

Chapter 16

Trends of Artificial Intelligence in Human Resources Management Using Bibliometric Analysis

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ABSTRACT

Human resource management (HRM) is essential in organizations, as employees drive productivity and growth. To improve HRM, many practitioners are implementing artificial intelligence (AI). This chapter explores AI's significant impact on HRM through a bibliometric and visualization analysis of 676 research articles from the Scopus database, covering studies from 1991 to September 2024. Key areas examined include leading authors, countries, institutions, journals, and research

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themes using VOSviewer. Findings reveal China, the United States, and India as top contributors, with Human Resource Management Review publishing the highest number of articles (10) and Aston University having the most contributions (15). No single author dominated, with a maximum of six articles published by one individual. This study also suggests future research directions, offering valuable insights for researchers and organizational leaders to leverage AI for enhanced HRM practices.

INTRODUCTION

A large number of organizations in various sectors today are implementing or have an interest in implementing artificial intelligence (AI) (Füller et al., 2022). Industries such as telecommunications, engineering, financial services, customer service, healthcare, pharmaceuticals, and educational institutions are at the forefront of adopting AI tools and technologies (Perifanis & Kitsios, 2023). The fast pace of digitization, and AI's acceptance in particular, is changing the face of business (Javaid et al., 2022). AI has changed how organizations operate and has become part of corporate strategy. Human Resources Management (HRM) departments are affected in a similar way. The HRM role has changed in many dimensions, creating a redefined impact on both micro-organizational and macro-economic levels (Hmoud & Varallyai, 2023). As a result, there has been a clear transformation in the HRM role, with an increase in focus on strategic aspects. AI in HRM can provide organizations better capacity, more value-adding insights, and analytical support, ultimately allowing personnel management to be more effective.

AI is an initiative technological advancement with implications for the workplace. We must understand the impact of AI development on research (Tambe et al., 2019). Once AI proliferates, it could eliminate many jobs in an already unequal social structure, or it could lead to advances in job quality or number of jobs that exist rather than simply eliminate them. With these conditions, it is apparent that AI will have a vast influence on the future of human resource management (HRM). The promise of AI integration into HRM is significant and can generate numerous impressive outcomes (Radonjić et al., 2022). The interdisciplinary character of AI IN HRM goes far beyond the typically understood scope of standard HRM practices. While AI-driven HR solutions depend mainly on technological developments, their application and implications must be illuminated by the social sciences. Scholars across disciplines have significantly contributed to the emergence of artificial intelligence and human resource management (Saini & Tarkar, 2022). For example, in computer science, researchers have developed AI algorithms meant to aid in addressing problems encountered by practitioners in human resource management (HRM). While there is a myriad of research on the intersection of AI and HRM

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