

A Strategic Framework for AI-Augmented Human Resource Management and Organizational Sustainability: The Algorithmic Advantage

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ABSTRACT

Industry 4.0 has accelerated digital transformation across the board. Companies are not simply refining their operations; they are fundamentally reimagining them. Human Resources is not a passive observer in this process; it is playing a pivotal role, guiding how employees adapt to emerging technologies. Artificial Intelligence is no longer just a helpful tool; it has become the driving force behind how organizations operate, make strategic decisions, and maintain a competitive edge. This article introduces a framework grounded in the Resource-Based View (RBV) and Knowledge-Based View (KBV). The central message is clear: AI extends beyond hardware and software. It encompasses people, organizational culture, and leadership. These “AI capabilities” are not merely supporting functions; they are core assets that distinguish leading companies. The framework identifies Green Innovation as the crucial connection between AI adoption and achieving sustainability objectives. It further highlights that factors such as risk management and technological adaptability significantly influence how effectively companies implement AI. While AI enhances efficiency and sharpens decision-making, the transition is not without challenges. Organizations must still address concerns like algorithmic bias, transparency, data privacy, and fostering employee trust in new technologies. Achieving sustainable success with AI requires robust ethical guidelines, comprehensive training, and genuine collaboration between humans and machines.

Keywords: Artificial Intelligence; Industry 4.0; Digital Transformation; AI Capabilities; Resource-Based View (RBV); Knowledge-Based View (KBV); Green Innovation; Sustainability; Human Resource Management; Technological Adaptability

