Integration of AI and intellectual capital in promoting sustainable practices in tourism and hospitality Industry

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Abstract

While AI does offer significant advantages, its adoption faces immense barriers including technological limitations, cultural inertia, and ethical dilemmas around data privacy and depersonalized interactions. In order to make the most of the potential of AI, the industry needs to devote investment resources to employee training while also implementing transparent data practices and fostering a culture that maintains a healthy balance between technological advancement and human contact.

Data up to October 2023 focuses on neural networks, data mining, sentiment analysis, and service robots in relation to AI in tourism and hospitality. Despite the growing attention in academia, there is a dearth of empirical studies that focus on how AI can promote sustainability in these sectors. Though AI's contributions to sustainability have been examined in sectors such as manufacturing and transportation, there is a significant gap in understanding AI in tourism and hospitality.

Filling this gap, almost no research endeavours to systematically examine the interaction between AI, intellectual capital, and sustainability. We lack numerous studies exploring the extent to which human, structural, and relational capital can positively or negatively influence the effectiveness of AI to support sustainability. Additionally, there are currently no integrated frameworks that creates an overarching model that integrates AI, intellectual capital, and sustainability for the tourism and hospitality organizations.

Keywords: Artificial intelligence, Sustainability, Tourism and Hospitality Industry, Intellectual capital.