

AI-Driven Recruitment Analytics and Organisational Performance: Opportunities and Risks for HR Practice

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Abstract

The adoption of artificial intelligence in recruitment and HR analytics is transforming how organisations approach talent acquisition, performance evaluation, and workforce planning. This study examines the impact of AI-driven recruitment tools — including automated resume screening, predictive performance analytics, and chatbot-led candidate engagement — on key HR outcomes such as time-to-hire, quality of hire, and employee retention. Drawing on case evidence from 28 organisations that have implemented HRIS and AI-enabled recruitment systems, supplemented by survey data from 312 HR practitioners, the paper evaluates both efficiency gains and emerging risks, including algorithmic bias, reduced human oversight in candidate evaluation, and challenges to diversity, equity, and inclusion outcomes. The findings suggest that while AI tools can meaningfully reduce administrative burden and improve process speed, their long-term effectiveness depends on careful governance frameworks that safeguard fairness and transparency. The paper concludes with practical recommendations for HR practitioners and policymakers on responsibly integrating AI into recruitment and performance management systems.

Keywords: AI recruitment, HR analytics, algorithmic bias, talent acquisition, HRIS, DEI, HR technology, workforce planning