

Artificial Intelligence in Supply Chain and Operations Management: Driving Global Sustainability and Positive Business Transformation

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Abstract

The contemporary business landscape is experiencing a significant shift toward sustainability and positive organizational practices, fundamentally reshaping strategic priorities and academic research agendas. This abstract investigates the transformative role of Artificial Intelligence (AI) in advancing sustainability efforts within the domains of supply chain and operations management. Utilizing advanced AI technologies such as predictive analytics, machine learning, and real-time data processing, organizations are better equipped to enhance supply chain efficiencies, optimize operational workflows, minimize environmental impact, and reinforce ethical sourcing decisions. Positive organizational practices, including strengths-based leadership and appreciative inquiry, complement these technological advancements by fostering resilience, employee well-being, and broader societal impacts. Specifically, AI-driven innovations significantly enhance transparency in supply chain processes, facilitate waste reduction, and effectively lower emissions. The synergy between AI and positive business methodologies thus presents a strategic advantage, offering novel solutions to global sustainability challenges. This underscores the importance of interdisciplinary collaboration and technological integration, establishing AI as a crucial catalyst in shaping sustainable, ethical, and prosperous business practices globally.

Keywords

Artificial Intelligence, Supply Chain Management, Operations Management, Sustainability, Predictive Analytics