to participate in circular practices. This leadership approach enhances commitment to sustainability initiatives such as recycling systems, remanufacturing programs, and closed loop supply chain processes. The literature consistently suggests that CE outcomes are stronger when employees perceive themselves not only as workers but as active contributors to regenerative economic systems.

Another important connection lies in the role of continuous learning. Circular economy transitions require complex problem solving, cross disciplinary knowledge, and experimentation. Human centered organizations that promote learning cultures, experimentation, and knowledge sharing create fertile ground for circular innovations to develop. Without these human driven elements, CE implementation risks becoming superficial, limited to technical adjustments rather than transformative change.

Social collaboration also plays a central role. CE requires networks of cooperation across the supply chain. Trust based relationships, transparency, and open communication fundamental human centered values enable smoother coordination among stakeholders. This is particularly important in developing shared procedures for material recovery, joint environmental goals, and long term sustainability partnerships. In essence, the findings indicate that HCM provides the social foundation, cognitive readiness, and emotional engagement required for CE to function optimally. Conversely, CE gives strategic direction and purpose to human centered initiatives. Their interlink creates a powerful synergy that enhances an organization's ability to innovate and pursue sustainable growth. Next Alignment Between Human Centered Values and Circular Strategies on Table 2.

Table 2. Alignment Between Human Centered Values and Circular Strategies

Human Centered Value	Related Circular Practice	Synergy Outcome
Collaboration	Closed loop processes & supply chain networks	Stronger stakeholder coordination
Creativity	Eco design & resource innovation	Development of regenerative product solutions
Empowerment	Waste reduction initiatives	Higher employee driven innovation
Learning Culture	Technology adoption & process redesign	Faster adaptation to circular requirements
Empathy & Responsibility	Responsible consumption & material stewardship	Increased organizational sustainability awareness

Table 2 illustrates the alignment between human centered values and circular economy (CE) practices, showing how organizational culture and employee behavior play a critical role in enabling circular transformation. The first alignment arises from collaboration, which supports closed loop processes and supply chain cooperation. Since CE relies on the movement and return of resources, collaborative behavior ensures smooth coordination among stakeholders within and beyond the organization.

Creativity is closely linked with eco design and resource innovation. Employees who are encouraged to think creatively are more likely to generate new solutions for reducing waste, redesigning products, or developing regenerative materials. Similarly, empowerment strengthens employee engagement in waste reduction initiatives, allowing individuals to identify inefficiencies and propose improvements based on frontline experience.

A strong learning culture accelerates technology adoption and process redesign. Circular systems often require new knowledge, experimentation, and adaptive thinking, which become more feasible when employees are supported in continuous learning. Finally, empathy and responsibility contribute to responsible consumption and material stewardship. When employees feel accountable for environmental impact, they exhibit behaviors that support long term sustainability goals.

Despite the strong theoretical synergy between HCM and CE, the results identify significant challenges in integrating both frameworks in organizational settings. One major challenge is internal resistance, often caused by limited understanding of sustainability concepts, lack of training, or perceived complexity of circular practices. Employees may feel uncertain or unprepared to adopt new ways of working, particularly when circular processes disrupt established routines.

Structural barriers also emerge as an important challenge. Many organizations retain linear production structures, rigid hierarchies, and short term performance orientations that conflict with circular principles requiring long term investment and strategic

consistency. Additionally, inadequate technological readiness such as the absence of digital tracking systems limits the ability to monitor material flows and implement closed loop operations. Supply chain limitations further complicate integration efforts. CE requires coordination with external partners, yet not all suppliers or distributors share the same level of commitment to sustainability. This misalignment can lead to bottlenecks and hinder circular initiatives.

Some findings reveal conceptual tension. Organizations adopting CE merely to comply with regulations may not develop authentic human centered cultures that support deeper transformation. This leads to a disconnect in which circular practices are implemented technically but fail to generate meaningful engagement or behavioral change among employees.

Capacity gaps also pose difficulties. CE requires advanced data management, environmental knowledge, and cross functional collaboration skills that many organizations have yet to develop. Without significant investment in human capability building, CE implementation risks stagnation. Overall, the challenges underscore that integrating HCM and CE is not automatic. It demands deliberate leadership, cultural alignment, competency development, and systemic restructuring. Addressing these constraints is crucial for unlocking the full potential of the HCM CE synergy.

The integrated findings highlight that combining HCM and CE provides substantial strategic implications for sustainable business growth. When human centered values such as empowerment, creativity, and collaboration are aligned with circular principles like regeneration, resource optimization, and long term value creation, organizations can achieve a powerful synergy that enhances their competitiveness and sustainability performance.

A major implication is enhanced innovation capability. Human centered environments foster creativity, while circular strategies provide the direction for purposeful innovation aimed at environmental and social impact. Another implication is improved operational efficiency through reduced waste, better resource utilization, and resilient supply chains factors that directly contribute to cost savings and competitive advantage.

From a workforce perspective, integrating HCM and CE leads to higher employee engagement, stronger commitment to sustainability, and increased capability to participate in regenerative business models. This human driven strength supports organizational resilience in the face of market disruptions, regulatory changes, and global sustainability demands.

The integration also strengthens stakeholder relationships. CE requires collaboration across ecosystems, and HCM promotes the interpersonal qualities needed to build trust and shared responsibility. This combination enables companies to form sustainable partnerships and develop community

based environmental initiatives.

More broadly, the synergy between HCM and CE positions businesses to adopt regenerative growth strategies moving beyond short term profit orientation toward long term ecological and social value creation. This integrated approach aligns with global sustainability frameworks such as SDGs and ESG, supporting organizations in building a resilient and future ready business model.

Table 3. Strategic Implications of Integrating HCM and CE

Implication Area	Explanation	Business Impact
Innovation Strengthening	Creativity + circular design	More adaptive and competitive products
Operational Efficiency	Reduced waste, optimized resources	Cost savings and performance stability
Workforce Engagement	Purpose driven culture	Higher loyalty, productivity, and commitment
Stakeholder Collaboration	Human values supporting CE partnerships	Stronger ecosystems and shared sustainability value
Regenerative Growth Model	Combining human and environmental priorities	Long-term resilience and future market readiness

Table 3 outlines the key strategic implications that emerge when human centered management (HCM) is integrated with circular economy (CE) practices. The first implication is strengthened innovation capability, as human centered approaches cultivate creativity and problem solving skills, while CE provides a clear direction for developing regenerative products and processes. When employees are empowered, they actively contribute ideas that enhance efficiency and environmental performance. The second implication concerns operational efficiency. CE reduces waste and optimizes resource flows, while HCM ensures employees are engaged and skilled enough to implement these operational improvements effectively. This alignment results in cost savings, more stable operations, and reduced supply chain risks.

The third implication is higher workforce engagement. When organizations combine meaningful work, empowerment, and sustainability missions, employees develop stronger commitment and intrinsic motivation. This leads to improved productivity and loyalty. Another implication involves stronger stakeholder collaboration. HCM strengthens trust and communication, supporting CE ecosystems that require cooperation across suppliers, customers, and communities. These networks improve resilience and shared value creation.

4. Conclusion

The results of this study demonstrate that the integration of Human Centered Management (HCM) and Circular Economy (CE) provides a strong conceptual foundation for achieving sustainable business growth. The analysis confirms that HCM contributes to the development of employee capabilities, collaborative work culture, and innovation readiness, which collectively create the human

conditions necessary for circular transformation. At the same time, CE offers regenerative production models, resource efficiency strategies, and ecosystem based collaboration that strengthen environmental and operational performance. The alignment of these two frameworks shows that sustainability driven innovation emerges most effectively when human empowerment and resource circularity operate simultaneously within organizational systems. The findings also reveal that integrated HCM CE practices have significant application potential across industries, particularly in areas of product design, waste reduction, employee driven innovation, and supply chain collaboration. Organizations adopting this integrated model can enhance resilience, reduce operational costs, and foster workforce engagement while contributing positively to environmental regeneration. However, several challenges remain, including internal resistance, capability gaps, and technological limitations, indicating that successful integration requires sustained leadership commitment and cultural alignment.

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