

Chapter 15

The Integration of AI in Performance Appraisal: Balancing Automation With Human Judgment

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ABSTRACT

Integrating artificial intelligence into human resource management practices, particularly in performance appraisal, transforms how organisations evaluate and manage employee performance. AI-driven systems offer enhanced accuracy and efficiency through continuous data collection and analysis. Yet, human judgement remains indispensable in capturing the nuances of employee behaviour, interpersonal dynamics, and organisational culture. This chapter explores the balance between AI-driven automation and human oversight in performance appraisal, emphasising the need for a hybrid model that leverages both strengths. This chapter examines AI's role in performance management, focusing on its advantages and limitations. It also offers a conceptual model to integrate artificial intelligence with human judgment. This framework highlights the critical role of human judgment, ensuring that AI enhances rather than supplants human decision-making processes. By leveraging the complementary strengths of AI and human insight, organisations can develop equitable and efficient evaluation systems.

DOI: 10.4018/979-8-3693-9395-6.ch015

1 INTRODUCTION

In recent years, the rapid advancement of Artificial Intelligence (AI) has significantly impacted various domains, including human resource management (HRM) (Nawaz et al., 2024). Organisations increasingly use AI to streamline HR processes, enhance decision-making, and improve employee performance (Budhwar et al., 2022). Among the HR functions most significantly affected by AI is performance appraisal, a critical process for assessing employee contributions and directing professional development (Buck & Morrow, 2018).

1.1 The Traditional Performance Appraisal Process

Historically, performance appraisals have been executed annually or semi-annually, emphasising past performance through subjective assessments by supervisors or managers (DeNisi & Pritchard, 2006). Although these evaluations offer significant feedback, they are frequently hindered by problems, such as prejudice, inconsistency, and the failure to encompass the entirety of an employee's daily efforts (Grund & Przemek, 2012; Na-Nan et al., 2020).

In its traditional form, performance appraisal denotes the systematic assessment of an employee's performance against predetermined criteria (Rajapakse, 2024). It functions as an instrument for evaluating accomplishments, pinpointing areas for improvement, and informing decisions on promotions, remuneration, or training. This technique has always encountered criticism for its retroactive nature and limited breadth (Leavitt et al., 2024). Managers may judge personnel influenced by recent occurrences, resulting in recency bias, or permit a singular, exceptional characteristic to affect their overall evaluation (the halo effect) (Cantarelli, 2023). Furthermore, employees frequently obtain feedback belatedly, hindering their ability to implement timely enhancements and diminishing the appraisal's efficacy in promoting immediate development (O'Pry & Schumacher, 2012).

1.2 The Rise of AI in Performance Appraisal

Artificial Intelligence, by its capacity to process extensive datasets instantaneously, provides a remedy for numerous difficulties. In contrast to conventional assessments, AI-driven performance appraisal solutions allow organisations to gather and analyse ongoing performance data, rendering the review process more dynamic, objective, and actionable (Nyathani, 2023). Artificial intelligence technologies, like machine learning and natural language processing (NLP), enable human resources depart-

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