Assessing AI-Driven Workforce Training Needs in The Saudi Arabian Healthcare System*

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Abstract

The Saudi Arabian healthcare sector is undergoing rapid transformation under Vision 2030, emphasizing digital innovation and improved healthcare services. Artificial Intelligence (AI) offers promising solutions for enhancing workforce training, addressing skill gaps, and improving healthcare delivery. In the dynamic landscape of healthcare, the intersection of cutting-edge technology and patient-centric solutions has sparked a paradigm shift, and at the forefront of this transformative wave is AI. Through personalized learning paths, real-time feedback, predictive analytics, and automation, organizations can develop a highly skilled and adaptable workforce. The use of AI is on the rise and human resource development is no exception to this. Literature on assessing AI-driven workforce training needs is limited and more specifically in healthcare setting, there is hardly any research up till now. This research aims to investigate the training needs of the Saudi Arabian healthcare workforce and assess how AI-driven solutions can address these requirements effectively. The research will adopt a mixed-methods approach combining qualitative and quantitative strategies to gather comprehensive insights. A structured questionnaire will be distributed among 350 healthcare professionals, including doctors, nurses, and administrators, to assess current skill gaps, training needs, and AI adoption perceptions. Then, 30 in-depth interviews will be conducted with key stakeholders, including policymakers, healthcare managers, and AI developers. Thematic analysis will be used to extract key themes related to AI adoption challenges and opportunities. This research will contribute valuable insights to support the development of AI-driven workforce training initiatives in Saudi Arabia's healthcare sector, aligning with the nation's Vision 2030 objectives. By leveraging AI's potential, the healthcare sector can improve staff competency, enhance patient outcomes, and support national healthcare goals.

Keywords: AI Adoption; Training; Well-being; Healthcare.