

AI in Healthcare Management and Accounting: Novelties and Trends from a Literature Review and Illustrative Cases*

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Abstract

Through a mixed-methods approach based on a critical analysis of both literature and industry trends (referred to real-world practices / illustrative cases), as rapidly emerging in recent years, we investigate the transformative impact of Artificial Intelligence on healthcare sector, notably the powerful intersection – still too little explored by extant scientific doctrine – of health management and accounting system AI related. As the technological advancements continue to reshape the healthcare landscape, we found an AI expanding as a pivotal instrument in managing, innovating, and optimising strategic and operational processes (by enhancing executives' decision-making). We drew as main effect of such a process – when enabled by a fruitful integration of managers and experts (data scientists / IT professionals) – an improvement of both patient care and financial efficiency as well (i.e., overall healthcare delivery in order to generate business value) thanks to a more profound real-time KPIs monitoring (patient outcomes, resource utilisation, and financial metrics). We also critically review new challenges such as data privacy, security, and ethical considerations emphasising the importance of responsible AI deployment for building patient trust and ensuring regulatory compliance. In this regard, a public awareness of AI and the establishment of standardised guidelines will be additionally required. By delving into the novel applications of AI in healthcare administration, financial management, and synergies between these domains, this work can benefit a diverse audience across various sectors of the healthcare industry, technology, public administration, and academia. Limitations and future directions of research are provided.

Keywords: Artificial Intelligence, Health Management and Accounting System, Healthcare Data Analytics, Patient-centric.