

THE ROLE OF ARTIFICIAL INTELLIGENCE IN PERFORMANCE APPRAISAL: AN ANALYSIS OF HR PROFESSIONALS' PERSPECTIVES

VÎLSAN ISABELLE-ANA-MARIA

PHD STUDENT, “OVIDIUS” UNIVERSITY OF CONSTANȚA, FACULTY OF ECONOMIC SCIENCES, CONSTANȚA, ROMANIA

e-mail: isabelle.vilsan@365.univ-ovidius.ro

LUNGU OTILIA-ANA

PHD STUDENT, “OVIDIUS” UNIVERSITY OF CONSTANȚA, FACULTY OF ECONOMIC SCIENCES, CONSTANȚA, ROMANIA

e-mail: otilia.lng@gmail.com

Abstract

The aim of this paper is to identify the benefits and challenges associated with the use of artificial intelligence in the professional performance appraisal process, by exploring the perceptions of human resources experts. The research adopts a qualitative methodology, based on ten semi-structured interviews conducted with HR managers from six private organisations in Romania that use AI-based assessment systems. The data were transcribed and analysed using thematic coding in the ATLAS.ti platform, providing an integrated view of the phenomenon under study. The results highlight that the integration of AI is perceived as a factor in reducing human subjectivity, ensuring procedural fairness through the standardisation of criteria and the use of quantifiable indicators. However, the analysis reveals critical concerns regarding the vulnerability of training data and the risk of perpetuating historical biases under the guise of technological neutrality. The study emphasises the importance of the ‘Human-in-the-Loop’ concept, arguing that ultimate responsibility must be shared: whilst the organisation provides the technological framework, the manager acts as a validation agent to contextualise algorithmic results. The conclusions indicate that the success of implementing these systems depends fundamentally on process transparency, algorithmic literacy and guaranteeing the right to an explanation, transforming technological opacity into an ethical and fair evaluation system.

Keywords: AI, performance appraisal, HR, algorithmic bias, procedural fairness

JEL Classification: M12, M53, O33, J24

1. Introduction and context of the study

In the context of dynamic and accelerated changes in the labour market, professional performance appraisal is a central component for individual development, supporting organisational performance and informing human resource management decisions. In traditional approaches, this process has been predominantly dominated by human judgement, which is often subjective and influenced by cognitive and emotional factors, leading to challenges regarding the transparency and fairness of the process [1].

Technological advances in recent years, particularly in the field of artificial intelligence, have led organisations to adopt solutions based on AI integration to optimise and streamline human resources processes, including employee performance appraisal [2]. The transition from manual methods, characterised by subjectivity, to algorithm-assisted assessment promises objectivity, accuracy and support for managerial decisions, which fundamentally transforms the way in which employee assessment is defined, measured and managed in the professional environment [3].

However, the integration of AI into professional performance appraisal raises a number of ethical dilemmas and implementation challenges [4]. Although AI is often presented as a solution for reducing subjectivity through standardisation and the processing of large volumes of data, the specialist literature indicates that these systems generate new forms of bias, with implications for the risk of discrimination in employee performance appraisal [5]. As these systems expand, a new

set of questions is emerging regarding the types of data that can be used legitimately and ethically to support assessment, the boundary between necessary monitoring and excessive surveillance, as well as the establishment of procedural mechanisms for challenging decisions influenced by AI [6]. Furthermore, establishing liability in the event that an AI system produces an error raises difficulties regarding the legal and ethical norms underpinning the use of this process [7].

Building on these premises, this research aims to analyse employees' perceptions of AI-assisted performance appraisal and to evaluate its implications and practices, with the aim of outlining a perspective on the balance between the promise of objectivity and the associated risks. Through an integrated approach to dimensions related to objectivity, the reduction or generation of biases, the risks of discrimination, criteria considered legitimate and ethical, responsible management, and the challenge of AI systems, the research seeks to highlight and interpret the perspectives of those directly affected by these practices. The study adopts a qualitative approach, based on in-depth interviews with human resources specialists, to examine how AI-assisted professional performance evaluation is perceived and interpreted from different professional perspectives.

This investigation is guided by three main hypotheses: (H1) objectivity in performance evaluation expresses scepticism regarding the complete elimination of human subjectivity; (H2) it is anticipated that the use of AI in professional performance evaluation may introduce new forms of bias and intensify the risks of discrimination, particularly in relation to certain categories of data; (H3) it is considered essential to have clear and fair mechanisms for challenging AI-influenced assessments and decisions, as well as defining accountability in the event of errors.

The contribution of this article lies, first and foremost, in presenting empirical findings on the effects of using AI in performance evaluation, highlighting the areas where the technology's promises encounter organisational constraints and challenges related to data, discrimination and accountability. Secondly, through a detailed analysis of ethical dilemmas and operational aspects, the paper supports the consolidation of a conceptual framework for the responsible use of AI. Finally, the conclusions provide guidance for organisations in shaping AI implementation practices, so that benefits are maximised whilst minimising the risks of inequity and discrimination.

2. Methodology and objectives of the study

The study was conducted using a qualitative approach, employing semi-structured and thematically coded interviews to establish a solid foundation for understanding the perceptions of human resources managers regarding the use of artificial intelligence in professional performance evaluation.

The objective of this paper is to identify both the benefits and the challenges associated with the use of artificial intelligence in professional performance evaluation.

The research involved 10 respondents with responsibilities in the field of human resources, from the private sector, across six Romanian organisations that use artificial intelligence in professional performance evaluation.

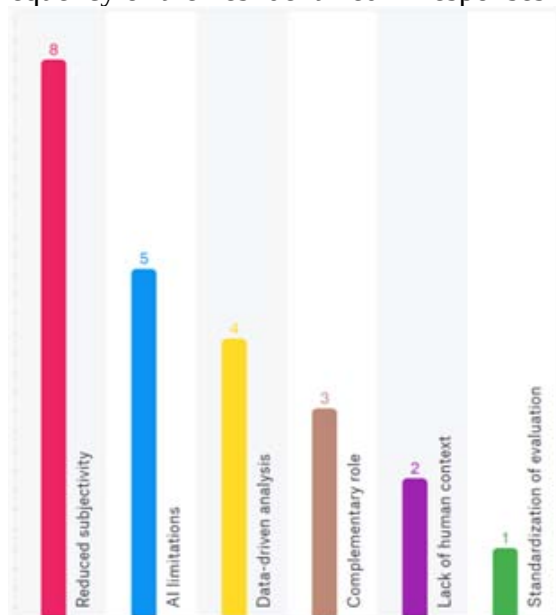
The interview consisted of two parts. The first part covered information about the respondents, whilst the second part comprised seven open-ended questions focusing on the respondents' perceptions of the use of artificial intelligence in assessing professional performance.

Once the data collection process was complete, the responses were transcribed into the ATLAS.ti platform for coding. Each respondent's response was carefully reviewed, and relevant text fragments were selected and assigned descriptive codes reflecting the meaning of the content, thereby constructing an integrated view of the phenomenon under study.

3. Results and Discussion

The first question aimed to verify whether the promise of objectivity associated with AI is also supported at the level of respondents' perceptions, by identifying arguments explaining why AI would reduce subjectivity in assessment and under what conditions this contribution is considered realistic.

Figure No.1 Frequency of themes identified in responses to Question 1 (n = 10)

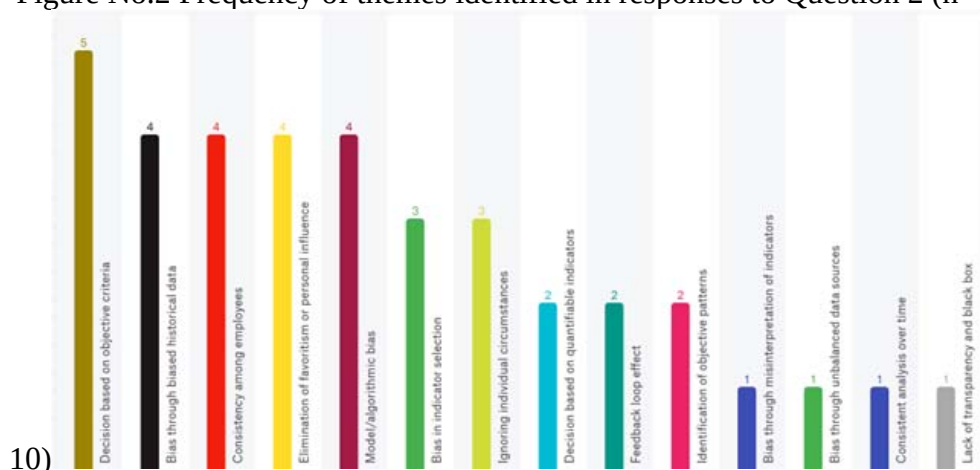


Source: Authors' own analysis based on thematic coding in ATLAS.ti.

The analysis indicates a predominantly favourable stance towards the idea that AI can reduce the subjective component by applying more consistent criteria and through the systematic use of data, which limits the influence of personal preferences. However, the responses reflect an important nuance: participants emphasise that the technology has limitations in capturing the work context and situational factors, and in the absence of human interpretation, the assessment risks becoming excessively standardised and less sensitive to the particularities of the role.

The second question sought to capture respondents' perceptions regarding the extent to which AI can reduce the subjectivity of the human assessor and the conditions under which, conversely, it may produce or amplify bias.

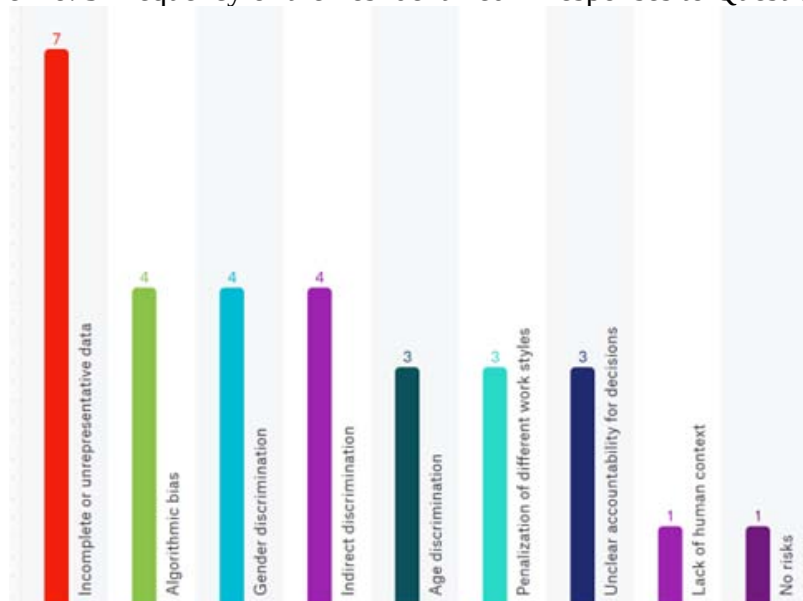
Figure No.2 Frequency of themes identified in responses to Question 2 (n =



The responses indicate a nuanced assessment: participants associate AI with the possibility of a more consistent evaluation, based on data and uniformly applied criteria, but emphasise that this consistency does not automatically guarantee the fairness of the results. In particular, they mention the risk that models may incorporate distortions from historical data and transform them into algorithmic bias, with long-term effects on fair treatment within the organisation.

Question 3 was formulated to identify what types of discrimination respondents anticipate in the context of AI-assisted performance evaluation and what mechanisms are perceived as generating these effects.

Figure No. 3 Frequency of themes identified in responses to Question 3 (n = 10)

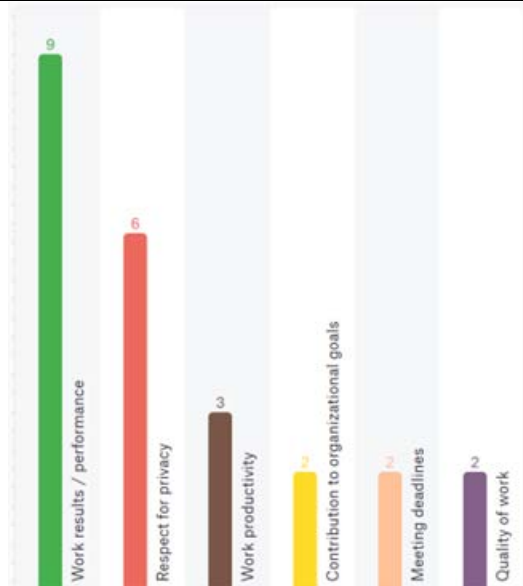


Source: Authors' own analysis based on thematic coding in ATLAS.ti.

The responses indicate that the main source of risk is data quality: participants point out that incomplete or unrepresentative datasets can lead to erroneous patterns and unequal outcomes between groups, even if the processing is presented as 'neutral'. In this context, risks of indirect discrimination and differences in treatment associated with gender and age are explicitly mentioned, as well as situations in which different working styles may be penalised by insufficiently calibrated criteria.

Question 4 was formulated to delineate, from the respondents' perspective, the boundary between data relevant to performance evaluation and information perceived as intrusive.

Figure No.4 Frequency of themes identified in responses to Question 4 (n = 10)

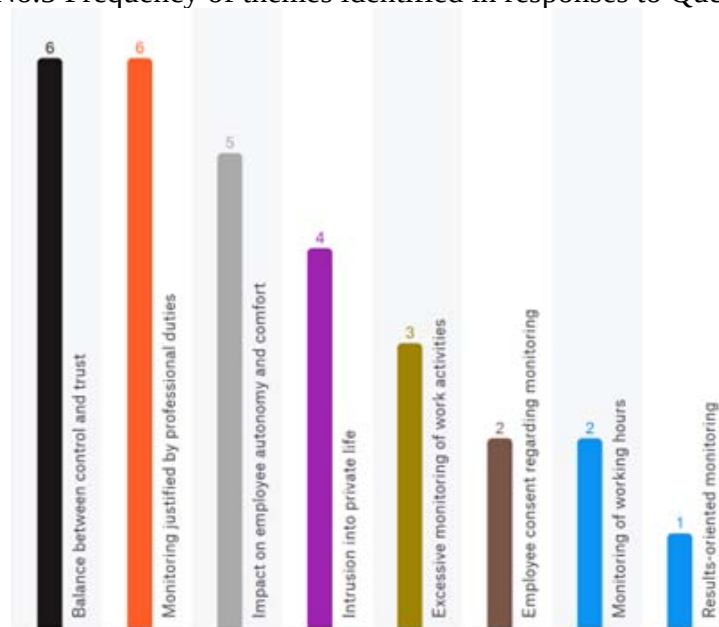


Source: Authors' own analysis based on thematic coding in ATLAS.ti.

The responses indicate a consistent preference for limiting data collection to information of direct professional relevance, linked to job description tasks and observable outcomes of work (e.g., work output, productivity, meeting deadlines and quality of work). In contrast, the use of information that goes beyond the professional sphere, such as aspects of personal life or sensitive data, is interpreted as an unjustified invasion of privacy and as difficult to justify from an ethical perspective.

Question 5 explored respondents' perceptions of the boundary between necessary monitoring and excessive surveillance in the context of AI use.

Figure No.5 Frequency of themes identified in responses to Question 5 (n = 10)



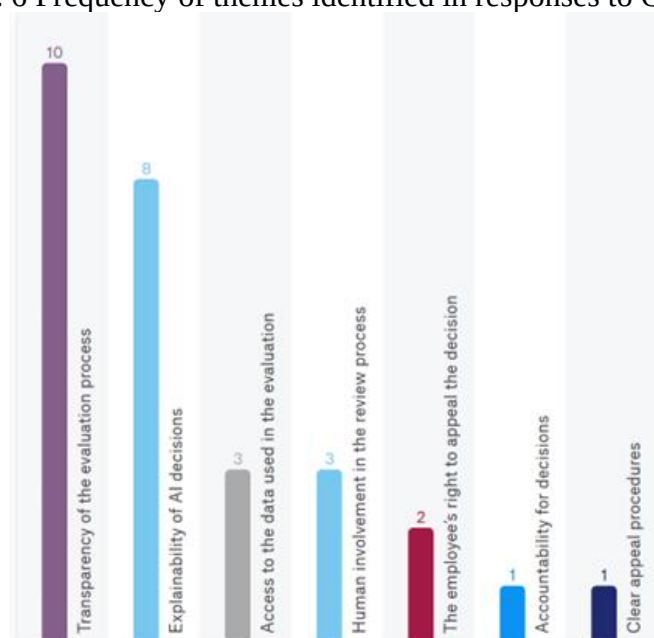
Source: Authors' own analysis based on thematic coding in ATLAS.ti.

The responses suggest that monitoring is accepted provided it remains proportionate, transparent and focused on professional activities, and is justified by the need to track workflows and results. Conversely, practices perceived as intrusive, particularly those extending data

collection to non-essential behaviours or the private sphere, are associated with a reduction in autonomy and psychological well-being, with effects on trust and the organisational climate. Participants mention that assessment based on excessive monitoring can generate pressure, resistance or burnout, which leads to excessive monitoring being interpreted more as a factor inhibiting productivity than as a tool for improvement.

Question 6 focused on respondents' perceptions of the components that ensure a fair appeal process when evaluation is influenced by AI.

Figure No. 6 Frequency of themes identified in responses to Question 6 (n = 10)

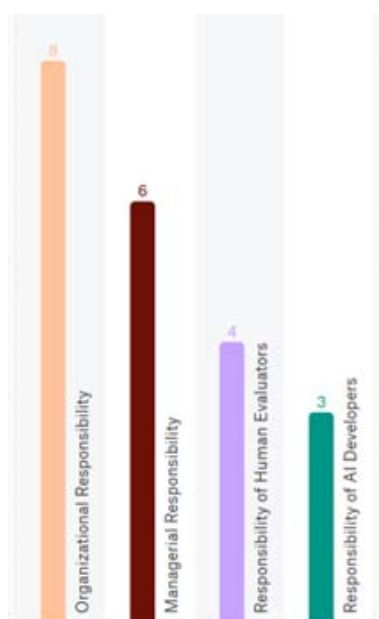


Source: Authors' own analysis based on thematic coding in ATLAS.ti.

The responses indicate that acceptance of these systems depends, first and foremost, on transparency and explainability, as employees must be able to understand the logic behind the decision and the data used in the assessment. Participants mention the importance of clear procedures through which they have access to relevant information (for example, which indicators were used and how they contributed to the result), as well as the involvement of a human factor in the review stage. In this context, the appeal process is seen as a way of reducing the sense of unfairness and making the process easier to follow and verify, which in turn affects trust and willingness to accept the assessment.

The final question was formulated to clarify the mechanisms for assigning responsibility when AI-assisted evaluation leads to erroneous or biased results.

Figure No.7 Frequency of themes identified in responses to Question 7 (n = 10)



Source: Authors' own analysis based on thematic coding in ATLAS.ti.

The responses indicate a preference for a shared responsibility model, in which the organisation remains responsible for the selection, integration and governance of the system, whilst managers are tasked with validating the results before they are translated into decisions with career implications. In this context, human oversight is considered a necessary condition for limiting errors and ensuring a credible evaluation process.

4. Conclusions

This research, based on interviews with the 10 HR experts, highlights the fact that artificial intelligence is perceived as a dual tool in employee performance appraisal. On the one hand, respondents consider AI to be a means of enhancing objectivity, facilitating the shift from assessments based on human intuition to decisions grounded in concrete data [8], [9]. On the other hand, the analysis highlights concerns that AI-assisted assessment may overlook contextual elements relevant to the interpretation of performance. The experts emphasise that, although the algorithm ensures uniformity of criteria, it may fail to capture the complexity of human behaviour in the workplace [10].

A critical conclusion of the study concerns the risk of algorithmic bias. Respondents clearly identified the danger that AI might adopt and codify the distortions and prejudices present in the history of organisational performance. This reproduction of bias, although it may appear to be the result of a neutral technical process, can generate new forms of systemic discrimination if the input datasets are poor or uncalibrated [11], [12]. Thus, the success of the technology depends directly on the rigour with which data is selected, so as not to turn a tool for equity into one for exclusion [13].

As regards the ethics of data use, the conclusions are clear: the legitimacy of the assessment process depends on restricting the collection of information to strictly professional matters. The experts interviewed consider that any data collection that goes beyond quantifiable work outcomes, such as private life, health status or family circumstances, constitutes an unjustified intrusion [14]. From a management perspective, respecting this boundary of confidentiality is essential to maintaining a climate of trust and to avoiding breaches of fundamental ethical standards [15].

Research also reveals a close link between surveillance and employee well-being. Respondents specify that excessive monitoring, although intended to optimise workflows, can trigger mechanisms of resistance and professional burnout [16]. Excessive algorithmic control is

perceived rather as a factor that reduces productivity. Consequently, organisations must strike a balance between necessary supervision and respecting the decision-making autonomy of each individual employee [17].

Another fundamental pillar identified in the research is the need to explain automated decisions. To reduce suspicion that a decision is unjustified, it is imperative that organisations implement communication protocols to explain the variables and their weighting in the final assessment. Transparency and the right to an explanation thus become key mechanisms for the acceptance of the technology at an organisational level [18], [19].

Finally, the research proposes a shared responsibility model to manage the errors that AI systems may produce. Respondents agree that the organisation bears systemic responsibility, but managers must act as validation agents [20], [21]. This active human oversight ensures that the results generated by algorithms are subjected to critical scrutiny before becoming administrative decisions. Only through this combination of digital systems and human judgement can professional performance appraisal become a truly fair and transparent process [22].

5. Limitations and recommendations for future research

The study was based on a sample of 10 individuals with responsibilities in the field of human resources from six private organisations, which limits the possibility of generalising the conclusions to the entire labour market.

For future research, we propose the following directions:

1. Expanding the research using a validated questionnaire, applied to a broader and more diverse sample of respondents;
2. Comparing perceptions with objective performance data (productivity indicators, internal mobility, monitoring of career progression via algorithmic assessment, etc.);
3. Monitoring a full AI-assisted evaluation cycle over time to observe the evolution of technology acceptance;
4. Controlled testing of AI-generated feedback variants (frequency, level of specificity and clarity of explanations provided to the employee);
5. Conducting a dedicated analysis of digital tools and AI systems from the perspective of algorithmic transparency and the protection of personal data.

These additions can strengthen the quality of the conclusions and support recommendations applicable in diverse organisational contexts.

Acknowledgments

The paper entitled “The Role of Artificial Intelligence in Performance Appraisal: An Analysis of HR Professionals’ Perspectives” was presented within the International Scientific Symposium Horizons of Economic Research in a Global Context (HERGC 2026)

6. Bibliography

- [1] Ensslin, S. R., Rodrigues, K. T., Yoshiura, L. J. M., da Silva, J. C., & Longaray, A. A. (2022) *Organisational Performance Management and the ‘Sustainability’ of the Performance Evaluation System: A View Guided by the Integrative Review Perspective*. Sustainability, 14(17), 11005, <https://doi.org/10.3390/su141711005>
- [2], [4] Chen, Z. (2023) *Ethics and discrimination in artificial intelligence-enabled recruitment practices*. Humanities and Social Sciences Communications, 10, 567. <https://doi.org/10.1057/s41599-023-02079-x>
- [3] Benaboua, A., & Touhamia, F. (2025) *Empowering human resource management through artificial intelligence: a systematic literature review and bibliometric analysis*. International Journal of Production Management and Engineering, 13(1), 59–76. <https://doi.org/10.4995/ijpme.2025.21900>

- [5], [15] **Du, J. (2024)** *Ethical and Legal Challenges of AI in Human Resource Management*. Journal of Computing and Electronic Information Management, 13(2), 71–77. <https://doi.org/10.54097/83j64ub9>
- [6] **Mettler, T. (2024)** *The connected workplace: Characteristics and social consequences of work surveillance in the age of datification, sensorisation, and artificial intelligence*. Journal of Information Technology, 39(3), 547–567. <https://doi.org/10.1177/02683962231202535>
- [7] **Papagiannidis, E., Mikalef, P., & Conboy, K. (2025)** *Responsible artificial intelligence governance: A review and research framework*. The Journal of Strategic Information Systems, 34(2), 101885. <https://doi.org/10.1016/j.jsis.2024.101885>
- [8] **Djunaedi, H. (2024)**. *AI as Employee Performance Evaluation: An Innovative Approach in Human Resource Development*. Power System Technology, 48(1), 2008–2021. <https://doi.org/10.52783/pst.469>
- [9] **Durairaj, M., & Vetrivel, V. (2024)**. *The Effect of AI (Artificial Intelligence) in Employee Performance Evaluation on Employee Retention in the Information Technology Sector*. Advances in Economics, Business and Management Research, 275, 88–108. https://doi.org/10.2991/978-94-6463-560-5_9
- [10] **Van Fleet, D. D., Peterson, T. O., & Van Fleet, E. W. (2022)**. *Filling the Performance Gap: Overcoming the Bambi Effect*. Journal of Human Resource and Sustainability Studies, 10(2), 291–303. <https://doi.org/10.4236/jhrss.2022.102018>
- [11] **Hunkenschroer, A. L., & Kriebitz, A. (2023)**. *Is AI Recruiting (Un)Ethical? A Human Rights Perspective on the Use of AI for Hiring*. AI and Ethics, 3, 199–213. <https://doi.org/10.1007/s43681-021-00109-9>
- [12] **Nyathani, R. (2023)**. *AI in Performance Management: Redefining Performance Appraisals in the Digital Age*. Journal of Artificial Intelligence & Cloud Computing, 2(4), 1–5. [https://doi.org/10.47363/JAICC/2023\(2\)134](https://doi.org/10.47363/JAICC/2023(2)134)
- [13] **Bhalla, S., & Suribabu, J. (2024)**. *Optimising Human Resource Management: The Impact of AI on Recruitment, Onboarding, and Employee Engagement*. Journal of Informatics Education and Research, 4(3), 460–472. <https://doi.org/10.52783/jier.v4i3.1337>
- [14] **Pammer-Schindler, V., & Rosé, C. (2022)**. *Data-Related Ethics Issues in Technologies for Informal Professional Learning*. International Journal of Artificial Intelligence in Education, 32(3), 609–635. <https://doi.org/10.1007/s40593-021-00259-x>
- [16], [18] **Cai, Y., & Wang, C. (2024)**. *Effect of Transparency of Algorithmic Performance Management on Proactive Work Behaviour*. International Journal of Asian Business and Information Management, 15(1), 348062. <https://doi.org/10.4018/IJABIM.348062>
- [17], [19] **Langer, M., & König, C. J. (2023)**. *Introducing a Multi-Stakeholder Perspective on Opacity, Transparency and Strategies to Reduce Opacity in Algorithm-Based Human Resource Management*. Human Resource Management Review, 33(1), 100881. <https://doi.org/10.1016/j.hrmr.2021.100881>
- [20] **Lim, T. P., & Ravesangar, K. (2025)**. *The Integration of AI in Performance Appraisal: Balancing Automation With Human Judgment*. In Artificial Intelligence in Peace, Justice, and Strong Institutions, 321–352. IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-9395-6.ch015>
- [21] **Madanchian, M., & Taherdoost, H. (2025)**. *Barriers and Enablers of AI Adoption in Human Resource Management: A Critical Analysis of Organisational and Technological Factors*. Information, 16(1), 51. <https://doi.org/10.3390/info16010051>
- [22] **Schechter, A., & Li, W. (2025)**. *A Robust Optimization Approach to Reliable Statistical Inference with Variables Generated by Machine Learning*. Information Systems Research. <https://doi.org/10.1287/isre.2023.0340>