

Bojan Krstić¹

Ljiljana Bonić²

Milica Jovanović Vujatović³

University of Niš, Faculty of Economics

Tamara Radenović⁴

University of Niš, Faculty of Occupational Safety

P. 51-74

SCIENTIFIC ORIGINAL PAPER

10.5937/ESD2501051K

Received: September 1, 2024

Accepted: January 22, 2025

KEY ASPECTS AND DETERMINANTS OF BUSINESS PERFORMANCE MANAGEMENT PROCESS IN REGENERATIVE ENTERPRISES

Abstract

Business performance management within regenerative enterprises enables tracking and evaluating the impact of their activities on ecological systems, communities, and economic structures. Unlike traditional business performance management, which primarily emphasizes financial performance, regenerative business performance management includes metrics that assess environmental restoration, resource efficiency, and social well-being. Understanding how to manage business performance in a regenerative context is crucial for enterprises striving to contribute meaningfully to sustainable development and the circular economy. This paper seeks to explore the business performance management processes that facilitate the transition to regenerative business models, focusing on how businesses can plan, measure, analyze, and improve their regenerative business performance. By synthesizing insights from recent literature and empirical studies, this paper proposes a comprehensive framework for regenerative business performance, offering actionable strategies and practices for businesses seeking to align their operations with regenerative principles.

Keywords: *regenerative enterprise, regenerative business, regenerative business model, regenerative principles, business performance management*

JEL classification: *M21, Q56*

¹ bojan.krstic@eknfak.ni.ac.rs, ORCID ID 0000-0003-4597-6819

² ljiljana.bonic@ekonomski.rs, ORCID ID 0000-0003-3877-8400

³ milica.jovanovic@eknfak.ni.ac.rs, ORCID ID 0000-0002-6410-0938

⁴ tamara.radjenovic@zrnrfak.ni.ac.rs, ORCID ID 0000-0003-1632-7772

КЉУЧНИ АСПЕКТИ И ДЕТЕРМИНАНТЕ ПРОЦЕСА УПРАВЉАЊА ПОСЛОВНИМ ПЕРФОРМАНСАМА У РЕГЕНЕРАТИВНИМ ПРЕДУЗЕЋИМА

Апстракт

Управљање пословним перформансама у регенеративним предузећима омогућава им да прате и процене утицај својих активности на еколошке системе, заједнице и економске структуре. За разлику од традиционалног приступа управљању перформансама, које првенствено наглашава финансијске перформансе, управљање регенеративним перформансама укључује индикаторе на основу којих се процењује допринос обнови животне средине, ефикасности употребе ресурса и друштвеном благостању. Разумевање начина управљања перформансама у регенеративном контексту је кључно за предузећа која настоје да значајно допринесу одрживом развоју и циркуларној економији. Рад настоји да истражи процесе управљања перформансама који олакшавају прелазак на регенеративне пословне modele, фокусирајући се на то како предузећа могу планирати, мерити, анализирати и побољшати своје регенеративне перформансе. Свеобухватном анализом новије литературе из ове области и емпијских студија, рад предлаже концептуални оквир за регенеративне пословне перформансе, нудећи стратегије и праксе које се могу применити за предузећа која желе да ускладе своје пословање са регенеративним принципима.

Кључне речи: *регенеративно предузеће, регенеративни бизнис, регенеративни пословни модел, регенеративни принципи, управљање пословним перформансама*

Introduction

In recent years, the traditional approach to business has been challenged by the need for greater environmental and social responsibility. The emergence of the regenerative economy marks a transformative change in the way businesses understand their relationship with the environment and society. Unlike traditional sustainability, which primarily focuses on minimizing harm, a regenerative economy advocates for the restoration and enhancement of natural systems, community well-being, and economic resilience (Antikainen & Valkokari, 2016; Andreucci et al., 2021). This shift has become particularly significant in light of escalating environmental degradation, social inequalities, and the need to build resilience against climate change (Chhabra, 2023). The regenerative economy provides a compelling vision for how businesses can thrive while fostering broader societal and ecological health, yet achieving such outcomes requires a sophisticated and adaptive performance management system (East, 2020; Konietzko et al., 2023).

Regenerative enterprises represent a shift towards a business model that actively contributes to the restoration of ecosystems, the promotion of social equity, and the creation of positive, long-term impacts for society (Aoustin, 2023; Buckley, 2022; Jovanović Vujatović

et al., 2024). This business model is rooted in principles that go beyond sustainability, with an emphasis on regeneration - actively improving environmental and societal conditions through business practices (Andreucci et al., 2021).

Performance management in regenerative enterprises goes beyond traditional financial performance metrics (Tàbara, 2023; Gervais et al., 2024). It incorporates a holistic view that integrates Triple Bottom Line – environmental, social, and economic factors – while prioritizing regeneration over sustainability (Bojović, 2011). In this context, performance management in regenerative enterprises is not solely about monitoring profits and other financial performances, but about assessing an enterprise's capacity to contribute to long-term ecological restoration, social equity, and economic resilience (Hahn & Tampe, 2021).

1. Sustainable vs. regenerative business

The distinction between sustainable and regenerative businesses is important, especially in the context of evolving economic and environmental challenges. Key differences of those businesses are the following (Lyle, 1996; Du Plessis, 2012; Rhodes, 2015; Wahl, 2019; Gibbons, 2020; Marković et al., 2020; Ibrahim & Ahmed, 2022; Haar, 2024):

1. *Fundamental goals and mindset.* - The primary goal of a sustainable business is to neutralize negative impacts on the environment and society. In other words, it seeks to function in a way that meets the needs of the present generations without limiting the ability of future ones to meet their own needs. The emphasis is on stability and maintaining balance within the system. In contrast, a regenerative business goes beyond just minimizing harm; its goal is to restore, renew, and regenerate ecosystems, societies, and economies. A regenerative approach focuses on positive impact - not just sustaining the status quo, but improving it. Regenerative businesses seek to revitalize natural systems, increase biodiversity, rebuild communities, and support the well-being of both people and the planet. It is about creating a net positive impact that actively contributes to the long-term flourishing of ecosystems and societies.

2. *Environmental approach: avoiding harm vs. restoring health.* - In a sustainable business, the focus is on eco-efficiency. It means using resources wisely, reducing waste, and minimizing environmental damage. The aim is to ensure the business does not exceed the planet's carrying capacity. For example, companies may adopt energy-efficient technologies, minimize waste, or shift to renewable energy sources, but the ultimate focus is on not contributing to environmental degradation. Instead of focusing on minimizing damage, a regenerative business strives to improve ecological systems - for example, restoring degraded landscapes, enhancing soil health, or fostering biodiversity through its operations.

3. *Profit and value creation.* - In a sustainable business model, value creation is typically focused on long-term financial performance while considering environmental and social impact. While profit is important, the sustainable business primarily focuses on balancing environmental and social performance with financial profitability. A regenerative business model views value creation as a much broader concept that includes environmental, social, and economic prosperity. The emphasis is on co-creating value for all stakeholders, including nature and future generations. Profit in a regenerative

business is still important, but it is understood as part of a broader system where financial success is directly tied to positive environmental impact, social equity, and community well-being.

4. Business strategy and operations. - Sustainable business practices often follow - reduce, reuse, recycle idea. Businesses focus on improving the efficiency of their operations to reduce carbon footprint, waste, and resource consumption. These businesses are often more reactive, responding to environmental challenges through compliance, innovation for efficiency, and meeting sustainability criteria set by certifications or regulations. Regenerative business models take a more proactive approach, innovating to transform systems and create positive feedback loops that restore and regenerate the environment, economy, and society. Instead of merely reducing harm, regenerative enterprises aim to create ecosystems where their activities actively improve conditions over time.

5. Human and social impact. - Social sustainability in sustainable business focuses on ensuring that human rights, fair labor practices, and community development are prioritized. Sustainable businesses often aim to reduce inequality and ensure fair treatment for workers and stakeholders. However, the scope is often limited to mitigating negative social impacts (e.g., improving working conditions or supporting local communities). Regenerative business goes a step further by seeking to revitalize communities and build resilience at the local and global levels. It actively works to restore social systems, promote equity, and empower people. This approach embraces the idea that businesses can play an integral role in healing social structures, fostering collaboration, and increasing community well-being through initiatives like fair trade, local empowerment, and educational initiatives.

6. Longevity and resilience. - Sustainability is about maintaining balance over time, ensuring that the enterprise can thrive while minimizing its negative impacts. It is about reducing risks (e.g., climate risks, supply chain disruptions) and securing long-term viability by adhering to environmentally responsible practices. Regenerative businesses focus on building resilience in the face of complex, systemic challenges. Their approach to longevity is based on creating adaptable, flexible systems that can thrive in ever-changing conditions. Instead of just surviving, they aim to flourish within regenerative economic cycles.

Summarized key differences between sustainable business and regenerative business are presented in Table 1.

Table 1. Sustainable business vs. regenerative business

<i>Aspect</i>	<i>Sustainable business</i>	<i>Regenerative business</i>
Primary goal	Minimize harm and maintain balance	Restore, renew, and regenerate ecosystems, economies, and societies
Environmental focus	Eco-efficiency, reducing resource consumption, and waste	Creating closed-loop systems and revitalizing ecosystems
Profit model	Profit with consideration for environmental and social impact	Profit integrated with regeneration and societal impact
Approach to systems	Reactive, focused on reducing harm	Proactive, focused on systemic transformation and positive feedback loops

<i>Aspect</i>	<i>Sustainable business</i>	<i>Regenerative business</i>
<i>Social impact</i>	Reduce inequality, support fair labor practices	Revitalize communities, co-create value with stakeholders
<i>Business strategy</i>	Efficiency improvements, compliance with sustainability standards	Holistic redesign of business practices for restorative impact

Source: Authors

2. Principles of regenerative enterprises

The key principles on which the operation of a regenerative enterprise is based can be systematized as follows (Fath et al., 2019; Caldera et al., 2022; Konietzko et al., 2023; Vilar & Perelló, 2023; Drupsteen & Wakkee, 2024; Gervais et al., 2024; Seefeld, 2024):

1) Systems thinking

- Holistic perspective - Regenerative enterprises view business as an interconnected part of a larger ecological and social system. Instead of isolating individual elements, they consider the entire value chain and ecosystem in which they operate.
- Interconnectedness - They understand that all parts of a system influence one another. By considering feedback loops (both positive and negative), regenerative businesses can design operations that strengthen rather than deplete ecosystems and communities.
- Long-term vision - It discourages short-term decision-making focused solely on profits and instead encourages investments in regenerative practices that will pay off over time.

2) Regenerative design and innovation

- Closed-loop systems - Regenerative enterprises focus on creating circular systems that eliminate waste. They design products and services to be reused, repurposed, or composted. This contrasts with traditional linear models, where products are made, used, and discarded.
- Cradle-to-cradle design - Building on the cradle-to-cradle philosophy, regenerative businesses ensure that materials used in their products can be safely reintegrated into natural systems or remade into new products at the end of their life cycle.
- Innovative solutions - Regenerative businesses continuously innovate not just for profit, but for restoration.

3) Ecosystem restoration

- Restoring natural capital - This principle focuses on natural regeneration through processes such as regenerative agriculture, reforestation, and soil revitalization.
- Positive ecological impact - Rather than just reducing harm (as in traditional sustainability), regenerative enterprises aim to improve the health of the environment.
- Sustainability in production and supply chains - Regenerative enterprises invest in supply chains that support environmental health, using sustainably sourced

materials, energy-efficient production methods, and low-impact logistics that contribute positively to ecological restoration.

4) Social regeneration and equity

- Creating social value - Regenerative businesses seek to create not just financial value but also social value. This might involve empowering local economies, addressing income inequality, and investing in education and workforce development.
- Equity and justice - A core principle of regenerative enterprises is the belief in social equity. They are committed to addressing systemic inequalities such as poverty, gender disparity, and discrimination. This often means adopting policies that promote fair wages, diversity and inclusion, and ethical labor practices.
- Community engagement - This may include supporting local initiatives, fostering local entrepreneurship, or providing access to services and resources that empower people.

5) Economic regeneration

- Value beyond profit - Regenerative businesses redefine value by measuring success using metrics that consider social, environmental, and economic outcomes.
- Building resilient economies - They work to build resilient local and global economies by encouraging business models that distribute wealth more equitably, promote cooperation over competition, and create shared prosperity. This can mean investing in local economies, supporting small and medium-sized enterprises, and fostering cooperative business models.
- Long-term viability - Regenerative enterprises focus on long-term economic stability and health, ensuring that their business models are adaptable, future-proof, and resilient to environmental and societal changes.

6) Adaptive and resilient leadership

- Adaptability - Regenerative enterprises are not rigid in their approaches. They embrace flexibility, innovation, and adaptive problem-solving to meet changing circumstances.
- Leadership with purpose - Regenerative leaders are those who guide their enterprises with a long-term vision, focusing on purpose and impact rather than just financial returns. They inspire collective action and collaboration among employees, customers, and communities, all while maintaining a commitment to social and ecological justice.
- Collaborative decision-making - Instead of top-down management, regenerative businesses encourage collaborative decision-making that includes diverse perspectives.

7) Transparency and accountability

- Open communication - Regenerative businesses are transparent in their operations, sharing information about their environmental and social impacts, financial performance, and the challenges they face. This openness helps build trust with all stakeholders.
- Third-party certifications - To ensure accountability, regenerative enterprises

often seek certifications that verify their commitment to ethical, social, and environmental principles.

- Continuous improvement - Regenerative enterprises are committed to continuous improvement in all aspects, learning from both their successes and shortcomings.

8) *Purpose-driven mission*

- Holistic impact - Regenerative businesses are driven by a sense of purpose that transcends just making profits. Their mission is to make a positive difference—to contribute to the health of the environment, society, and future generations.
- Stakeholder capitalism - Rather than focusing solely on shareholder value, regenerative enterprises embrace stakeholder capitalism, where value is created for all stakeholders.

9) *Circular and restorative economy*

- Circular business models - Regenerative enterprises often adopt circular economy principles, which emphasize the continual reuse of resources, reducing waste, and ensuring that products and materials are reintegrated into the economy through recycling, repurposing, or remanufacturing.
- Restorative practices - Regenerative businesses prioritize restoring depleted resources, such as soil, water, and biodiversity. They actively seek to reverse the damage caused by past industrial practices and engage in activities that restore ecological systems and bring life back to degraded environments.

3. Key aspects of performance management of regenerative enterprises

Managing the performance of regenerative enterprises requires a dynamic, adaptive approach that aligns with the core principles of regeneration: restoration, renewal, and resilience. It is not just about managing financial performance but also ensuring that ecological, social, and economic goals are met in an integrated, sustainable way. A comprehensive approach to managing the performance of regenerative enterprises includes the following steps (Mason, 2017; Coleman et al., 2018; Yankovskaya et. al, 2022; Pavez et al., 2022; Krstić, 2022; Oyefusi et al., 2024): 1) Establish clear regenerative goals and objectives, 2) Measuring performance of regenerative enterprises in the aim of their managing and directing, 3) Foster continuous monitoring and feedback loops, 4) Establish integrated management systems, 5) Engage and empower employees, and 6) Align partnerships and supply chains.

Before establishing the system for regenerative performance management, it is essential to define what regeneration means for the enterprise. It means setting ambitious but measurable regenerative goals. It includes steps to establish regenerative goals based on the following:

- a) *Long-term and short-term goals.* - Long-term regeneration targets could include carbon neutrality by a certain year, restoring biodiversity to specific areas, or achieving zero waste across the value chain. Short-term goals may focus on specific project milestones (e.g., planting a certain number of trees, reducing carbon emissions by a percentage in one year);

- b) *SMART goals.* – It includes specific, measurable, achievable, relevant, and time-bound criteria (Lawlor, 2012) for both ecological and social targets. This ensures that goals are actionable and progress can be tracked;
- c) *Stakeholder alignment.* – It is essential that goals are aligned with stakeholder interests, whether they are employees, customers, suppliers, or local communities. Regenerative enterprises often seek broad buy-in for their mission and involve stakeholders in co-creating objectives.

The second step highlights a performance dashboard that covers multiple dimensions of its impact - economic (financial), environmental (ecological), social, and governance (Krstić, 2022, p. 78). The dashboard allows managers to track progress and make informed decisions. Key components could include: a) Economic performance metrics - Traditional financial metrics alongside regenerative economic metrics like local sourcing ratios, job creation in local communities, and financial resilience against environmental risks; b) Environmental (ecological) performance metrics - Track environmental impacts such as carbon footprint, water usage, waste reduction, and biodiversity restoration; c) Social impact metrics - Measure social outcomes such as community well-being, fair wages, employee satisfaction, and stakeholder engagement; d) Governance metrics - Measure transparency, stakeholder involvement, ethical business practices, and governance structures (e.g., board diversity, decision-making processes, adherence to regenerative principles).

Regenerative enterprises should continuously monitor and assess their progress toward regeneration goals (Krstić, 2022, p. 78-80). This involves (Xu et al., 2018): a) Regular impact assessments - Conduct periodic reviews of ecological, social, and financial performance. These could be quarterly or bi-annually, depending on the size and complexity of the organization; b) Employee and stakeholder feedback - Regular feedback from employees, customers, and communities is essential for understanding how well the business is living up to its regenerative claims. It includes surveys, focus groups, and community meetings as a way to gather feedback and adjust strategy accordingly; c) Adaptation and agile management - Given the long-term, complex nature of regeneration, regenerative enterprises need the ability to adapt quickly to changing circumstances. This could include adopting an agile approach to project management, where goals are adjusted based on real-time data and feedback; d) Real-time data tracking - technologies like Internet of Things sensors, blockchain, and data analytics can provide real-time data on things like energy use, emissions, and waste. This allows for more informed decision-making and quicker adjustments.

The core operations of regenerative enterprises often span multiple sectors/industries - agriculture, manufacturing, technology, finance, etc. An integrated management system ensures all aspects of the business are aligned with regenerative values. This could involve: a) Sustainability management systems - Establish clear frameworks for environmental and social management. This could include formal certifications such as ISO 14001 (environmental management) or ISO 26000 (social responsibility), which provide guidelines for managing sustainability impacts (Esquer-Peralta et al., 2018, Krstić, 2022); b) Circular economy models - Implementing a circular economy model within the business ensures that products and materials are reused, recycled, and regenerated. A closed-loop system can help manage waste and reduce environmental impact. Tools like the Cradle to Cradle framework or Life Cycle Assessment are useful to assess circularity (Bjørn & Hauschild, 2018); c) Integrated financial and impact reporting - Frameworks like Integrated Reporting or Sustainability Accounting

Standards Board guidelines to combine financial performance with environmental, social, and governance factors (Shoaf et al., 2018). This allows businesses to have a unified view of their financial and impact performance.

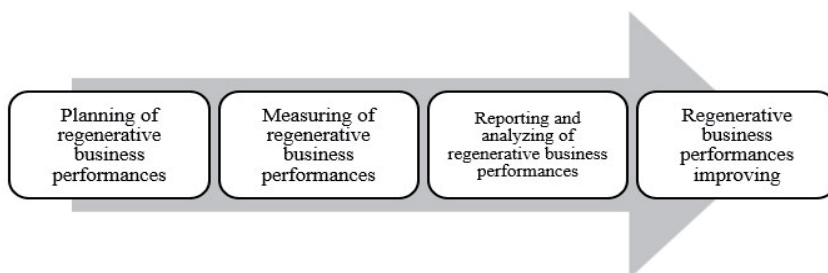
Regenerative enterprises rely on a culture of empowerment, collaboration, and shared vision. To manage performance effectively, it is important to provide the following: a) Inclusive decision-making - Involve employees at all levels in the decision-making process. This fosters ownership and commitment to regenerative goals; b) Employee training and capacity building - Regularly invest in training programs that equip employees with the knowledge and tools to contribute to the enterprise's regenerative objectives. This could involve sustainability education, leadership training, or even personal well-being initiatives; c) Recognition and incentives - Align incentives with regenerative goals. For example, bonus structures or rewards could be tied to both financial and sustainability performance targets, such as energy savings, social impact achievements, or meeting regenerative milestones (Krstić, 2022, p. 127).

One of the defining characteristics of regenerative enterprises is their interconnectedness with external stakeholders. Managing performance must include collaboration with partners who share regenerative values. To align partnerships and supply chains it is important the following: a) Supply chain auditing and certification - Regularly assess the environmental and social practices of suppliers. Encourage or require sustainability certifications (e.g., Fair Trade, B Corp, or ISO 14001) to ensure that suppliers align with the company's regenerative principles (Initiative et al., 2010); b) Collaborative networks - Participate in industry groups, consortiums, or multi-stakeholder initiatives focused on sustainability or regeneration. Collaborative efforts often lead to shared resources, knowledge, and best practices that can improve overall performance; c) Community engagement - Work closely with local communities, NGOs, and other organizations to ensure your business is contributing to regional regeneration efforts. This might include joint projects for ecosystem restoration, community development, or climate adaptation (Howard et al., 2019).

4. Main phases of business performance management in regenerative enterprises

In general, the process of performance management in regenerative enterprises can be divided into four main phases (Figure 1).

Figure 1. Four main phases of regenerative business performance management



Source: According to Krstić (2022, p. 47)

4.1. Regenerative business performance planning

Effective planning is at the heart of regenerative business performance management. The planning phase involves setting clear, long-term goals that align with the principles of regeneration (Krstić, 2022, p. 53). Unlike traditional business models that focus primarily on profit maximization, regenerative enterprises aim to create value that extends beyond financial returns, fostering positive environmental and social outcomes. Goal-setting for regeneration should reflect not only ecological and social priorities but also a company's core values and mission. Regenerative businesses adopt triple-bottom-line goals (economic, environmental, and social), ensuring that their strategies create positive impacts across all domains. For instance, an enterprise may set specific targets for carbon sequestration, biodiversity restoration, and community empowerment, while also maintaining financial profitability (Hahn & Tampe, 2021; Gervais et al., 2024).

A key part of this planning process is the development of regenerative business models that promote closed-loop systems, reduce dependency on finite resources, and prioritize ecosystem health (Antikainen & Valkokari, 2016). For example, businesses can adopt Cradle-to-Cradle design principles, ensuring that every product or service is designed for end-of-life disassembly and reuse, rather than disposal (Braungart & McDonough, 2009). The goal is to design business processes that regenerate rather than deplete resources.

Moreover, stakeholder engagement is critical during the planning phase. Regenerative businesses must ensure that their objectives align with the needs and expectations of local communities, employees, customers, and other stakeholders. This requires ongoing dialogue and collaboration to co-create value that benefits all parties (Chhabra, 2023). By involving stakeholders early in the process, regenerative enterprises can ensure that their business models reflect the principles of equity and justice, ensuring that the benefits of regeneration are shared equitably (Hope & Laasch, 2024).

A comprehensive planning process also includes risk management strategies. Since regenerative enterprises often operate in complex, uncertain environments, businesses must account for environmental and social risks, as well as potential economic shocks. Adaptive management approaches are critical here, enabling businesses to adjust their strategies based on real-time feedback from their operations and the broader environment (Tàbara, 2023). This adaptive approach ensures that regenerative businesses remain resilient in the face of changing market conditions and environmental uncertainties.

Planning the strategic and operational performance of a regenerative enterprise involves creating a roadmap that aligns the enterprise's long-term vision with actionable, short and medium-term goals. This requires integrating sustainability, regeneration, and profitability into a cohesive strategy and operational framework. Below is a step-by-step guide on how to plan and optimize both the strategic and operational performance of a regenerative enterprise (Hardman, 2010; Wahl, 2016; Kamrowska-Zaluska & Obracht-Prondzyńska, 2018; Hahn & Tampe, 2021; Allen, 2021; Krstić, 2022; Caldera et al., 2022; Candelarie, 2023; Das & Bocken, 2024; Wexler et al., 2024; Gervais et al., 2024):

- 1) *Develop a clear and compelling vision.* - The first step in planning both strategic and operational performance is to define a compelling regenerative vision (Krstić, 2022). This vision should serve as the foundation for all future decisions and actions. Purpose-driven mission should be formulated. Mission statement should focus on the business's core purpose beyond profit, outlining

its commitment to regenerating ecosystems, communities, and local economies. Regenerative framework should be a base for a vision. Vision should also provide a roadmap for regeneration. Alignment regenerative mission with stakeholders should ensure that regenerative mission of an enterprise aligns with the needs and aspirations of employees, customers, investors, suppliers, and communities.

- 2) *Conduct a deep strategic assessment.* - Before building your strategy, perform a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) that includes regenerative dimensions of business. This will provide insights into the current state of business and help prioritize areas of improvement. For the purpose of strategic assessment should be used: a) Environmental audit - Assess how the enterprise currently impacts the environment. b) Social and economic audit - Review current impact on local communities, workers, and broader society. c) Financial health - Review current financial performance.
- 3) *Set long-term strategic goals (5-10 years).* - Strategic goals should reflect long-term regenerative vision and should be aligned with environmental, social, and economic regeneration. The goals should be divided into key focus areas: a) Environmental regeneration - Long-term environmental targets such as reducing carbon emissions by a certain percentage, restoring ecosystems, or achieving zero waste; b) Social impact - Social outcomes the enterprise wants to achieve, such as creating a certain number of local jobs, increasing employee satisfaction, or enhancing community resilience; d) Economic performance - Economic goals like revenue growth, profitability, and financial sustainability, but with a long-term perspective that balances profit with regeneration.
- 4) *Assess and adjust strategy.* - Performance management requires a proactive strategy that evolves (Krstić, 2022). It includes steps for strategic management: a) Scenario planning - Assess potential risks and opportunities related to climate change, market shifts, regulatory changes, and societal needs; b) Benchmarking and adoption of best practices - Regularly benchmark the enterprise's performance against industry standards or competitors; c) Strategic pivoting - For instance, if carbon offsetting becomes less viable, businesses may shift toward regenerative practices like carbon sequestration in soils or forests, or scale new solutions such as bio-based materials.
- 5) *Define key strategic initiatives.* - To achieve long-term goals, enterprises should identify strategic initiatives that will drive success (Krstić, 2022). These initiatives should be regenerative and transformational, pushing the business to both grow and regenerate, and include the following: a) Sustainable business model innovation; b) Partnerships and collaborations; c) Technology Integration; and d) Impact Investment Strategy.
- 6) *Establish operational goals and metrics (1-3 years).* - Once strategic goals are set, break them down into operational goals. These are shorter-term, more tactical goals that will help the enterprise to achieve the overarching strategic objectives (Krstić, 2022). Key operational areas to focus on are the following: a) Resource efficiency - Implement processes to reduce resource use (water,

- energy, raw materials), minimize waste, and improve energy efficiency; b) Supply chain regeneration - Create a regenerative supply chain that focuses on sourcing sustainable raw materials, working with ethical suppliers, and promoting regenerative agricultural or forest management practices; c) Employee engagement and well-being: Develop operational plans for employee engagement, mental and physical well-being, and fair labor practices; d) Product and service innovation - Develop new products or services that are regenerative, such as products with minimal environmental footprints or services that actively restore ecosystems. Operational key performance indicators (KPIs) could be the following: carbon footprint (reductions in emissions, energy efficiency improvements, and other carbon-related metrics); waste and resource metrics (reductions in water, materials, and energy consumption, as well as waste diversion and recycling); social impact key performance indicators (worker satisfaction, community investment, and inclusivity); Financial metrics (revenue growth, profitability, and cost reductions from sustainability efforts).
- 7) *Build a regenerative culture.* - The performance of a regenerative enterprise depends not just on systems and processes but also on a culture that embraces regeneration. This culture should be built into, both strategic and operational planning (Krstić, 2022), as well as: a) Regenerative leadership - Develop leaders who understand and embody the regenerative principles. They should be role models in promoting sustainability, social justice, and regeneration in their decision-making; b) Employee involvement - to participate in regenerative initiatives, whether it is through innovation hubs, idea generation workshops, or volunteer opportunities; c) Regenerative mindset training - Train all levels of the organization on regenerative practices and sustainable business models. Below are key values integral to a regenerative organizational culture (Table 2).
- 8) *Continuous improvement and adaptation.* - A regenerative enterprise must be agile, responsive, and open to evolution. The performance of regenerative business should be continually assessed against changing market conditions, new technologies, and emerging sustainability trends. Staying ahead of technological and ecological trends is critical to long-term success.

Table 2. Key values of regenerative organizational culture

<i>Systems thinking</i>
• Value of regenerative organizational culture: Embraces interconnectedness and complexity within ecological, social, and economic systems. • Explanation: A regenerative culture sees the organization as a living system that is interdependent with its surroundings. Decisions are made with an understanding of their ripple effects across multiple systems, promoting systemic health and long-term benefits. • Application: Businesses integrate their operations with larger ecological and community networks, ensuring their activities contribute to the regeneration of the environment and society.
<i>Purpose-driven mission</i>
• Value of regenerative organizational culture: Centers around a collective commitment to regeneration. • Explanation: The enterprise's mission transcends profit-making to encompass ecological restoration, social equity, and economic resilience. • Application: Employees and stakeholders align their efforts with the organization's regenerative goals, fostering a shared sense of purpose.

<i>Collaboration and inclusivity</i>
• Value of regenerative organizational culture: Promotes co-creation and shared ownership. • Explanation: Regenerative enterprises value input from diverse stakeholders, including employees, communities, and partners. This inclusivity ensures that the organization benefits all stakeholders equitably. • Application: Practices like participatory decision-making and stakeholder engagement sessions reflect this value, ensuring the needs and voices of all parties are respected.
<i>Adaptability and continuous learning</i>
• Value of regenerative organizational culture: Encourages resilience and agility in the face of change. • Explanation: A regenerative culture recognizes that the environment, markets, and communities are dynamic. Continuous learning, feedback integration, and adaptive strategies are prioritized. • Application: Regular reviews of performance metrics and feedback loops enable the organization to refine its practices, innovate, and respond effectively to new challenges.
<i>Environmental stewardship</i>
• Value of regenerative organizational culture: Embodies a responsibility to regenerate natural systems. • Explanation: Protecting and enhancing the environment is central to decision-making. Regenerative enterprises prioritize reducing harm and actively contribute to ecosystem restoration. • Application: Examples include adopting circular economy principles, implementing zero-waste policies, and engaging in reforestation or soil regeneration initiatives.
<i>Social equity and justice</i>
• Value of regenerative organizational culture: Focuses on creating fair and inclusive opportunities for all. • Explanation: Regenerative organizations aim to uplift communities, address systemic inequalities, and ensure equitable distribution of benefits. • Application: Initiatives like fair labor practices, living wages, community investment programs, and partnerships with marginalized groups exemplify this value.
<i>Transparency and accountability</i>
• Value of regenerative organizational culture: Builds trust through openness and ethical practices. • Explanation: Regenerative enterprises operate with honesty and provide clear reporting on their social, environmental, and economic impacts. • Application: Regular publication of impact reports, third-party audits, and certifications (e.g., B Corp, Fair Trade) uphold this value.
<i>Long-term thinking</i>
• Value of regenerative organizational culture: Balances immediate needs with future generations' well-being. • Explanation: Decisions are guided by their potential to contribute to long-term resilience and systemic health, rather than short-term gains. • Application: Investments in renewable energy, biodiversity, and community development programs are planned with decades-long horizons.
<i>Empowerment and employee engagement</i>
• Value of regenerative organizational culture: Nurtures a sense of ownership and agency among employees. • Explanation: Employees are encouraged to participate actively in regenerative initiatives and are provided with the resources and autonomy to innovate. • Application: Training programs on regenerative principles, collaborative leadership models, and recognition for contributions to regeneration foster this value.
<i>Ethical leadership</i>
• Value of regenerative organizational culture: Demonstrates responsibility and vision at all organizational levels. • Explanation: Leaders embody regenerative principles, inspiring and guiding the organization toward systemic impact. • Application: Ethical leadership is reflected in transparent governance structures, diversity on boards, and decision-making that prioritizes regenerative goals over profits.

Source: According to Wahl (2016)

4.2. Regenerative business performance measuring

The measurement of regenerative business performance goes far beyond traditional financial metrics. To assess an enterprise's regenerative impact, it is essential to evaluate multiple dimensions of performance: ecological, social, and economic (Dake, 2018). These dimensions require a diverse set of indicators and measurement tools that can capture the complexity of regenerative outcomes.

Ecological metrics are perhaps the most straightforward in the context of regenerative performance, as they directly measure the influence of business operation on the environment (Krstić, 2022, p. 122). These indicators might include carbon footprint, water use efficiency, waste reduction, and energy consumption (Hope & Laasch, 2024). However, regenerative businesses need to go further by measuring their contributions to ecosystem restoration and biodiversity conservation (Fath et al., 2019). For example, businesses can track the restoration of degraded ecosystems, the creation of wildlife corridors, or the implementation of regenerative agricultural practices on company-owned land (Ryan et al., 2023). Social metrics focus on the impact of business activities on communities and social systems. This might include measuring Social Return on Investment (Then et al., 2017), which quantifies the social value created through community engagement, job creation, education, and health improvements (Caldera et al., 2022). Regenerative businesses should also measure the equity and inclusivity of their operations, ensuring that marginalized communities have access to the benefits created by the enterprise (Chhabra, 2023). Economic performance in regenerative businesses can be assessed using traditional metrics like profit, profit margins, and profitability rates. However, the emphasis in regenerative business models is on long-term resilience rather than short-term profit maximization. Thus, businesses should also track financial sustainability through metrics that assess their capacity to weather economic fluctuations and continue to contribute positively to environmental and social regeneration (Brozovic, 2020). Tools such as Life Cycle Assessment (Curran, 2013), Environmental Impact Assessments (Morris & Therivel, 2001), and Material Flow Analysis (Bringezu & Moriguchi, 2018) are essential in evaluating the environmental and social impacts of regenerative business models (Emanuelsson et al., 2021). These tools provide quantitative data that allow businesses to track their progress toward regenerative goals, identify areas for improvement, and communicate their impacts to stakeholders (Hope & Laasch, 2024).

Measuring the performance of regenerative enterprises - businesses that aim to restore, renew, and regenerate natural, social, and economic systems - can be challenging due to the complexity and interconnectedness of the goals they pursue. However, it is not only possible but essential to evaluate regenerative enterprises' impact across a variety of dimensions. Namely, regenerative performance can be assessed through the following dimensions and indicators:

- *Ecological (environmental) regenerative performance* - 1. Carbon footprint that measures reductions in greenhouse gas emissions, energy consumption, and carbon sequestration; 2. Biodiversity indices assess the health of ecosystems through indicators like species diversity, the presence of endangered species, or habitat restoration (e.g., restored wetlands, reforestation efforts); 3. Soil health and water quality that monitor soil regeneration (e.g., soil carbon, soil organic matter, or water retention) and the quality of water resources (e.g., reduction of runoff, cleaner water); 4. Waste and circular economy metrics that track waste

reduction, material circularity, and closed-loop systems, including the use of renewable materials, repurposing, and zero waste initiatives; 5. Natural capital accounting determines the value of natural resources and ecosystems restored or preserved, including methodologies like the Natural Capital Protocol, which helps to measure, value, and account for natural capital impacts and dependencies (Coleman et al., 2018; Hein et al., 2020).

- *Social regenerative performance* - 1. Fair wages and labor practices monitor how well the business supports its employees, including living wages, fair working conditions, diversity, inclusion, and worker well-being; 2. Community engagement and development assess how the business engages with local communities and supports long-term development, such as providing education, healthcare, or infrastructure, and building resilience in the face of climate change; 3. Stakeholder equity measures the extent to which the business distributes its benefits across stakeholders - employees, suppliers, communities, customers, and shareholders; 4. Health and well-being metrics track improvements in health, education, and other social determinants of well-being in communities that the business impacts (Oyefusi, 2024).
- *Economic (financial and non-financial) regenerative performance* - 1. Profitability and financial health as traditional business metrics like revenue, profit margins, cost reductions, and cash flow, but assessed in the context of regenerative goals; 2. Local economic impact assessing the economic contribution to local economies, such as job creation, local sourcing of materials, and fostering economic resilience through decentralized economic models (e.g., cooperatives, local production); 3. Impact on business ecosystem measuring how the enterprise's business model supports the broader business ecosystem, including suppliers, customers, and partners, in regenerative practices; 4. Sustainable innovation tracks investments in sustainable technologies, business model innovations, and R&D that contribute to regeneration (Krstić, 2022, p. 80).
- *Cultural and organizational regeneration performance* - 1. Leadership and governance measure the effectiveness of leadership in fostering regenerative values, transparency, and participatory governance; 2. Employee empowerment and culture assess how much employees are empowered to take initiative, make decisions, and contribute to the regeneration mission; 3. Circular business model adoption examines how well the enterprise has adopted circularity in its operations, from supply chain to design processes; 4. Purpose alignment assesses how closely business strategies align with the regenerative purpose of the enterprise (Mahadevan, 2017).
- *Holistic performance measurement frameworks* - 1. Global Reporting Initiative (GRI) and GRI standards offer detailed reporting criteria for sustainability and regenerative practices (Krstić, 2022; Miao & Nduneseokwu, 2025), helping businesses measure and report on environmental, social, and governance (ESG) issues (Hedberg & Von Malmberg, 2003; Hope & Laasch, 2024); 2. Integrated reporting framework combines financial and non-financial reporting, integrating environmental, social, and governance factors with financial performance into a single narrative (De Villiers & Hsiao, 2017; Rezaee, 2025). This is particularly useful for regenerative enterprises that aim to show their value beyond financial outcomes.

Regenerative enterprises can use specialized tools to evaluate their impact in a structured way. Several frameworks can help in analyzing the regenerative performance of a business. Triple Bottom Line (TBL) provides a rigorous assessment of social and environmental impact. This certification provides a clear standard for regenerative business practices and can serve as a guide to measure performance in a regenerative context. TBL focuses on three pillars of sustainability: People (How does the business positively impact society - employees, customers, communities?), Planet (What is the business's environmental footprint, and how is it regenerating ecosystems?), and Profit (Is the business financially sustainable while achieving positive social and environmental outcomes?). When evaluating a regenerative business, enterprise looks at the ecological and social impacts alongside financial performance (Lee & Yoon, 2024). SROI (Social Return on Investment) is a framework used to assess and quantify the social and environmental impact of business activities in monetary terms. By comparing the social value generated with the resources invested, the enterprise can assess how effectively the business is creating social good and restoring ecosystems (Krstić, 2022). SROI is especially helpful for measuring non-financial outcomes, like health, well-being, and environmental regeneration (Then et al., 2017, Krstić, 2022). Life Cycle Assessment (LCA) evaluates the environmental impact of a product or service across its entire life cycle - from raw material extraction through production, use, and disposal. By using LCA, enterprises can identify key stages to reduce their environmental impact, helping to track regeneration efforts more precisely (Curran, 2013).

Measuring the performance of regenerative enterprises requires a multi-dimensional approach that goes beyond financial returns. It involves tracking ecological restoration, social and economic benefits, and ensuring that the business's internal practices align with regenerative principles. Tools like Triple Bottom Line, SROI, and LCA help integrate these metrics into a coherent system, enabling businesses to assess their holistic impact and make data-driven decisions that foster long-term sustainability.

4.3. Regenerative business performance reporting and analyzing

Once performance data is collected, the next step is to analyze and interpret the results to gain actionable insights. Regenerative businesses use systems thinking to interpret data in ways that acknowledge the interdependencies between ecological, social, and economic factors (Fath et al., 2019). By adopting a holistic analysis approach, businesses can uncover the impact of their actions on broader systems and identify opportunities for improvement (Gervais et al., 2024). Analyzing the performance of a regenerative enterprise involves measuring its success across multiple dimensions: environmental, social, and economic, alongside traditional business performance metrics. It involves several steps.

The first step refers to *gathering qualitative and quantitative data*. Quantitative data can be obtained by: a) Environmental metrics including data on emissions reductions, waste diversion, energy use, and carbon sequestration (LCA and Carbon Footprint Analysis can quantify the environmental impact); b) Social metrics including data on employee retention, community investment, health and safety, fair wages, and diversity can be gathered through employee surveys, community reports, and third-party audits; c) Economic metrics including financial performance data (revenue, profit margins, ROI) and economic resilience indicators (local job creation, revenue generated for local suppliers) which can be analyzed using standard accounting methods and financial analysis. On the other side, qualitative data are

obtained by: a) Stakeholder feedback, engaging stakeholders (e.g., employees, suppliers, community members) through surveys, interviews, or focus groups; b) Case studies and success stories as qualitative assessments of successful regenerative projects or initiatives within the enterprise can provide insight into the broader; c) Employee and community sentiment through qualitative measures such as storytelling, interviews, and testimonials can provide deep insights into the social and cultural impact of the enterprise (Emanuelsson et al., 2021).

The second step requires *impact assessment tools*, such as SROI, LCA, and Impact Management Project (IMP). IMP provides a framework to assess and manage impact performance. It is designed to help businesses understand their impact on people and the planet, using key metrics and standards to analyze outcomes (Curran, 2013; Then et al., 2017; Lee & Yoon, 2024).

The third step includes *benchmarking and comparative analysis*. Benchmarking involves comparing a regenerative enterprise's performance with that of other similar organizations, industry standards, or even best-in-class examples. This can help you assess how your enterprise is performing relative to its peers in terms of environmental sustainability (e.g., carbon footprint, waste management), social impact (e.g., community well-being, employee satisfaction), and economic resilience (e.g., financial performance, local sourcing). Industry reports, sustainability rankings, and certifications can be used for these purposes (Orsato et al., 2015).

After benchmarking, the enterprise should *evaluate the alignment with regenerative principles*. A regenerative enterprise must consistently assess whether its activities and operations align with regenerative principles. This means evaluating restorative practices (e.g., through reforestation, soil regeneration, or water restoration), social equity and justice: (such as fair wages, employee empowerment, and community development), and economic resilience (e.g., local suppliers, communities). This alignment can be assessed by conducting regular internal reviews, external audits, and stakeholder assessments. Additionally, engaging with thought leaders or experts in regenerative practices can provide valuable insights into alignment and progress.

Once performance is analyzed, it is important to *communicate the results* clearly and effectively to stakeholders. Integrated Reporting (IR) combines both financial and non-financial performance into a cohesive narrative, showing how business strategy leads to sustainable value creation over time. An IR report might cover (Miao & Nduneseokwu, 2025):

- Financial performance: revenue, costs, profit, profit margin and return on investment;
- Non-financial performance: environmental impact (e.g., carbon emissions, resource usage), social impact (e.g., community well-being, worker satisfaction), and governance (e.g., ethical sourcing, transparency);
- Forward-looking strategy: future goals for improving regenerative practices and strategies for resilience in the face of climate change or market disruptions.

Lastly, transparency is crucial for regenerative enterprises. Reporting not only builds trust with stakeholders but also ensures accountability for the progress of regeneration.

4.4. Regenerative business performance improving

Continuous performance improvement is a core principle in regenerative enterprises, as they aim not only to minimize negative impacts but also to enhance ecological and social outcomes over time (Hahn & Tampe, 2021). Regenerative businesses apply various approaches, such as lean management, design thinking, and adaptive management, to refine their operations and performance continually (Konietzko et al., 2023). These approaches are centered around the idea that businesses must remain flexible, learning from both successes and setbacks to improve their regenerative impact.

Regenerative enterprises embrace a culture of innovation and adaptation, using feedback from performance data to refine their strategies, products, and services (Tàbara, 2023). The principle of circular innovation plays a key role, where businesses not only optimize their existing processes but also explore novel ways of closing resource loops, reducing waste, and restoring ecosystems (Zucchella & Previtali, 2019).

Adaptive management is an iterative approach that emphasizes the importance of flexibility and responsiveness in decision-making (Ryan et al., 2023). This approach allows businesses to continuously adjust their strategies based on new data and evolving conditions, ensuring that regenerative goals remain relevant and achievable as circumstances change. By fostering a culture of innovation and responsiveness, regenerative enterprises are better positioned to navigate the complexities of the modern business landscape while contributing to the long-term health of the society.

Approaches such as lean management and design thinking are particularly effective in driving improvements. Lean principles reduce waste in all forms - whether material, energy, or time - while design thinking fosters innovation through empathy and stakeholder engagement (Siahaan et al., 2023). Lean management, in particular, encourages businesses to eliminate waste, improve efficiency, and reduce their resource consumption. By focusing on minimizing the use of non-renewable resources and improving resource recovery, businesses can significantly reduce their ecological footprint (Brozovic, 2020). Design thinking, on the other hand, promotes innovative problem-solving by focusing on human-centered design and addressing sustainability challenges creatively (Hardman, 2013).

Improving the performance of a regenerative enterprise involves taking strategic, operational, and cultural actions that enhance both short-term impact and long-term sustainability. Since regenerative businesses aim to restore and renew ecosystems, societies, and economies, improving performance requires innovation, continuous learning, and alignment across all areas of the business.

A comprehensive approach to improving the performance of a regenerative enterprise comprises the following (Roland & Landua, 2013; Gonzalez-Perez & Piedrahita-Carvajal, 2022):

- 1) *Set and refine clear, ambitious goals.* - Clear, measurable, and impactful goals will help guide efforts and provide motivation for continuous progress. SMART goals ensure that goals for environmental, social, and economic regeneration are Specific, Measurable, Achievable, Relevant, and Time-bound. In addition, it is important to prioritize the areas where the enterprise can make the most difference. Besides, a regenerative enterprise should align goals with stakeholders. This alignment will ensure greater buy-in and collective action.
- 2) *Improve resource efficiency and circularity.* - A key feature of regenerative

enterprises is reducing resource depletion while fostering regenerative processes. Moving towards circularity and increasing resource efficiency can enhance both environmental and financial performance. It is possible through adopting circular business models, optimizing energy and water use, and waste reduction and management.

- 3) *Innovate with regenerative products and services.* - Regenerative enterprises are often defined by their ability to offer products or services that restore, renew, and regenerate. Innovating in this area can significantly improve performance by increasing customer demand, expanding market reach, and contributing to ecological and social regeneration (e.g. sustainable product design, exploring new business models, collaborative innovation).
- 4) *Strengthen social impact and community engagement.* - Regenerative enterprises don't just restore the environment; they also strengthen communities and promote social equity. Improving social performance will help build stronger, more resilient relationships with stakeholders. It includes investing in local communities, fair labor practices, fostering stakeholder collaboration, and increasing social transparency.
- 5) *Enhance financial resilience and diversification.* - A regenerative enterprise must be financially sustainable to continue its work in restoration and regeneration. Improving financial resilience involves aligning profitability with regenerative objectives and diversifying income streams. It suggests the following: 1. Align profit with purpose (prioritizing long-term value over short-term profits, adopting pricing models that reflect the true environmental and social cost of goods and services, and reinvesting profits into regeneration initiatives), 2. Diversify revenue streams, 3. Access regenerative financing (regenerative finance options like impact investing, green bonds, or social impact bonds), 4. Measure Return on Regeneration Investment (RRI) (tracking the financial performance of regeneration projects).
- 6) *Leverage technology and innovation.* - Technology can play a critical role in driving regenerative change. By adopting new technologies and tools, the enterprise can increase efficiency, enhance regeneration efforts, and better track its progress. It means using digital tools for monitoring and reporting, adopting regenerative technologies, and automation for efficiency.
- 7) *Foster a regenerative corporate culture.* - The internal culture of a regenerative enterprise plays a key role in its success. By nurturing a culture of collaboration, innovation, and commitment to sustainability, employees will be more motivated to contribute to regenerative goals.
- 8) *Adopt a continuous improvement mindset.* - Regenerative enterprises are always evolving and improving. To stay ahead and keep improving, establish feedback loops and mechanisms for continuous learning. It includes regular impact reviews, engaging in peer learning, and iterative strategies.

Improving the performance of a regenerative enterprise requires a balanced focus on innovation, operational efficiency, social impact, and financial resilience. By setting clear goals, improving resource efficiency, fostering community engagement, leveraging technology, and maintaining a culture of continuous improvement, regenerative enterprises

can grow while staying true to their mission of regeneration. Strategic leadership, employee engagement, and adaptive practices will ensure that the enterprise remains on track to meet both its regenerative and business goals.

Conclusion

At the core of regenerative performance management lies regenerative economics - a framework that seeks to define business success in ways that promote the health of ecosystems and communities. Unlike traditional economics, which measures value largely in terms of financial profit, regenerative economics incorporates social and environmental returns, fostering the idea that real business success is realized when ecosystems and societies thrive. This paradigm integrates environmental performance, social impact, and financial health into a holistic model that seeks to balance all three dimensions.

The performance management process within regenerative enterprises is vital for ensuring that business practices contribute to the restoration and regeneration of ecosystems, communities, and economies. By effectively planning, measuring, analyzing, and improving performance, regenerative businesses can drive long-term, positive systemic change. This process requires the integration of multi-dimensional metrics that go beyond financial profit. As regenerative business models continue to evolve, it will be essential to develop and refine performance management frameworks that support continuous improvement and the emergence of positive tipping points in sustainability. Future research could explore new methodologies for integrating regenerative principles into traditional performance management systems, while also considering how technology and innovation can accelerate the transition toward a regenerative economy. Moreover, performance management in regenerative enterprises requires the integration of new metrics that capture non-financial outcomes. These metrics include measures of ecological health, such as biodiversity restoration, carbon sequestration, and resource regeneration, as well as social metrics such as community well-being, labor practices, and stakeholder engagement. These metrics allow businesses to assess the broader, long-term impact of their activities, while also promoting continuous learning and adaptation.

The regenerative business paradigm is still evolving, but it holds the potential to reshape entire industries by encouraging restorative practices at every level of business operations. As more enterprises adopt regenerative principles, they will not only create value for themselves but they also play a key role in solving some of the most difficult challenges facing humanity, such as resource depletion, social inequality and biodiversity loss. By embracing regeneration, businesses can redefine their purpose/missions, improve the health of the planet, and ensure that future generations inherit a world that is not only sustainable but also abundant, thriving, and just.

Acknowledgement:

This work is the result of research based on the obligations under the Agreement in 2024 (No. 451-03-65/2024-03), concluded between Ministry of Science, Technological Development and Innovation of the Republic of Serbia and Faculty of Economics, University of Niš. This work was supported by the European Union's Horizon Europe research and innovation programme under Grant number 101136834.

Reference

- Allen, K. E. (2021). Leading Regenerative Systems: Evolving the Whole Instead of a Part. In *Reimagining Leadership on the Commons: Shifting the Paradigm for a More Ethical, Equitable, and Just World* (pp. 59-68). Emerald Publishing Limited.
- Andreucci, M. B., Marvuglia, A., Baltov, M., & Hansen, P. (2021). *Rethinking sustainability towards a regenerative economy*. Springer Nature.
- Antikainen, M., & Valkokari, K. (2016). A framework for sustainable circular business model innovation. *Technology Innovation Management Review*, 6(7), 5-12.
- Aoustin, E. (2023). Regenerative leadership: what it takes to transform business into a force for good. Field Actions Science Reports. *The journal of field actions*, (Special Issue 25), 92-97.
- Bjørn, A., & Hauschild, M. Z. (2018). Cradle to Cradle and LCA. *Life cycle assessment: theory and practice*, 605-631.
- Bojović, M. V. (2011). Održivi razvoj - višestruko razumevanje pojma i nedvosmislena potreba za konceptom. *Ekonomске teme*, 2, 175-192.
- Bringezu, S., & Moriguchi, Y. (2018). Material flow analysis. In *Green accounting* (pp. 149-166). Routledge.
- Buckley, M. (2022). Regeneration: A World that Works for Everyone!. In *The Global Impact of Social Innovation: Disrupting Old Models and Patterns* (pp. 145-155). Cham: Springer International Publishing.
- Caldera, S., Hayes, S., Dawes, L., & Desha, C. (2022). Moving beyond business as usual toward regenerative business practice in small and medium-sized enterprises. *Frontiers in Sustainability*, 3, 799359.
- Candelarie, D. (2023). Regenerative Leadership. In *Leading for Equity in Uncertain Times: A Regenerative Process* (pp. 5-15). Emerald Publishing Limited.
- Chhabra, E. (2023). *Working to Restore: Harnessing the Power of Regenerative Business to Heal the World*. Beacon Press.
- Coleman, S., Touchie, M. F., Robinson, J. B., & Peters, T. (2018). Rethinking performance gaps: A regenerative sustainability approach to built environment performance assessment. *Sustainability*, 10(12), 4829.
- Curran, M. A. (2013). Life cycle assessment: a review of the methodology and its application to sustainability. *Current Opinion in Chemical Engineering*, 2(3), 273-277.
- Dake, A. (2018). *Thriving beyond surviving: A regenerative business framework to co-create significant economic, social, and environmental value for the world*. Benedictine University.
- Das, A., & Bocken, N. (2024). Regenerative business strategies: A database and typology to inspire business experimentation towards sustainability. *Sustainable Production and Consumption*, 49, 529-544.
- De Villiers, C., & Hsiao, P. C. K. (2017). Integrated reporting. In *Sustainability accounting and integrated reporting* (pp. 13-24). Routledge.

- Drupsteen, L., & Wakkee, I. (2024). Exploring Characteristics of Regenerative Business Models through a Delphi-Inspired Approach. *Sustainability*, 16(7), 3062.
- Du Plessis, C. (2012). Towards a regenerative paradigm for the built environment. *Building Research & Information*, 40(1), 7-22.
- East, M. (2020). The transition from sustainable to regenerative development. *Ecocycles*, 6(1), 106-109.
- Emanuelsson, E. A. C., Charles, A., & Shivaprasad, P. (2021). A regenerative business model with flexible, modular and scalable processes in a post-covid era: The case of the spinning mesh disc reactor (smdr). *Sustainability*, 13(12), 6944.
- Esquer-Peralta, J., Velazquez, L., & Munguia, N. (2008). Perceptions of core elements for sustainability management systems (SMS). *Management Decision*, 46(7), 1027-1038.
- Fath, B. D., Fiscus, D. A., Goerner, S. J., Berea, A., & Ulanowicz, R. E. (2019). Measuring regenerative economics: 10 principles and measures undergirding systemic economic health. *Global Transitions*, 1, 15-27.
- Gervais, F., Coulombel, P., & Okeke, O. J. P. (2024). Implementation of regenerative business models in transitioning companies—are middle managers ready for action?. *International Journal of Organizational Analysis*. Ahead-of-print.
- Gibbons, L. V. (2020). Regenerative—The new sustainable?. *Sustainability*, 12(13), 5483.
- Gonzalez-Perez, M. A., & Piedrahita-Carvajal, D. (2022). Collective action for a regenerative future. In *Regenerative and Sustainable Futures for Latin America and the Caribbean: Collective Action for a Region with a Better Tomorrow* (pp. 255-264). Emerald Publishing Limited.
- Haar, G. (2024). Rethink Economics and Business Models. In *Rethink Economics and Business Models for Sustainability: Sustainable Leadership based on the Nordic Model* (pp. 31-48). Cham: Springer Nature Switzerland.
- Hahn, T., & Tampe, M. (2021). Strategies for regenerative business. *Strategic Organization*, 19(3), 456-477.
- Hardman, J. (2010). Regenerative leadership: A Model for Transforming People and Organizations for Sustainability in Business, Education, and Community. *Integral Leadership Review*, 10(5).
- Hardman, J. (2013). *Leading for regeneration: Going beyond sustainability in business education, and community*. Routledge.
- Hedberg, C. J., & Von Malmborg, F. (2003). The global reporting initiative and corporate sustainability reporting in Swedish companies. *Corporate social responsibility and environmental management*, 10(3), 153-164.
- Hein, L., Bagstad, K. J., Obst, C., Edens, B., Schenau, S., Castillo, G., ... & Caparrós, A. (2020). Progress in natural capital accounting for ecosystems. *Science*, 367(6477), 514-515.
- Hope, A. & Laasch, O. (2024). *Responsible Business: Foundations of Ethical and Sustainable Management*. Taylor & Francis.

- Hope, A., & Laasch, O. (2024). *Responsible Business: Foundations of Ethical and Sustainable Management*. Taylor & Francis.
- Howard, M., Hopkinson, P., & Miemczyk, J. (2019). The regenerative supply chain: a framework for developing circular economy indicators. *International Journal of Production Research*, 57(23), 7300-7318.
- Ibrahim, I., & Ahmed, N. (2022). Investigating regenerative ideation within sustainable development goals. *Sustainability*, 14(16), 10137.
- Initiative, C. S., Golden, J. S., Vermeer, D., Clemen, B., & Davie Nguyen, M. (2010). *An overview of ecolabels and sustainability certifications in the global marketplace*. Nicholas Institute for Environmental Policy Solutions. Duke University. Interim Report Document, 10-1.
- Jovanović Vujatović, M., Krstić, B. & Bonić, Lj. (2024). Key aspects of regenerative business model: concept, principles and strategies. *Journal of Regenerative Economics*, 2 (1), Ahead-of-print.
- Kamrowska-Zaluska, D., & Obracht-Prondzyńska, H. (2018). The use of big data in regenerative planning. *Sustainability*, 10(10), 3668.
- Konietzko, J., Das, A., & Bocken, N. (2023). Towards regenerative business models: A necessary shift?. *Sustainable Production and Consumption*, 38, 372-388.
- Krstić, B. (2022). *Upravljanje poslovnim performansama*. Kragujevac: Ekonomski fakultet.
- Lawlor, K. B. (2012). Smart goals: How the application of smart goals can contribute to achievement of student learning outcomes. In *Developments in business simulation and experiential learning: Proceedings of the annual ABSEL conference* (Vol. 39).
- Lyle, J. T. (1996). *Regenerative design for sustainable development*. John Wiley & Sons.
- Mahadevan, K. (2017). Culture driven regeneration (CDR): a conceptual business improvement tool. *The TQM Journal*, 29(2), 403-420.
- Marković, M., Krstić, B., & Radenović, T. (2020). Circular economy and sustainable development. *Economics of sustainable development*, 4(1), 1-9.
- Mason, C. (2017). Patagonia's journey into a new regenerative performance approach. *People & Strategy*, 40(3), 30-35.
- Miao, Q., & Nduneseokwu, C. (2025). Environmental Leadership in Private Organizations. In *Environmental Leadership in a VUCA Era: An Interdisciplinary Handbook* (pp. 317-398). Singapore: Springer Nature Singapore.
- Morris, P., & Therivel, R. (2001). *Methods of environmental impact assessment*. Taylor & Francis.
- Orsato, R. J., Garcia, A., Mendes-Da-Silva, W., Simonetti, R., & Monzoni, M. (2015). Sustainability indexes: why join in? A study of the 'Corporate Sustainability Index (ISE)' in Brazil. *Journal of Cleaner Production*, 96, 161-170.
- Oyefusi, O. N., Enegbuma, W. I., Brown, A., & Olanrewaju, O. I. (2024). Development of a novel performance evaluation framework for implementing regenerative practices in construction. *Environmental Impact Assessment Review*, 107, 107549.

- Pavez, F., Maxwell, D., & Bunster, V. (2022). Regenerative Design Performance assessment: A critical review. In *International Conference of the Architectural Science Association 2022* (pp. 504-513). The Architectural Science Association (ANZAScA).
- Rezaee, Z. (2025). *Business Sustainability Framework: Theory and Practice*. Taylor & Francis.
- Rhodes, C. J. (2015). Permaculture: Regenerative—not merely sustainable. *Science progress*, 98(4), 403-412.
- Roland, E., & Landua, G. (2013). *Regenerative enterprise. Optimising for Multi-Capital Abundance*. Shambhala Publications Inc., Boston, MA.
- Ryan, N., Beesemyer, L., Caulliez, S., Waiyaki, J., Nayak, M., Chakrabarty, R., ... & Vladimirova, D. (2023, June). Introducing a novel framework for regenerative business. In *New Business Models Conference Proceedings 2023*. Maastricht University Press.
- Seefeld, L. (2024). Regenerative by Design: Building Regenerative Business Models. In *Sustainability Stories: The Power of Narratives to Understand Global Challenges* (pp. 63-70). Cham: Springer Nature Switzerland.
- Shoaf, V., Jermakowicz, E. K., & Epstein, B. J. (2018). Toward Sustainability and Integrated Reporting. *Review of Business*, 38(1). 1-15.
- Siahaan, G., Junianto, P., Pada, A. T., Sembiring, C. F., & Regina, D. (2023). Zero Waste Business Model: Building A Regenerative Business Model Through Innovation and Collaboration. *International Journal of Science and Society*, 5(4), 404-415.
- Tàbara, J. D. (2023). Regenerative sustainability. A relational model of possibilities for the emergence of positive tipping points. *Environmental Sociology*, 9(4), 366-385.
- Then, V., Schober, C., Rauscher, O., & Kehl, K. (2017). Social return on investment analysis. *Social Return on Investment Analysis*. Palgrave Macmillan Cham.
- Vilar, A. P., & Perelló, V. C. (2023). Regenerative economy: principles and practice of implementation. *Проблеми і перспективи економіки та управління*, 2(34), 65-76.
- Wahl, D. C. (2016). *Designing regenerative cultures*. Triarchy Press.
- Wahl, D. C. (2019). Sustainability is not enough: We need regenerative cultures. In *Green planet blues* (pp. 241-245). Routledge.
- Xu, Q., Aung, K. M. M., Zhu, Y., & Yong, K. L. (2018). A blockchain-based storage system for data analytics in the internet of things. *New Advances in the Internet of Things*, 119-138.
- Yankovskaya, V. V., Bogoviz, A. V., Lobova, S. V., Trembach, K. I., & Buravova, A. A. (2022). Framework strategy for developing regenerative environmental management based on smart agriculture. In *Smart innovation in agriculture* (pp. 281-286). Singapore: Springer Nature Singapore.
- Zucchella, A., & Previtali, P. (2019). Circular business models for sustainable development: A “waste is food” restorative ecosystem. *Business Strategy and the Environment*, 28(2), 274-285.