

Effectiveness of Artificial Intelligence Adoption in Recruitment and Selection

by

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Abstract

This doctoral thesis investigates the factors that drive the integration of artificial intelligence (AI) in recruitment and selection (RS) processes in the context of Human Resource Management (HRM). Furthermore, this study explores the impact of AI adoption on achieving strategic human resource (HR) goals through RS.

In doing so, the study addresses critical problems HR professionals face: what factors influence AI adoption in RS, how AI can contribute to achieving HR outcomes, and under what conditions AI contributes to HR outcomes. The research questions guiding this study are (1) What factors drive AI adoption in RS, and what do recruitment professionals perceive are the potential benefits and drawbacks of AI? (2) Under what conditions are the adoption drivers applicable in adopting AI in RS? and (3) How and under what circumstances does using AI in RS affect strategic HR outcomes?

This study contributes to the HRM literature by developing the AI-RS model for the effective use of AI in RS and the complexities associated with AI adoption in RS. Thus, the theoretical contribution of this study is three-fold. Firstly, this multidisciplinary study integrates the AI technology adoption and HRM literatures and extends the Unified Theory of Acceptance and Use of Technology (UTAUT)-Operational Management (OM) by including key RS processes into the model. By

doing so, it explores the circumstances when AI use is most effective in RS, especially in achieving HR outcomes. Secondly, the study provides a perspective from recruitment professionals such as recruiters, hiring managers, and HR executives, who are the primary actors in RS functions. Prior research largely ignored this critical perspective; therefore, this study provides a valuable viewpoint that directly impacts the effective use of AI. Thirdly, the study establishes a link between AI adoption in RS and the achievement of HR outcomes, which is found to be a gap in the literature. Thus, the proposed model would help other researchers and HRM executives use it for other emerging technologies to understand their effectiveness in achieving HR outcomes.

The study uses a mixed method of qualitative and quantitative research to develop, test, and validate the AI-RS model and answer the research questions. The qualitative phase includes 17 interviews with RS professionals, and the quantitative phase involves a survey of 215 recruiters, hiring managers, and HR executives from different industries. Structural equation modeling is used to test the model statistically.

The study found that AI is rapidly being adopted in RS, with the main driving factors being expected benefits, facilitating conditions, AI behavioral intentions, and specific recruitment phases. The anticipated benefits of AI adoption include achieving work-life balance, increasing the quality of the recruitment process, and enhancing the career progression of professionals associated with the recruitment process. Facilitating conditions for AI adoption include AI systems integration with other HR systems, tracking how AI makes decisions in the recruitment process, and protecting candidate data privacy. The study also highlights the influence of modern emerging technologies, media, and customer expectations upon RS professionals in promoting AI adoption.

The findings reveal that AI can achieve HR outcomes, including improving hiring quality through standardized processes and reducing the time and cost of hiring. The conditions necessary for achieving these outcomes include meeting facilitating

conditions and using AI only in specific recruitment phases. The study also indicates experience of RS professionals moderates this relationship in such a way that less experienced professionals are more inclined to adopt/use AI compared to experienced professionals, and these outcomes depend on different hiring volumes.

The study provides recommendations for RS professionals. These suggestions advocate for a collaborative approach to AI adoption involving a hybrid AI-human recruitment and selection process. The aim is to address concerns raised by professionals about AI's limitations in establishing a human-like connection with candidates and its potential negative impact on candidate experience.

The study provides practical managerial implications into the applicable aspects of RS where AI can be effectively applied, and the facilitating conditions required to achieve the expected outcomes. The study's findings also have implications by identifying channels that can be used to motivate RS professionals to use and adopt AI. The proposed AI-RS model provides a guide for using AI to contribute to achieving HR outcomes. Overall, this study provides insights to guide managerial interventions for the effective adoption of AI.