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Organizational Transformation, Sustainability, and Emerging Technologies: Insights from Applied Scientific Research

Transformación organizacional, sostenibilidad y tecnologías emergentes: una mirada desde la producción científica aplicada

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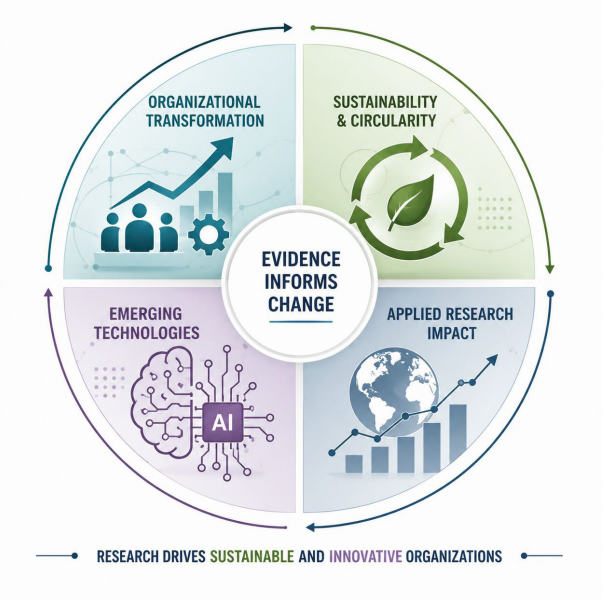
HIGHLIGHTS

- Provides an editorial overview of the special issue focused on applied research in organizational transformation, sustainability, and emerging technologies.
- Synthesizes key themes across 11 original research articles addressing structural change, AI, circular economy, digitalization, and post-pandemic knowledge management.
- Highlights the methodological diversity of the contributions, including case studies, comparative approaches, and impact-oriented frameworks.
- Emphasizes the role of research as a driver for strategic change across public, private, and nonprofit organizations.
- Advocates for strengthening international citation networks and fostering collaborative scientific ecosystems in Ibero-America.

GRAPHICAL ABSTRACT



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ABSTRACT

This editorial article introduces Volume 1, Issue 9 of IJMSOR, a special issue focused on organizational transformation, sustainability, and emerging technologies. The issue compiles rigorous, applied research studies that examine structural changes, business models, artificial intelligence, circular economy, digitalization, and knowledge management. These contributions offer practical solutions and analytical frameworks to address the challenges of contemporary organizations across public, private, and social sectors. The editorial highlights thematic synergies among the articles and emphasizes the importance of strengthening international citation networks and interdisciplinary collaboration within the scientific community.

Palabras clave:

Transformación organizacional, Sostenibilidad, tecnologías emergentes, Inteligencia artificial, Economía circular, Gestión del conocimiento

RESUMEN

Este artículo presenta la visión editorial del número especial V1-N9 de la revista IJMSOR, cuyo eje central es la transformación organizacional mediante tecnologías emergentes, sostenibilidad e innovación aplicada. Se analizan las contribuciones reunidas en este volumen desde una perspectiva integradora, destacando su valor metodológico y su impacto potencial en sectores públicos, privados y sociales. Además, se plantea la importancia de consolidar redes internacionales de citación y cooperación científica como parte del fortalecimiento del ecosistema de conocimiento en Iberoamérica.

1. Introduction

Organizational transformations are no longer reactive: they are strategic, proactive, and deeply informed by research. In this context, IJMSOR's special issue V1-N9 emerges as an editorial curation that highlights how scientific knowledge —when rigorous, contextual, and committed— can become a valuable resource for rethinking how organizations operate, make decisions, and project the future.

Under the title Organizational Transformation, Sustainability, and Emerging Technologies: Applied Solutions from Research, this issue gathers studies that engage in dialogue across various geographies and sectors, proposing concrete solutions to current challenges through robust methodological approaches and clear applied orientation.

2. Thematic Dialogues: Between the Emerging and the Structural

The opening article provides an overview of organizational transformation as a systemic process, integrating sustainability, change management, and emerging technologies as cross-cutting themes. This perspective lays the foundation for a collection of works that deploy diverse conceptual frameworks, comparative empirical approaches, and practical applications in real contexts.

Among them, an analysis of artificial intelligence-driven strategies for sustainable business innovation is included, proposing replicable models based on Latin American case studies. Another study focuses on digital twins in smart manufacturing, offering empirical evidence from three countries in the region.

Knowledge management is addressed from the perspective of organizational resilience in post-pandemic contexts, while other approaches apply circular economy as a tool to strengthen regional innovation systems.

The public policy evaluation using Big Data appears as a rigorous exercise in measuring social and economic impact, while social innovation is explored through a comparative analysis of initiatives in smart cities, integrating technological and community perspectives.

Sustainability is also reflected in the study on green supply chains through digital platforms, and in research on the factors driving technological entrepreneurship in urban ecosystems.

The issue also completes two proposals focused on institutional strengthening: one on the application of blockchain in non-profit organizations to improve accountability, and another examining how artificial intelligence can guide strategic planning in complex organizational contexts.

3. Conclusion: Science as the Architecture of Change

This special issue does not aim to offer a single model, but multiple possible paths. Each article represents a distinct coordinate on the map of organizational transformation, where technological tools, ethical commitments, and sustainable strategies converge. The diversity of approaches and contexts does not fragment the content: it enriches it.

From IJMSOR, we reaffirm our purpose to promote applied research with real impact potential and to project a scientific community open to dialogue, collaboration, and mutual citation. Science is not limited to producing knowledge: it is also a way of building a shared future.

Credit authorship contribution statement

Conceptualization: The editorial team defined the thematic focus of the special issue, aligned with organizational transformation, sustainability, and emerging technologies.

Methodology: An editorial criterion was designed based on rigorous methodologies, disciplinary diversity, and applicability of the accepted studies.

Validation: All articles underwent blind peer review, ensuring quality and relevance.

Formal analysis: A structural and thematic analysis was conducted to synthesize the contributions for the editorial article.

Investigation: Common patterns, emerging approaches, and methodological trends were identified from the selected articles.

Writing – original draft: The editorial team drafted the article based on the contributions and the journal's editorial line.

Writing – review & editing: The text was reviewed and edited by the IJMSOR editorial board for clarity and coherence.

Supervision: The editorial coordination of the special issue was managed by the responsible editor.

Project administration: Planning, scheduling, and communication with authors and reviewers were managed by the editorial team.

Resources: Bibliographic sources and metadata from the accepted articles were used, as well as cross-references with open-access databases.

Conflict of Interest Statement

The authors affirm that there are no financial interests or personal associations that could be perceived as having impacted the objectivity or integrity of the research presented in this manuscript.

Referencias

Bai, C., Dallasega, P., Orzes, G., & Sarkis, J. (2021). Industry 4.0 technologies assessment: A sustainability perspective. International Journal of Production Economics, 229, 107776. https://doi.org/10.1016/j.ijpe.2020.107776

Floridi, L., Cowls, J., Beltrametti, M., Chiarello, F., et al. (2018). AI4People—An ethical framework for a good AI society: Opportunities, risks, principles, and recommendations. Minds and Machines, 28(4), 689–707. https://doi.org/10.1007/s11023-018-9482-5

Guszcza, J., Mahoney, S., Small, M., & Kose, S. (2020). Human-centered AI: The new frontier. Deloitte Insights. https://www2.deloitte.com/us/en/insights/focus/cognitive-technologies/human-centered-ai.html

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