RESPONSIBLE AI LEADERSHIP IN HRM 5.0: ETHICAL, MANAGERIAL, AND REGULATORY FOUNDATIONS OF ALGORITHMIC DECISIONS

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Abstract. The article conceptualizes responsible AI leadership as a core dimension of HRM 5.0 under the growing algorithmization of human resource processes. The purpose of the study is to substantiate the ethical, managerial, regulatory, and economic foundations of responsible AI leadership by combining the human-centered logic of HRM 5.0 with the requirements of algorithmic fairness and the legal obligations associated with high-risk AI systems in employment. The methodological framework integrates systems analysis, comparative analysis, conceptual synthesis, and legal interpretation of academic literature published between 2020 and 2026, along with the provisions of the EU AI Act. The study argues that responsible AI leadership should not be treated as an auxiliary digital skill for HR managers, but rather as an integrative managerial capability that enables ethical design, implementation, interpretation, and auditing of algorithmic decisions that affect employees and candidates. The paper identifies the key dimensions of algorithmic justice, explains the systemic sources of algorithmic bias across the AI lifecycle, and outlines the managerial functions of HR leaders related to accountability, human oversight, employee protection, and AI literacy development. In addition, the article highlights the economic implications of responsible AI leadership, demonstrating its role in reducing the cost of algorithmic bias, lowering transaction and compliance costs, improving the accuracy and efficiency of HR decisions, and strengthening organizational competitiveness. The article's originality lies in proposing an integrated model of responsible AI leadership in HRM 5.0 that combines human-centredness, algorithmic fairness, AI governance, regulatory compliance, and economic efficiency. The practical value of the study lies in providing a conceptual basis for organizational policies on responsible AI use in HR, leadership development programs, and diagnostic tools for assessing the readiness and maturity of HRM ecosystems for ethically and economically sustainable algorithmic decision-making

Keywords: responsible AI leadership; HRM 5.0; algorithmic fairness; AI Act; digital HRM; human-centered management.

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Introduction

The rapid diffusion of algorithmic systems in recruitment, performance management, career planning, talent management, and HR analytics is transforming not only the technological contours of human resource management but also the very nature of managerial responsibility. Earlier phases of digitalization were primarily focused on automation and operational efficiency. Today, however, the central question is who is accountable for decisions produced or supported by an algorithm. In this context, HRM 5.0 is increasingly interpreted as a human-centered model in which digital technologies should reinforce rather than displace professional judgment and ethical reflexivity through transparency, fairness, and accountability (Adisa, 2024; Capolupo et al., 2025; Kravchuk, 2025).

At the same time, responsible AI leadership has clear economic implications that extend beyond ethical and managerial considerations. By shaping the quality, reliability, and legitimacy of algorithmic HR decisions, it directly influences labor productivity, organizational efficiency, transaction costs in HR processes, and the strategic competitiveness of enterprises. Reducing the economic cost of algorithmic bias, strengthening the accuracy of talent-related decisions, and preventing resource losses associated with flawed or opaque AI-supported practices position responsible AI leadership as a key driver of sustainable enterprise development within the broader economic logic of HRM 5.0. From an economic perspective, irresponsible deployment of AI in HRM generates measurable costs – litigation exposure under the AI Act, productivity losses from biased selection, reputational and turnover costs, and inefficient allocation of human capital. Conversely, responsible AI leadership functions as an intangible organizational capability that lowers the transaction costs of compliance, supports labor-market efficiency at the firm level, and contributes to strategic competitiveness in the digital economy.

Recent studies demonstrate that artificial intelligence in people management cannot be treated merely as a technical tool for optimization. Algorithmic systems are embedded in HR decisions of high social significance and influence access to employment, development opportunities, reward, internal mobility, and retention. This explains the growing scholarly interest in algorithmic fairness, computational unfairness, explainability, human oversight, and the changing role of leadership in AI-mediated management of people (Rodgers et al., 2023; Capasso et al., 2024; Kim et al., 2025).

A separate stream of literature now focuses on digital and AI-mediated leadership. These studies show that leadership effectiveness in AI-driven organizations depends not only on technological literacy but also on the ability to combine strategic vision, ethical sensitivity, adaptability, and the capability to explain complex AI-supported HR decisions in organizational settings (Aziz et al., 2025; Hossain et al., 2025). However, an important conceptual gap remains at the intersection of digital leadership, AI-enabled HRM, and HRM 5.0. While the literature discusses individual risks of algorithmization, it pays much less attention to the integrated managerial role of the HR leader as the agent of ethical AI stewardship.

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The issue becomes even more important considering the regulatory turn associated with the EU AI Act. The regulation classifies several AI systems used in recruitment, selection, worker management, and access to self-employment as high-risk systems, thereby moving ethics and fairness from the domain of voluntary principles to the sphere of legally meaningful obligations (European Parliament & Council of the European Union, 2024). Accordingly, the HR leader is expected not only to initiate digital transformation but also to ensure the lawful, transparent, and human-centric use of algorithmic systems in employment.

The purpose of the article is to conceptualize responsible AI leadership in HRM 5.0 and to substantiate its ethical, managerial, and regulatory foundations. To achieve this purpose, the study: identifies the place of responsible AI leadership within the HRM 5.0 paradigm; systematizes the ethical dimensions of algorithm-mediated personnel decisions; explains the sources of systemic algorithmic distortion; analyzes the regulatory implications of the AI Act for HR practice; and defines the managerial functions of HR leaders in a system of accountable AI management.

Literature Review

Scientific debate about the place of artificial intelligence in contemporary HRM unfolds, first, around the meaning of HRM 5.0 itself. One line of research interprets HRM 5.0 as another phase of digitalization in which technologies strengthen flexibility, automation, and operational efficiency (Adisa, 2024; Capolupo et al., 2025). Another line of argument holds that HRM 5.0 cannot be reduced to a technological upgrade of HR processes and should instead be understood as a human-centric digital ecosystem in which AI tools are subordinated to human development, well-being, inclusion, and organizational resilience (Kravchuk et al., 2024; Kravchuk, 2025; Kravchuk, 2026). This distinction marks the difference between technocratic and people-first interpretations of HR transformation.

A similar tension can be observed in studies of algorithmic HRM. Meijerink et al. (2021) describe algorithmic HRM as an interdisciplinary phenomenon that integrates analytics, automation, and algorithmic management of labor within AI-enabled HRM. Kim et al. (2025) extend this perspective by showing that strategic HRM in the age of algorithmic technologies must account not only for productivity gains but also for consequences for power, trust, and the architecture of personnel decisions. At the same time, the bibliometric study by Bauwens and Batistič (2025) reveals that AI in people management is a rapidly expanding but still fragmented field, especially at the intersection of HRM, ethics, and leadership. Hence, the literature acknowledges the strategic importance of algorithmization, but does not yet provide a comprehensive model of ethically grounded leadership action within HRM 5.0.

The sharpest controversy concerns the ethics and fairness of AI-supported HR decisions. Hunkenschroer and Luetge (2022), Rodgers et al. (2023), Capasso et al. (2024), and Rigotti and Fosch-Villaronga (2024) emphasize the risks of discrimination, opacity, loss of autonomy, threats to labor rights, and legal uncertainty associated with algorithm-mediated recruitment and selection. Fabris et al. (2025) demonstrate that research on fair hiring has become a multidisciplinary

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field in which technical fairness metrics do not coincide automatically with legal or social understandings of a fair decision. Bandara et al. (2025) and Naoum et al. (2026) further show that computational unfairness in HRM should be understood not as an isolated technical error but as a systemic risk that affects the effectiveness of strategic HRM and diversity, equity, and inclusion. Empirical studies by Ochmann et al. (2024) and Tandon et al. (2024) add another layer to the debate by showing that even when a model is formally accurate, user perceptions of transparency, fairness, and the possibility of human intervention shape acceptance of digital HR judgments.

Another cluster of studies focuses on people analytics and AI governance. Gal et al. (2020) propose a virtue ethics perspective, arguing that the challenge of algorithmization lies not only in data control but also in the moral quality of managerial decisions based on analytics. Tursunbayeva et al. (2022) and Giermindl et al. (2022) stress the dark sides of people analytics, including privacy intrusion, deepening power asymmetries, reduction of employees to metrics, and the erosion of trust. By contrast, Bar-Gil et al. (2024) show that ethical risks can be partially embedded in the design of HR and analytics projects through review boards, governance procedures, and ethical checkpoints, although this governance logic often remains technically centered rather than explicitly employee-centred.

Leadership studies also provide no clear consensus on how the leader's role in AI-driven organizations should be conceptualized. Aziz et al. (2025) describe AI-powered leadership as a new research direction that calls for reconsideration of classical models of influence, whereas Hossain et al. (2025) frame digital leadership as dynamic managerial capabilities in the context of AI. Meanwhile, Regulation (EU) 2024/1689 categorizes a range of HR decisions as high-risk systems. Still, it does not explain how to integrate compliance, fairness, people analytics, and human-centeredness into everyday HR work (European Parliament & Council of the European Union, 2024). This gap justifies the present article's contribution: integrating insights from HRM 5.0, algorithmic HRM, people analytics, AI ethics, and digital leadership into the concept of responsible AI leadership as a managerial metacompetence.

Methodology

The study is conceptual and analytical. Its methodological foundation combines systemic, comparative, and regulatory-legal approaches, as well as the method of conceptual generalization. The systemic approach enabled the examination of responsible AI leadership as a component of the HRM 5.0 architecture, in which technological solutions, managerial practices, organizational culture, value orientations, and regulatory constraints are interrelated. A comparative analysis juxtaposed contemporary scholarly approaches to digital leadership, AI-enabled HRM, AI governance, and algorithmic fairness, enabling identification of common assumptions, differences, and unresolved aspects of the problem. Regulatory and legal analysis was applied to interpret the provisions of Regulation (EU) 2024/1689 concerning high-risk AI systems relevant to employment and people management.

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The conceptual synthesis method enabled the development of an integrated model of responsible AI leadership in HRM 5.0. The study is based on academic publications from 2020 to 2026, primarily articles indexed in Scopus, the official text of Regulation (EU) 2024/1689, and works addressing HRM 5.0, algorithm-mediated HRM, people analytics, algorithmic fairness, AI governance, and digital leadership. This methodological approach enabled the integration of the conceptual, ethical, managerial, and regulatory dimensions of the problem into a single analytical framework.

Results

Responsible AI leadership as a human-centered metacompetence of HRM 5.0

Responsible AI leadership is the integrative managerial capability of an HR leader to initiate, design, implement, interpret, and supervise the use of AI systems in employment, grounded in human-centredness, ethical responsibility, legality, and strategic relevance. This definition goes beyond mere familiarity with digital tools or a general willingness to support innovation. At its core is the leader's ability to ensure that algorithmic systems are embedded in HR processes in ways that do not undermine trust, replace professional judgment, or weaken the legal and moral status of the individual as a subject of employment relations. For this reason, responsible AI leadership should be considered one of the key metacompetences of HRM 5.0, in which technology is subordinated to human development rather than the other way around.

Unlike a purely technocratic view of digital leadership, responsible AI leadership comprises at least four interrelated dimensions. The first is strategic and concerns the leader's ability to determine which HR tasks are justified for AI and where its use creates excessive risk. The second is ethical and concerns the ability to identify and prevent unfair consequences of AI-supported HR decisions. The third is organizational and presupposes the design of policies, processes, and roles required for accountable AI management. The fourth is educational and cultural, as leaders must cultivate AI literacy, critical data use, and reflective human-algorithm interaction among HR teams and managers (Aziz et al., 2025; Hossain et al., 2025; Kravchuk, 2026).

Within HRM 5.0, this construct takes on particular significance. The people-first character of HRM 5.0 means that the effectiveness of an HR decision should be judged not only by speed, scale, or predictive accuracy, but also by its impact on dignity, trust, engagement, development opportunities, and psychological safety. Responsible AI leadership, therefore, serves as the connecting layer between the technological infrastructure of AI-enabled HRM and the value architecture of the human-centric organization. Without such mediation, algorithmic systems risk becoming instruments of administrative control that contradict the logic of HRM 5.0 as an ecosystem for developing human potential (Kravchuk, 2025; Kravchuk, 2026; Capolupo et al., 2025).

Ethical architecture of algorithmic decisions in people management

The ethical foundations of algorithmic decisions in HRM 5.0 cannot be reduced to a general call to "use AI responsibly." In HR practice, specific dimensions of fairness

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are needed to evaluate both the decision process and its consequences. A synthesis of recent scholarship suggests four such dimensions: procedural fairness, distributive fairness, interactive fairness, and accountability. Procedural fairness refers to clear criteria, consistent application of algorithms, and the ability to explain how a system arrived at its conclusion. Distributive fairness concerns whether the system produces systematically worse outcomes for specific groups. Interactive fairness captures whether individuals experience the process as respectful of their dignity and whether they have a voice in it. Accountability requires a clear answer to who is responsible for the consequences of an algorithm-mediated decision and how that decision can be reviewed (Rodgers et al., 2023; Capasso et al., 2024; Fabris et al., 2025).

For HR functions, this multidimensionality is critical because the dimensions do not coincide automatically. An algorithm may be procedurally consistent yet distributively unfair; it may exhibit acceptable statistical performance but still undermine trust because of opacity or the absence of appeal mechanisms. Consequently, a responsible HR leader should evaluate AI systems not only by predictive metrics but by their fit with a broader ethical architecture. This changes the logic of HR analysis itself: instead of asking only whether a system "works," the more relevant question becomes for whom, under what conditions, and with what consequences it works.

In practice, the deployment of AI in recruitment, performance appraisal, or talent management should be accompanied by predefined requirements for transparency, human oversight, grievance channels, periodic review of criteria, and ethical communication with employees and candidates. Thus, ethics in algorithmic HRM is not an external add-on to a digital system but an internal characteristic of how the system is designed and used.

The key ethical dimensions of AI-driven decisions in HRM are systematized in Table 1.

Table 1. **Ethical dimensions of algorithmic decisions in HRM 5.0**

Dimension	Content	Key risk	Leadership mechanism
Procedural fairness	Understandable criteria, consistency of the algorithm, possibility of explanation	Opacity of evaluation logic	Explainability, documented criteria, and communication
Distributive fairness	Absence of systematically worse outcomes for particular groups	Hidden discrimination and unequal consequences	Group-based outcome monitoring, fairness audit
Interactive fairness	Respect for human dignity, the right to voice, and human support	Dehumanization of HR procedures	Feedback channels, human explanation
Accountability	Clear identification of the responsible actors and the possibility of review	Blurring of responsibility between manager and algorithm	Documentation, traceability, and appeal procedure

Source: compiled by the author based on Rodgers et al. (2023), Capasso et al. (2024), Fabris et al. (2025), and Rigotti and Fosch-Villaronga (2024).

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As Table 1 shows, fairness in algorithmic HRM is multidimensional and cannot be reduced to predictive accuracy alone. This leads directly to the next point: if fairness depends on the whole decision architecture, then algorithmic bias must be understood as a systemic rather than a purely technical problem.

Algorithmic bias as a systemic risk of algorithmic HRM

Algorithmic bias is the central risk of AI use in employment. Recent studies show that it does not emerge in a single narrow technical point but develops across the full lifecycle of the system — from problem definition and the selection of historical data to the interpretation of outputs and their subsequent use in people management (Bandara et al., 2025; Naoum et al., 2026). One major source of bias lies in data: historical datasets often reflect past discriminatory practices, so an algorithm trained on them reproduces inequality under the appearance of objectivity. A second source lies in proxy variables, when formally neutral indicators, such as gaps in experience, place of residence, career patterns, or language markers, indirectly substitute for sensitive characteristics. A third source is embedded in optimization targets: when organizations define a "successful candidate" through narrow short-term productivity indicators, systems may systematically filter out atypical but promising profiles.

Attention should also be given to contextual and intersectional bias. An algorithm may not display obvious discrimination based on a single characteristic in isolation, but may still generate unfavorable outcomes for people at the intersection of several social characteristics. Moreover, even a technically correct model can change its social effect depending on how it is used in an organization: whether recommendations are advisory or effectively final, whether managers have the authority and competence to deviate from them, and whether those affected by the decision have any opportunity for feedback. In this sense, bias is not only a property of the model but of the wider management system in which the model operates.

For the HR leader, this means moving from one-off model testing to continuous auditing of outcomes. Such auditing should include checks of data quality, monitoring of result distributions across groups, examination of proxy variables, analysis of how managers use algorithmic recommendations, and identification of feedback effects through which the system begins to reproduce its own biased patterns. Hence, computational unfairness mitigation requires not only technical adjustments but also managerial decisions concerning data policies, role allocation, review procedures, and a culture of critical engagement with analytics.

In HRM 5.0, systemic algorithmic distortion should therefore be interpreted as a strategic-level risk. Its consequences include not only flawed selection or appraisal decisions but also lower trust in the HR function, reputational damage, legal exposure, lower employee engagement, and weaker legitimacy of managerial action. Responsible AI leadership must consequently combine preventive and corrective logics in the governance of algorithmic risk.

AI Act and the regulatory reframing of the HR leader's role

The regulatory dimension of responsible AI leadership has become significantly stronger after the adoption of the EU AI Act. Under this framework, AI systems intended for recruitment and selection, application screening, employee evaluation,

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decisions on working conditions, promotion, termination, task allocation, and worker monitoring are classified as high-risk systems within the domain of employment, worker management, and access to self-employment (European Parliament & Council of the European Union, 2024). This classification is fundamental for HRM because it means that algorithm-mediated HR decisions can no longer be seen as purely internal matters, subject solely to organizational discretion.

Requirements for high-risk systems include risk management, appropriate data quality, technical documentation, event logs, transparency and user information, effective human oversight, and adherence to standards of accuracy, robustness, and cybersecurity. For deployer organizations, this implies documented procedures for AI use, clear allocation of roles and responsibilities, verification that the model is used within its intended scope, and the ability to justify decisions in the event of a complaint or inspection. In other words, the AI Act shifts the responsible use of AI in HR from the realm of soft ethics to that of organizational governance.

For the HR leader, the regulatory significance of the AI Act appears in at least three planes. The first is design: HR leaders should participate in selecting vendors, defining system requirements, choosing admissible data, and determining scenarios of human oversight. The second is procedural: organizations need internal rules for assessing, explaining, and appealing AI-driven HR outcomes. The third is cultural and communicative: employees and candidates must understand when and how algorithms are used, the limits of automation, and their rights when they disagree with a decision. Thus, the regulatory imperative reinforces the thesis that responsible AI leadership is not a voluntary virtue but a new standard of the HR manager's professional role.

At the same time, regulatory compliance alone does not exhaust the requirements of responsible leadership. Formal adherence to legal obligations does not guarantee that a system will be perceived as fair or that its use will be experienced as human-centric. The AI Act should therefore be interpreted as a minimum threshold of responsibility. In contrast, the real maturity of HRM 5.0 begins when legal requirements are integrated into the organization's value architecture, managerial processes, and interaction culture.

Managerial functions of responsible AI leadership

Based on the analysis, five core managerial functions of responsible AI leadership in HRM 5.0 can be identified. The first is ethical design, which involves the HR leader in defining which HR tasks may be automated, what evaluation criteria will be used, what data are acceptable, and where the limits of AI use should be drawn. The second is audit, which requires systematic testing of models for bias, drift, and real effects on different groups of employees and candidates. The third is accountability, which concerns documentation of decisions, clarification of roles, traceability, and readiness to explain results. The fourth is protection and representation, which means supporting employees' and applicants' rights to request a review and receive a human explanation. The fifth is capability development, through which the leader cultivates

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AI literacy, critical data use, and the capacity to work meaningfully in human-machine environments.

These functions should not be interpreted as isolated activities. Their significance lies in their coordinated implementation, which enables organizations to move from situational responses to AI risks to systemic governance of algorithm-mediated decisions. In that sense, responsible AI leadership is not just another issue within digital ethics; it is an organizational mechanism through which trust, fairness, and readiness for more advanced forms of human–algorithm collaboration are produced.

The relationship between the core functions of responsible AI leadership and their practical implementation mechanisms is summarised in Table 2.

Table 2. **Core functions of responsible AI leadership in HRM 5.0**

Function	Area of application	Practical tools	Expected outcome
Ethical design	Selection of HR tasks for automation, criteria, and boundaries of use	AI policy; data map; evaluation criteria	Alignment of the model with organizational values and goals
Audit	Testing systems for bias, drift, and disproportionate outcomes	Fairness metrics; regular review; data checks	Reduction of algorithmic risks
Accountability	Assignment of roles and responsibilities	Logs, decision trace, approval workflow	Traceability and explainability
Protection and representation	Handling appeals of employees and candidates	Appeal channels: human review; explanation protocol	Higher trust and procedural legitimacy
Capability development	Preparation of HR teams and managers for AI use	AI literacy, training, and ethical guidelines	HRM 5.0 maturity and critical use of data

Source: compiled by the author based on Aziz et al. (2025), Hossain et al. (2025), European Parliament & Council of the European Union (2024).

The managerial functions outlined above demonstrate that responsible AI leadership operates not only as an ethical and regulatory construct but also as a practical governance mechanism that structures how algorithmic systems are designed, monitored, and used in HRM. To illustrate how these functions translate into applied organizational practices, two analytical tools are presented below: a comparison of AI Act requirements with typical HR AI governance practices (Table 3) and a readiness matrix for assessing the maturity of HRM 5.0 in responsible AI use (Table 4). These tools provide a minimal applied component that complements the conceptual model and supports its practical operationalization.

The comparison in Table 3 demonstrates that while many organizations adopt AI tools in HRM, their governance practices often lag behind the regulatory standards set for high-risk systems. This discrepancy reinforces the need for responsible AI leadership as a managerial capability that bridges the gap between compliance, ethical design, and operational practice. The readiness matrix in Table 4 provides a structured framework for assessing an organization's progress toward HRM 5.0 maturity. It highlights that responsible AI leadership evolves from fragmented, ad hoc practices to a strategic capability that enhances efficiency, fairness, and competitiveness.

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Table 3. **Comparison of AI Act requirements and typical HR AI governance practices**

Aspect	AI Act requirements for high-risk HR systems	Typical HR AI governance practices	Gap/implication
Data quality	Strict requirements for representativeness, accuracy, and bias prevention	Basic data cleaning; limited bias checks	Risk of biased outcomes and legal exposure
Documentation	Mandatory technical documentation, logs, and traceability	Fragmented documentation; vendor-dependent	Low auditability and weak accountability
Human oversight	Defined oversight mechanisms; ability to override AI	Informal managerial review	Inconsistent human control and unclear responsibility
Transparency	Mandatory user information and explanation duties	Limited disclosure to candidates/employees	Lower trust and higher reputational risks
Risk management	Continuous monitoring, incident reporting	Occasional model review	Insufficient risk mitigation and compliance gaps

Source: compiled by the author based on Regulation (EU) 2024/1689.

Table 4. **HRM 5.0 readiness levels for responsible AI use**

Level	Characteristics	Risks	Indicators of progress
Level 1 — Ad hoc	No AI governance; fragmented HR digitalization	High bias risk; no accountability	Absence of policies; no audits
Level 2 — Procedural	Basic policies, partial oversight, vendor-driven implementation	Inconsistent fairness; weak transparency	Initial documentation; basic training
Level 3 — Integrated	Ethical design, audits, oversight, and appeal mechanisms embedded in HR processes	Reduced bias; improved trust	Regular fairness checks; clear roles
Level 4 — Strategic	Responsible AI leadership is fully institutionalized; AI is aligned with enterprise strategy.	High efficiency; competitive advantage	Continuous monitoring; strategic KPIs

Source: developed by the author.

Economic implications of responsible AI leadership

The managerial functions of responsible AI leadership have direct economic consequences for enterprise development. By improving the quality, consistency, and legitimacy of algorithmic HR decisions, responsible AI leadership reduces the economic losses associated with biased or inaccurate talent-related predictions. More accurate selection, appraisal, and mobility decisions decrease the probability of costly hiring errors, lower turnover, and support more efficient allocation of human capital, thereby strengthening overall labor productivity.

From a cost-efficiency perspective, responsible AI leadership mitigates the financial risks associated with algorithmic bias, including litigation exposure under the AI Act, reputational damage, and productivity losses caused by unfair or opaque decision-making. The establishment of clear oversight mechanisms, documentation

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practices, and audit procedures also reduces transaction costs of compliance and lowers the administrative burden associated with monitoring high-risk AI systems.

Furthermore, responsible AI leadership enhances the effectiveness of people analytics by ensuring that data inputs, evaluation criteria, and model outputs are aligned with organizational goals rather than short-term optimization metrics. This alignment increases the strategic value of HR analytics, supports evidence-based workforce planning, and contributes to the enterprise's long-term competitiveness and economic sustainability. In this sense, responsible AI leadership functions not only as an ethical and regulatory requirement but also as an economic capability that reinforces the strategic resilience of HRM 5.0 systems.

Integrated Model of Responsible AI Leadership in HRM 5.0

Together, the two tables and the economic analysis above provide an applied foundation for understanding how responsible AI leadership operates within HRM 5.0. They demonstrate that ethical, managerial, and regulatory functions are not abstract principles but mechanisms that shape the economic efficiency, fairness, and strategic sustainability of algorithmic HR systems. These insights create the basis for the integrated model presented in Figure 1, which synthesizes the inputs, leadership mechanisms, and organizational outcomes of responsible AI use.

Figure 1 illustrates how responsible AI leadership mediates among the organization's human-centered value architecture, the governance requirements for high-risk AI systems, and the practical implementation of algorithmic HR decisions.

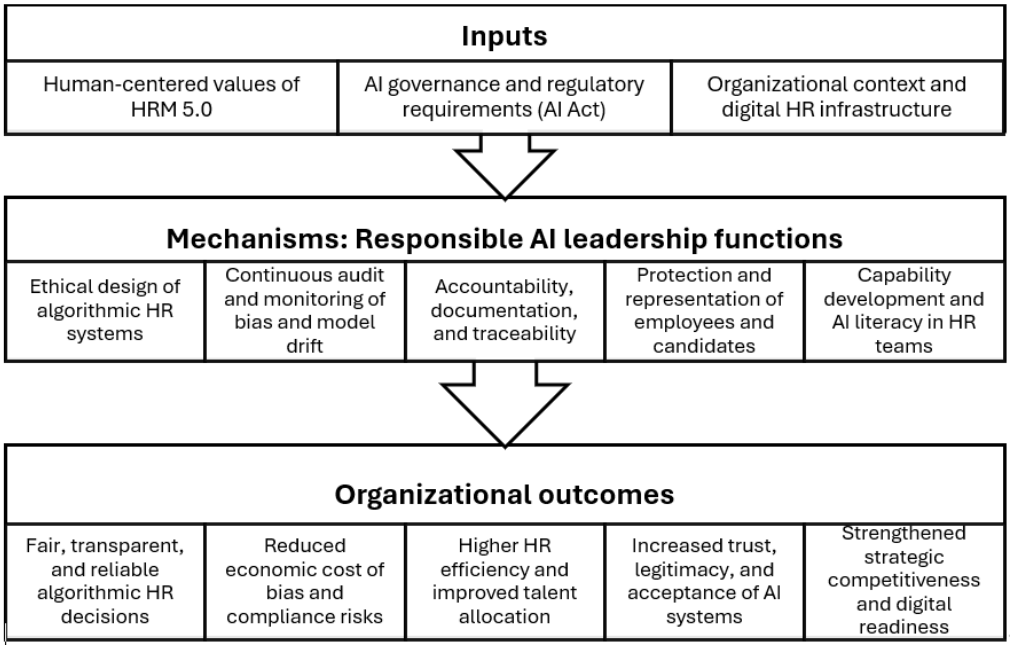

Figure 1. **Integrated Responsible AI Leadership Model in HRM 5.0**

Source: constructed by the author.

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By linking these elements, responsible AI leadership functions as an organizational capability that transforms ethical and regulatory expectations into trust, legitimacy, compliance, and digital readiness. This provides a logical transition to the discussion of how the proposed model extends and refines existing research.

Discussion

The findings extend existing understandings of AI in people management. While Meijerink et al. (2021), Kim et al. (2025), and Bauwens and Batistič (2025) focus mainly on describing algorithmic HRM as a new phase of digital HR or on mapping the field of AI in people management, the present article moves from phenomenological description to an integrated managerial framework centered on the HR leader as the agent of ethical, organizational, and regulatory governance of algorithm-mediated decisions. In this sense, the proposed approach does not contradict previous conclusions about AI's strategic potential. Still, it adds the claim that, without a human-centric leadership layer, HRM's digital maturity remains incomplete.

Beyond its conceptual contribution, the model proposed in this article also clarifies the economic logic of responsible AI leadership. By linking ethical design, oversight, and accountability with the quality and reliability of HR decisions, responsible AI leadership reduces transaction costs in recruitment and evaluation, mitigates the economic losses associated with algorithmic bias, strengthens labor productivity through more accurate talent allocation, and enhances organizational competitiveness by increasing trust in AI-supported processes. These mechanisms demonstrate that responsible AI leadership is not only a normative requirement but also an economically consequential capability that shapes the efficiency and sustainability of enterprise development.

Compared with studies that examine ethics primarily through fairness metrics, legal risks, or user perceptions, the article's contribution lies in integrating these lines of inquiry into one model of responsible AI leadership. Unlike Hunkenschroer and Luetge (2022), Rodgers et al. (2023), Capasso et al. (2024), Fabris et al. (2025), Bandara et al. (2025), Naoum et al. (2026), or Rigotti and Fosch-Villaronga (2024), who respectively emphasize recruiting ethics, ethical frameworks, the right to work, fairness-and-bias surveying, DEI implications, or legal dimensions of recruitment, this study shows that these issues share a common managerial denominator: the need for permanent human oversight, accountability, review rights, and built-in ethical design. At the same time, empirical findings by Ochmann et al. (2024) and Tandon et al. (2024) on transparency, anthropomorphism, uncertainty, and user acceptance support the article's argument that trust in AI-enabled HRM systems is shaped not only by model quality but also by the interactional conditions created by the organization.

The results also refine the debate on people analytics and AI ethics. Unlike the virtue-ethics approach of Gal et al. (2020) and the critical reviews by Tursunbayeva et al. (2022) and Giermindl et al. (2022), where attention is concentrated on moral risks and the dark sides of analytics, the article argues that these risks should be institutionalized within the functions of the HR leader rather than remain general warnings. Compared with Bar-Gil et al. (2024), who demonstrate how ethics may be

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embedded into HR and analytics projects through governance practices, the present study takes a further step by shifting the center of responsibility from the project to the leadership role itself and by linking ethical design, audit, accountability, protection, and capability development in a single model of ethical AI stewardship.

The article is also connected to the author's previous body of work. Earlier studies on HR marketing digital technologies and HR management digitalization outlined the technological vectors of HR transformation, whereas the publications on the digital ecosystem of HRM 5.0 and human-centric digital leadership established the conceptual foundations of human-centered digital transformation in HRM (Kravchuk et al., 2024; Kravchuk, 2025; Kravchuk, 2026). The present article advances this trajectory by specifying the leadership architecture required for responsible AI use in personnel decisions. The author's contribution, therefore, lies in proposing an integrated model of responsible AI leadership in HRM 5.0 that combines human-centeredness, computational fairness, AI governance, and regulatory compliance, and that may serve as a basis for the future operationalization of indicators of digital readiness and maturity in HRM systems.

Conclusions

This article treats responsible AI leadership not as an auxiliary extension of digital management, but as a substantive component of HRM 5.0. In the context of algorithmic people management, the HR leader's role extends beyond technology adoption to encompass responsibility for how automated systems shape decisions on recruitment, evaluation, development, and career opportunities. For that reason, responsible AI leadership is understood here as a managerial capability that integrates strategic judgment, ethical reflection, organizational governance, and legal awareness.

The analysis shows that the quality of AI-supported HR decisions cannot be assessed solely by accuracy. It depends on whether decision processes are understandable, whether outcomes are fair across groups, whether individuals are treated with dignity in their interactions with the system, and whether responsibility for the decision remains identifiable. The article also demonstrates that computational unfairness in AI-enabled HRM is embedded in the wider socio-technical configuration of data, proxies, optimization logics, implementation settings, and recursive feedback effects. This renders episodic technical validation insufficient and places continuous oversight at the center of accountable AI management.

The regulatory dimension further reinforces this shift in the HR leader's role. By classifying several AI applications in employment as high-risk, the EU AI Act turns responsible AI use from a matter of good practice into an organizational obligation. In this context, responsible AI leadership takes practical form through five interconnected functions: ethical design, auditing, accountability, protection, and capability development.

The article's contribution is to integrate these dimensions into a single conceptual model of responsible AI leadership in HRM 5.0. This model may serve as a basis for internal AI governance policies, HR team capability-building, and future tools to assess organizational readiness for ethically grounded algorithm-mediated HRM. Further research should translate the proposed framework into measurable indicators

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and examine its relationship with employee trust, perceived fairness, and the digital maturity of HRM ecosystems.

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Conflict of Interest
The author declares that there are no conflicts of interest regarding the publication of this paper.

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Data Availability
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Use of AI Tools
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ВІДПОВІДАЛЬНЕ ШІ-ЛІДЕРСТВО В HRM 5.0: ЕТИЧНІ, УПРАВЛІНСЬКІ ТА РЕГУЛЯТОРНІ ЗАСАДИ АЛГОРИТМІЧНИХ РІШЕНЬ

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Анотація. У статті концептуалізовано відповідальне ШІ-лідерство як ключовий вимір HRM 5.0 в умовах зростаючої алгоритмізації процесів управління людськими ресурсами. Метою дослідження є обґрунтування етичних, управлінських, регуляторних та економічних засад відповідального ШІ-лідерства шляхом поєднання людиноцентричної логіки HRM 5.0 з вимогами алгоритмічної справедливості та юридичними зобов'язаннями, пов'язаними з використанням високоризикових ШІ-систем у сфері зайнятості. Методологічну основу становлять системний і порівняльний аналіз, концептуальний синтез та правова інтерпретація наукових джерел 2020–2026 рр., а також положення Регламенту ЄС про штучний інтелект. У роботі доведено, що відповідальне ШІ-лідерство не може розглядатися як допоміжна цифрова компетентність HR-менеджера. Натомість воно є інтегративною управлінською здатністю, що забезпечує етичне проєктування, впровадження, інтерпретацію та аудит алгоритмічних рішень, які впливають на працівників і кандидатів. Стаття визначає виміри алгоритмічної справедливості, розкриває системні джерела алгоритмічної упередженості на всіх етапах життєвого циклу ШІ-систем та окреслює управлінські функції HR-лідерів, пов'язані з підзвітністю, людським наглядом, захистом прав працівників і розвитком ШІ-грамотності. Окрему увагу приділено економічним наслідкам відповідального ШІ-лідерства. Показано, що воно знижує витрати, пов'язані з алгоритмічною упередженістю, скорочує транзакційні та комплаєнс-витрати, підвищує точність і ефективність HR-рішень, сприяє продуктивності праці та зміцнює конкурентоспроможність підприємств. Наукова новизна статті полягає у запропонуванні інтегрованої моделі відповідального ШІ-лідерства в HRM 5.0, яка поєднує людиноцентричність, алгоритмічну справедливість, ШІ-урядування, регуляторну відповідність та економічну ефективність. Практична цінність дослідження полягає у формуванні концептуальної основи для організаційних політик відповідального використання ШІ у HR, програм розвитку лідерства та діагностичних інструментів оцінювання готовності HRM-екосистем до етично та економічно обґрунтованого алгоритмічного прийняття рішень.

***Ключові слова*:** відповідальне ШІ-лідерство; HRM 5.0; алгоритмічна справедливість; AI Act; цифровий HRM; людиноцентричне управління; управління людськими ресурсами.

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