

Artificial Intelligence Adoption and the Transformation of Human Resource Management Practices: A Comparative Study of the Education and Corporate Sectors

¹**Lucky Dubey**, Assistant Professor, Dev Bhoomi Uttarakhand University, dubey895@gmail.com

²**Dr. Sumedha Soni**, Assistant Professor, ICFAI Business School, Jaipur, sumedhasoni@iujaipur.edu.in

³ **Dr Anupama Asthana**, Assistant Professor, CDOE, Manipal University Jaipur
anupama.asthana@jaipur.manipal.edu

⁴**Dr. Preeti Mishra**, Professor, Department of Management, Babu Banarasi Das Institute of Technology and Management, Lucknow, U.P., preetimishra7sep@bbdnitm.ac.in

⁵**Swati Uniyal**, Assistant Professor, Dev Bhoomi Uttarakhand University, Dehradun somc.swati@dbuu.ac.in

⁶**Dr. Mamta Rani**, Associate Professor, Gitarattan International Business School,
Drmamtarani24@gmail.com

Abstract

AI is making a big impact on human resources (HR), changing the way recruiting and hiring, training and development, performance management, employee services, and workforce planning are done. While AI offers many benefits that improve efficiency, lead to better data-driven decision making, and increase the strategic capabilities of the HR sector, the implementation of this technology is not without its problems. In this conceptual paper, existing literature has been analyzed to observe the implementation of AI technology in HRM practices across the education institutions and corporate sector. By applying the Technology-Organization-Environment (TOE) model, the research investigates the effect of organizational environment, technological readiness, organizational capabilities, and institutional priorities on integration of AI in HR processes. It discusses the possible uses of AI in human resource management, requirements for using it in practice, and obstacles encountered when it is implemented into HRM in educational organizations and corporate business. This paper develops a conceptual framework that connects the context of the organization and the adoption of AI with four dimensions of HRM transformation: operational efficiency, effectiveness of decision-making, employee experience, and strategic capability of HRM. Responsible AI governance and human oversight are seen as important issues in creating fairness, transparency, privacy and accountability in HRM decisions. The paper provides a context-oriented perspective on AI-enabled HRM practices, which can be interesting and useful for educational administrators and corporate HR professionals and indicates the future perspective for empirical studies into the topic.

Keywords: Artificial intelligence; Human resource management; AI adoption; Education sector; Corporate sector; HRM transformation; Responsible AI.

1. Introduction

Artificial intelligence (AI) is changing the way human resource management (HRM) works in terms of how organizations recruit, train, assess, and keep employees. Automated resource using machine learning, natural language processing, predictive intelligence, and generative AI in HR has made it possible to do away with repetitive administrative tasks, make better decisions based on facts, and improve human resources planning. Thanks to that, the approach of AI-enhanced HRM is beyond just digitizing conventional processes but can be referred to as technology-driven managing of human resources in the organization (Strohmeier, 2022; Jatobá et al., 2023). Based on the research done, it appears that AI can help with a number of HR tasks like recruitment and selection, training and development, assessment, and employee retention, but there are also many questions regarding its implications for employers and HR specialists' roles (Verma et al., 2023).

AI can particularly help in recruitment and selection processes by screening systems that help deal with applications and identify appropriate candidates, training, and development by AI tools that enable personalized training programs, and workforce management with the help of predictive intelligence. Such mechanisms may lead to a better performance of the HR department, but the realization of this depends on the quality of the organizational data, adequateness of the technological tools, skills of the employees, and the purpose of AI. Strohmeier (2022) mentions the interdisciplinary nature of AI and HRM research indicating the necessity of combining technological innovations with the established ideas of HRM. It is worth noting that the authors (2023) claim that focusing on AI-enabled HRM requires more holistic organizational insights rather than isolated technological perspectives.

When analyzing the influence of AI on HRM in education and business spheres, it is essential to note that each of them functions in specific organizational circumstances characterized by academic autonomy of educational institutions/ organizations, faculty advancement, institutional accountability, administrative options, and resource provision. AI applications can facilitate recruitment, employee development, workload management, and HR service delivery in education. In business, AI technologies can be involved in a number of functions such as large-scale recruitment process, workforce analysis, performance evaluation, succession planning, and strategic talent management. Even though automation and data used for decision-making can help both sectors, there are specific differences influencing their use of AI, which should be taken into account. However, these differences do not imply that the outcomes within the sectors will be the same since has its own capabilities and readiness for implementation.

TOE model is a valuable theoretical background for investigating the factors influencing the use of AI technology in Saudi Arabia by organizations. It explains technology use in terms of the interaction of technology, organization, and the environment. It should be noted that in the context of HRM, the technological aspect includes infrastructure, compatibility and data quality, the organizational aspect comprises leadership, financial resources, human capital and change readiness, and the environmental aspect shapes regulatory and competitive environment. These factors might aid in

the explanation of why some organizations are faster than others in their adoption of AI technology and its application in HR functions. The results of the study conducted on AI-enabled HRM show that the decisions regarding the adoption of such technology must be analyzed in relation to organization's strategy, its capabilities for implementation, and the impact of the technology on employees (Jatobá et al., 2023; Verma et al., 2023).

Despite the growing number of studies associated with AI-enabled HRM technologies, the link between AI implementation and comprehensive transformation of the practices in HR field is still the topic that needs to be analyzed. While previous studies identified the areas of application of the modern technologies, challenges that arise in the HRM implementation, and possibilities that arise along with AI technologies, the recent literature highlighted some significant distinctions between the two sectors – educational and corporate. Thus, comparative studies should be more than just an outline of availability of such technologies in these two contexts. The study must investigate the way of how the organizational context influences the process of AI application for HR functions, to what extent this process will shift the functions performed in HRM, and what ethical elements concerning the influence of AI on employees exist. In particular, there is a need to pay attention to the correlation between technological efficiency and responsible human resource management because the implementation of AI technologies is subject to such issues as algorithmic bias, transparency, accountability, and employee trust (Bujold et al., 2024).

With respect to these factors, the current research is based on theoretical analysis of AI implementation in the field of HRM within educational organizations and corporate world. The objectives of the study are as follows: first, to determine leading HR functions that are subject to transformation owing to AI implementation; second, to analyze the technological, contextual, and organizational factors that have an influence on the implementation of AI; third, to summarize opportunities, challenges, and consequences of AI use for employees; fourth, to generate the theoretical framework to explain the connection between organizational context and AI implementation. The inclusion of these three important dimensions aims at creating the context-driven perspective on AI-enabled HRM. The last part of the article addresses the review of relevant literature, provisions of theory, and the findings of the comparative study, and presents the general conclusions about the usefulness of the newly proposed framework.

2. Literature Review and Theoretical Foundation

2.1. Artificial Intelligence Adoption in Human Resource Management

The integration of artificial intelligence (AI) into human resource management (HRM) represents a significant development in the digital transformation of organizational processes. AI-enabled technologies can support recruitment and selection, candidate screening, employee training, performance evaluation, workforce analytics, and talent management by processing large volumes of information and generating insights for HR decision-making. Kataria et al. (2024) provide a relevant foundation for understanding how technological integration is reshaping traditional HR

functions. Beyond automating routine administrative activities, AI adoption may also redefine the responsibilities, competencies, and strategic contributions of HR professionals.

The wider digitalization of HR processes further demonstrates how technological applications can influence employee-related systems and organizational practices. Sharma et al. (2024), through their systematic literature review of gamification in HR processes, highlight the relevance of innovative technology-enabled approaches to employee engagement and HR practices. Although gamification and AI represent distinct technological approaches, both illustrate the importance of aligning technology with organizational objectives and employee experience. Accordingly, AI adoption should not be evaluated solely in terms of technology availability. Its significance also depends on the extent to which AI applications are integrated into HR workflows, supported by organizational capabilities, and aligned with employee and organizational needs.

2.2. AI-Enabled Human Resource Management in the Education Sector

Educational institutions provide a distinctive context for examining AI adoption because their HRM practices operate within academic, administrative, and institutional governance structures. Potential applications include faculty recruitment, employee training, workload allocation, performance documentation, and responses to routine HR enquiries. These applications may improve administrative efficiency and support employee development. However, their implementation can be influenced by resource availability, institutional autonomy, digital infrastructure, and the willingness of faculty and administrative personnel to adopt new technologies.

Employee involvement and institutional relationships are also important considerations in educational settings. Arora and Sharma (2022), in their study of employee involvement in the Indian higher education sector, provide a contextual perspective for understanding the significance of employee perceptions and organizational relationships. Although this study does not directly establish the effects of AI adoption, it highlights the relevance of employee-related considerations when examining changes in HR practices. AI-enabled systems used for recruitment, performance assessment, or workforce planning must therefore be considered in relation to institutional expectations, procedural fairness, and employee trust. The successful integration of AI into educational HRM consequently requires a balance between administrative efficiency, institutional priorities, and the professional needs of academic and non-academic employees.

2.3. AI-Enabled Human Resource Management in the Corporate Sector

Corporate organizations may employ AI across several HR functions, including high-volume recruitment, predictive workforce analytics, personalized learning, performance monitoring, and talent management. These applications can facilitate the processing of extensive workforce data and provide analytical inputs to support managerial decision-making. Nevertheless, the extent and outcomes of AI adoption may vary according to organizational size, investment capacity, data quality, workforce characteristics, leadership support, and digital maturity.

Leadership and organizational culture are important contextual considerations in the implementation of HR innovations. Arora et al. (2024), in their case study of strategic HR leadership and high-performance culture at Patanjali, provide a relevant perspective on the relationship between HR strategy, leadership, and organizational performance. Although this study does not directly establish the effects of AI adoption, it helps situate technological integration within the broader context of organizational priorities and HR capability development. Corporate AI adoption should therefore be understood as an organizational change process rather than simply the acquisition of technological tools. Effective implementation requires alignment between AI applications, business objectives, HR strategy, employee competencies, and organizational governance.

2.4. Responsible AI and the Human Dimension of HRM

Despite its potential advantages, AI adoption in HRM raises concerns relating to data privacy, algorithmic bias, transparency, accountability, and employee trust. Employment-related decisions involving recruitment, promotion, performance evaluation, and employee retention can have significant consequences for individuals. Fairness, transparency, and meaningful human oversight are therefore essential considerations in the implementation of AI-enabled HR systems.

Bujold et al. (2024) examine responsible AI in HRM and emphasize the importance of considering ethical implications alongside technological developments. These concerns are relevant to both educational institutions and corporate organizations, although their practical implications may differ according to institutional governance arrangements, organizational policies, and the nature of employment decisions. For example, automated assessments of academic employees may need to accommodate diverse teaching, research, and institutional service responsibilities, whereas corporate systems may be used to support workforce monitoring, talent allocation, and performance-related decisions.

Responsible AI implementation also requires HR professionals to develop the competencies needed to interpret AI-generated recommendations, identify potential biases, and exercise independent judgment. AI should therefore function as a decision-support mechanism rather than an unquestioned substitute for professional accountability. A human-centred approach to AI-enabled HRM combines technological efficiency and analytical capability with employee welfare, procedural fairness, privacy, transparency, and appropriate opportunities for human review.

2.5. Theoretical Foundation: Technology–Organization–Environment Framework

The Technology–Organization–Environment (TOE) framework provides a theoretical basis for examining the factors influencing AI adoption in HRM. The framework explains technological adoption through three interrelated dimensions: technological characteristics, organizational conditions, and environmental influences. In the context of AI-enabled HRM, technological readiness encompasses digital infrastructure, system compatibility, data quality, and the suitability of available AI applications. Organizational readiness includes leadership support, financial resources, employee competencies, strategic alignment, and preparedness for organizational

change. Environmental influences may include regulatory requirements, stakeholder expectations, competitive pressures, and broader developments in digital transformation.

The TOE framework is particularly relevant to comparing the education and corporate sectors because organizations may differ in their technological resources, decision-making structures, strategic priorities, and governance requirements. Educational institutions may prioritize academic workforce requirements, faculty development, and institutional accountability, whereas corporate organizations may emphasize workforce scalability, talent competitiveness, and alignment with business strategy. These differences may influence the types of AI applications adopted and the manner in which they are integrated into HR functions.

In this study, the TOE framework is used to examine the contextual conditions associated with AI adoption and is conceptually extended to consider the relationship between adoption and HRM transformation. This extension connects technological, organizational, and environmental conditions with potential changes in operational efficiency, decision-making capability, employee experience, and strategic HR capability. Responsible AI governance is incorporated as a cross-cutting consideration to recognize that successful adoption requires attention to fairness, transparency, privacy, accountability, and human oversight.

2.6. Research Gap and Conceptual Direction

The reviewed literature provides insights into AI-enabled HRM, technology-supported employee practices, organizational leadership, and responsible AI implementation. However, these dimensions need to be integrated to develop a context-sensitive understanding of how organizational conditions may shape AI adoption and the transformation of HRM practices across different sectors. Educational institutions and corporate organizations represent distinct organizational settings in which AI may be applied to recruitment, employee development, performance management, employee services, and workforce planning under different institutional and managerial conditions.

The present study addresses this conceptual need by developing a framework linking organizational context, AI adoption, and HRM transformation while incorporating responsible AI governance and human oversight. Rather than assuming that one sector necessarily achieves greater benefits from AI than the other, the study examines how differences in technological readiness, organizational capabilities, workforce requirements, and institutional priorities may influence adoption and implementation. The proposed framework provides a basis for understanding potential sectoral differences in adoption priorities, implementation challenges, and employee-related outcomes. It also establishes a foundation for future empirical research to investigate the relationships among organizational readiness, AI adoption, HRM transformation, sectoral context, and responsible governance.

3. Research Methodology

3.1. Research Design

The research design adopted in this study is conceptual and is based on existing literature on artificial intelligence (AI) adoption and the changing landscape of human resource management (HRM) practices. Rather than collecting primary data, the study draws on published literature to identify key issues, including emerging trends, differences in implementation contexts, implementation barriers, and relationships among relevant concepts. This approach is appropriate because it enables the synthesis of diverse findings concerning AI-enabled HRM, technological adoption in organizations, employee outcomes, and the responsible use of AI.

3.2. Identifying and Selecting Literature

The literature identification process draws on published academic sources addressing AI in HRM, digital transformation in HR, organizational readiness, employment practices in the education sector, corporate HR strategies, and the responsible use of AI. Priority is given to peer-reviewed journal articles, systematic literature reviews, and studies relevant to the research objectives. The selected literature is examined to establish the theoretical foundation for the analysis.

The literature is evaluated according to its relevance to the research objectives, theoretical contribution, methodological transparency, and applicability to the education and corporate sectors. Studies examining AI applications in recruitment, employee training, performance evaluation, workforce analytics, and employee satisfaction are considered particularly relevant. Ethical concerns, including algorithmic bias, privacy, transparency, accountability, and human oversight, are also incorporated into the analysis to ensure that the potential benefits and limitations of AI-enabled HRM are considered (Bujold et al., 2024).

3.3. Literature Synthesis and Comparative Analysis

The identified literature is examined through thematic synthesis rather than statistical analysis. The synthesis is organized around four themes: (1) AI applications across HRM functions; (2) technological and organizational influences on AI adoption; (3) sector-specific opportunities and implementation challenges; and (4) ethical implications and employee-related outcomes. These themes provide a consistent basis for comparing the education and corporate sectors while recognizing that the available evidence varies in scope, methodology, and organizational context.

The comparative analysis interprets findings and explanations reported in the existing literature to identify similarities, differences, and potential relationships between the two sectors. Where direct comparative evidence is limited, sectoral distinctions are presented as propositions for further investigation rather than as established conclusions.

Differences in organizational size, digital readiness, resource availability, and workforce requirements are considered relevant factors that may influence AI adoption across sectors. These factors are examined without assuming that sectoral affiliation alone determines the nature or extent of AI adoption.

3.4. Theoretical Integration and Framework Development

The Technology–Organization–Environment (TOE) framework is used to organize the factors associated with AI implementation. The principal dimensions include technological readiness, organizational capabilities, and environmental influences, which are examined in relation to changes in HRM practices.

Responsible AI governance is incorporated into the proposed conceptual framework, with particular attention to fairness, transparency, and accountability. The framework seeks to integrate the conditions influencing AI implementation with the potential consequences for HRM transformation, providing a conceptual basis for comparing AI adoption in the education and corporate sectors.

3.5. Methodological Scope and Limitations

As the study is based on existing literature, it does not empirically test relationships or establish causal effects. The scope and strength of its conclusions depend on the quality, relevance, and coverage of the literature selected for analysis and comparison.

The methodology should not be interpreted as a systematic literature review. Instead, it is positioned as a conceptual literature synthesis because the available methodological details do not provide a sufficiently explicit and reproducible procedure for a systematic review. Accordingly, the findings are intended to support conceptual understanding and framework development rather than to provide statistically generalizable or empirically validated conclusions.

4. Comparative Analysis of AI Adoption and the Transformation of HRM Practices

4.1. AI in Recruitment and Selection

Recruitment is one of the main uses of AI in human resource management. AI tools can help screen resumes, match candidates, create job descriptions, schedule interviews, make communication with applicants. The adoption of these tools makes it possible to save on repetitive administrative tasks and process a huge amount of data related to recruitment affairs. However, the success of AI-enabled recruitment depends on the quality of the data being used, appropriateness of selection criteria, and the level of human involvement in important employment decisions.

In the education sector, the use of AI can be involved in staff recruitment, administration appointments, screening applications, and communicating with candidates. However, hiring for academic positions will involve multifaceted evaluations that cannot easily be conducted by AI technologies, such as assessing teaching ability, research contributions, area of expertise, and fit with institutional practices. For corporate companies, AI can also be useful in high-volume recruitment, skills matching, talent sourcing, and application management in different departments. Even though these applications have operational benefits, AI can recreate historical inequalities when training data or selection criteria are biased against certain groups.

The comparison indicates that the main issue is not about adopting AI; it is more about the appropriateness of its implementation considering the nature of the position and the consequences of a decision. Since ethical AI implementation entails professional assessment, automated

suggestions should not dictate recruitment results without appropriate evaluation (Bujold et al., 2024).

4.2. AI as an Assisting Tool in Training and Development

AI is revolutionizing training and development by offering personalized recommendations regarding learning, identifying skill disparities, producing learning materials, and determining growing competency needs. AI learning platforms allow organizations to match training activities and personnel responsibilities with changes in goals and required skills. Deepa et al. (2024) assess the effects of AI technologies on competencies necessary for HR managers and stress the significance of both technological adoption and developing competencies.

Within educational establishments, AI can be beneficial for faculty development, establishing digital competencies, training in research, and enhancing administrative skills. The actual advantage of AI in training is in the possibility of lifelong training with consideration of both faculty experience and individual learning requirements. To succeed, proper technical means, help from administration, and the chance to learn how to work with AI are necessary.

Business organizations can apply AI learning systems for the identification of skill gaps, suggesting development activities, and supporting reskilling strategies in accordance with business demands. Generative AI can also be applied to preparing instructional materials and creating training scenarios, but the correctness of the content developed needs to be checked. The use of generative AI in business is discussed in Chowdhury et al. (2024) from the standpoint of strategic HRM.

In general, the leading advantage of AI learning is that it will promote staff activities instead of automating content delivery. As a result, organizations are required to integrate personalized learning technologies with chances for practicing, being offered feedback, cooperating, and making sensible judgements.

4.3. AI in Performance Management

Performance management is yet another HR-related activity in which AI and analytics are capable of changing the way of counting, evaluating, and developing employee inputs. Thanks to AI-powered systems, performance data can be accumulated, various patterns disclosed, the feedback process facilitated, as well as support with informative suggestions needed to make a valid decision. With that in mind, it is possible to assist HR practitioners in defining areas of need for improvement and achieving consistency of performance-related processes. On the other hand, performance metrics based on digital solutions are not always enough to capture external circumstances and possibly, qualitative contributions.

In higher education, performance management is likely to be associated with the effectiveness of teaching, contribution to research, assistance to students, organizational assignments, etc. All these activities are highly complex and cannot be represented by a single standardized performance indicator. Lack of a qualitative judgement in the evaluation process may lead to the following: if AI-generated assessments are prevailing over human-made ones, the results may remain inadequate.

In business settings, performance management analytics powered by AI will help managers analyze productivity trends, success in achieving goals, development of competencies, and general workforce trends. Nevertheless, extensive monitoring of employees may result in an increased level of concerns about their freedom and procedural fairness. Noponen et al. (2024) elaborate on the opportunities and barriers of algorithmic management which helps explain why tech-supported management should be distinguished from tech-supported employee development.

A responsible approach to performance management is supposed to involve clarity on evaluating regulations and human accountability for important decisions connected to evaluation.

4.4. AI in Employee Engagement and HR Services

Aspects of employee engagement and service delivery in human resource management have seen the introduction of the use of artificial intelligence (AI) to enable the use of chatbots and virtual assistants to tend to human resource systems and human resource on-demand self-service platforms. The use of these systems allows for greater access to pertinent information while making the work load of human resource professionals much easier. The use of artificial intelligence also aids in the analysis of employee feedback and engagement feedback thus allowing the company to recognize any re-occurring problems and matters that may need further attention from the managerial workers.

Educational institutions also have made use of AI technology in order to assist faculty members and non-faculty members in navigating their various leave forms and filing processes as well as going through the available training opportunities offered by the employer. A major factor in the effectiveness of such systems can be attributed to how well the institution's rules & regulations are interpreted and the correct decision made on whether to deal with particular matters on either sensitive or complicated matters.

The corporate world has been able to apply AI technology in their efforts to support those working in geographically distributed workplaces and also to analyze employee feedback. However, it is good to note that in cases where employees require empathy when dealing with employee issues, a fully automated system is not going to be enough.

4.5. Application of AI in Workforce Planning and HR Analytics

The concept of AI in workforce planning as well as HR analytics extends the functionality of AI from its role in standard HR transactions to the wider array of organizational decisions. Using AI-based analytics, it is possible to analyze workforce trends, predict the number of skills required for future operations, facilitate succession planning, and investigate the factors behind leaving of employees. These developments seem to provide HR professionals a chance at shifting from traditional backward-looking reporting to advanced forward-looking analytics. Nonetheless, predictive nature of the results highly depends on the quality of data used, on the appropriateness of the models used for computations and interpretations of results that should be contextualized to be relevant (Verma et al., 2023).

As far as educational organizations are concerned, workforce analytics can be employed in the planning of faculty requirements, workload distribution, succession planning, and professional development needs identification. Educational institutions should also take into account element such as academic calendar, disciplines, teaching load, research obligations and priorities of the institution. For organizations operating in the business sector, AI-based planning can be meaningful in terms of forecasting talent needs, defining what skills are crucial, and looking into different scenarios of success, as well as in the formulation of plans related to recruitment.

The analysis suggests that the benefits of AI analytics are dependent on the decision being made and on the characteristics of the workforce under consideration. This means that educational and business organizations could utilize similar analytical technologies, but different criteria for workforce requirements. Also, the importance of leader support, data governance and the ability to do relevant interpretations of analytical outputs becomes evident. In their research on strategic HR leadership and a high-performance culture, the authors (2024) offer a valuable viewpoint on the organizational role of HR strategy but it is necessary to note that the research cannot be treated as direct evidence of the impact of AI on the workforce. Hence, there should be an understanding of AI-enabled workforce planning as a decision-supporting function that integrates quantitative analysis, industry expertise, and organizational context. The predictive results should be carefully analyzed, especially where recruitment, retention, promotion processes, or changes in the workforce are concerned.

4.6. Cross-Sectoral Comparison and Governance of AI

The analysis mentioned above demonstrates that AI impacts similar HR processes across the sectors, however, the influences can differ depending on the context.

HRM feature	Education	Corporate
Recruitment	Faculty and administrative staff hiring; academic qualifications	Talent hunting, mass recruitment, and skills matching
Training and development	Faculty development and institutional competencies	Reskilling, role-based learning, and business capability development
Performance management	Teaching, research, service, and administrative contributions	Achievement of goals, productivity, competencies, and performance of the organization
Employee services	Institutional policies, leave, and support of the staff	Workplace services, benefits, and support across business units
Workforce analytics	Academic workforce planning	

Source: Authors' conceptual synthesis, reviewed literature.

The differences mentioned have an analytical rather than universal character. Matching size of the business, technological advancement, availability of resources, and strategy of implementation can

lead to many different results in both sectors. Thus, the mere fact of belonging to a certain sector should not be viewed as justification for the utilization of AI.

Responsible governance of AI is applicable for all HR processes elaborated earlier. As Bujold et al. (2024) point out ethical issues in AI-based HRM and draw attention of the professionals to the concepts of fairness, privacy, transparency, trust, and people's involvement. The latter is especially important in situations when AI-based systems define job opportunities, performance evaluation, and people monitoring.

To sum up, comparative analysis confirms the suitability of applying human-centered approach in AI-enabled HRM. Organizations should integrate technology implementation with their employee needs and duties instead of concentrating on automated process only.

5. Framework Proposal on AI Integration and Human Resource Management Changes

5.1. Explanation of the Framework

From the previous review of literature, it can be concluded that the implementation of AI in HRM entails an organizational transformation rather than simply the application of various digital technologies. Although AI implementation impacts areas like recruitment, training, performance management, employee services, and workforce planning, the impact will vary according to the organization's readiness, technological capabilities, workforce characteristics, and governance. It is essential to connect the examination of AI-enabled HRM with the search for strategic organizational benefits and having regard to the human perspective of such implementation (Strohmeier, 2022; Verma et al., 2023).

Following the technology-organization-environment (TOE) framework, the current research introduces the framework where variables influencing AI implementation are linked to changes in HRM practices. The framework proposes two different organizational contexts (the educational sector and business) and includes the responsible governance of AI as a cross-sectional matter in the framework. Thus, the framework demonstrates how technological readiness, support of the organization, and environmental influence can affect the AI introduction process and how this process will contribute to the changes in HR processes and HRM processes.

5.2. Elements of AI Implementation

The first element(s) of the framework is the elements influencing the AI implementation in the organization. They can be divided into three categories.

Technological readiness means the existence of proper digital infrastructure, high-quality labor force data, compatible systems, and reasonable AI equipment which are in accordance with organizational needs. The significance of high quality and integration of data lies in the fact that, while making recommendations, AI may not be used in a reliable manner if the data is either incomplete or outdated or unrepresentative. Thus, technological readiness refers not only to access to AI technologies but also to the ability to use them successfully.

Organizational readiness. Organizational readiness, in this context, involves the presence of support from top management, availability of necessary funds, suitable competencies of personnel,

successful change management processes, and harmony between HR strategy and AI applications. Successful implementation of AI requires HR managers to acquire analytical skills to interpret outputs and perform evaluation of recommendations.

Environmental factors. Environmental factors, in their turn, can include the presence of some regulations, market expectations, professional standards, limitations in competition, and advancements in digital transformation. These factors play an important part when it comes to urgency, scope, and steering the implementation of AI technologies.

Thus, considering these aspects provides a theoretical framework for understanding the diversity within AI implementation as it shows that organizations within the same industry hardly ever possess similar resources or needs.

5.3. AI and HRM Changes

The second block of the structure deals with the connection between AI implementation and changes in HRM practices. The study describes four links within transformation. The first link includes operational efficiency and is determined by the possibility to reduce administrative duties, improve data processing, and facilitate timely delivery of services in HR. Second, decision-making capability is the ability to use AI-generated information that assists in such processes as recruitment, workforce planning, evaluation of performance, and management of talent. Third, employee experience includes such elements as availability, reactivity, personalization, and fairness perception of HR services and procedures. Fourth, strategic HR capability means that HR professionals can apply technological insights in order to make their decisions about the workforce corresponding to the aims of the company.

These dimensions are interrelated but should not be viewed as interchangeable. For instance, the increase in processing speed does not imply an increase in decision-making quality or employee experience. The same is true for the case of the use of predictive analytics; availability of this technology does not imply that workforce planning has become more efficient. Thus, the framework represents HRM transformation as a multidimensional outcome since changes in its components can occur at different rates depending on the implementation of AI (Verma et al., 2023).

5.4. Sectoral Context as a Comparative Dimension

The framework implements in particular the concepts of education and corporate sectors as the contexts that can shape both the adoption of AI in practice and its relation to HRM transformation. The focus of educational organizations can be on the requirements of academic workforce, development of faculty, accountability of the institution, and coordination of administrative processes. In contrast to educational institutions, corporate organizations can put more emphasis on aspects such as scaling the workforce, competitiveness of talents, operational efficiency, and business strategy. These aspects can influence both the choice of AI applications and the ways of assessment of their effectiveness. The model does not assume that any industry will be more successful in adopting AI or achieving specific results with its help than others. It shows that sectoral environment may affect the links between the technological readiness, organizational readiness, AI

adoption, and HRM transformation. For the purposes of interpreting the comparative data one should also take into account the differences in organizational size, resources, digital maturity, and workforce structure.

5.5. Responsible AI Governance as a Cross-Cutting Issue

Responsible AI governance is one of the important elements of the constructed framework. Use of AI-related information by HR managers can lead to changes in the recruitment process, employee assessment, career development, employee monitoring, and retention issues as well. Therefore, one cannot ignore the importance of algorithm fairness, transparency, privacy, accountability, and sufficient level of human intervention in the process of implementing the model. Authors stress the significance of the responsible AI in HMR, highlighting the importance of considering ethical safeguards alongside the technological and organizational capabilities.

The model does not treat responsible AI governance as a specific outcome to be reached only after the implementation. On the contrary, it positions responsible AI governance as cross-cutting issue that is to be taken into account when making choice when it comes to the technology, data used, system built, decision process carried out, and results of HR activities. It is of particular importance to bear in mind the importance of human interference in the cases when the decision made on the basis of AI recommendations is of great significance for an employee.

Conceptual Propositions

Following a review of the current academic literature, the following conceptual propositions have been developed for empirical investigation:

Proposition 1: The readiness in technology positively correlates with the level of AI utilization in human resource management.

Proposition 2: The readiness of an organization which includes leadership support and employee competencies helps to integrate AI in HR.

Proposition 3: The usage of AI may facilitate the transformation of HR practices by increasing operational efficiency, enhancing decision-making capabilities, ensuring positive employee experiences, and strengthening strategic capabilities.

Proposition 4: The link between AI utilization and the transformation of HR practices may differ depending on the sector and the characteristics of the organizations.

Proposition 5: Proper governance of AI is essential for proper use of AI-supported HRM.

It is essential to point out that the offered propositions are conceptual ideas derived from theoretical review rather than tested hypotheses. The propositions provide a base for further research into the topic.

5.6. The Integrated Framework

The proposed integrated framework combines the variables of the previous section into one unified analytical design. Technological readiness, organizational readiness, and environmental factors become the prerequisites for AI implementation in HR. After adoption of AI, HRM starts transformation in terms of four main parameters: operational efficiency, decision-making ability,

employee experience, and strategic advantage. In addition, public education and business represent the comparison sectors.

This framework is important as it connects several concepts: technology implementation, HRM transformation, sectoral context, and responsible utilization of AI. It should also be noted that the value of AI-enabled HRM should not be assessed in terms of efficiency thus allowing one to better understand how AI influences the process.

6. Discussion

The discussion of the implications of AI highlights that the installation of AI into HRM is related to the larger organizational transformation associated with technology, capability of managers, individual experiences, and governance. The literature studied shows that artificial intelligence has the potential to facilitate HR operations and make decision-making more analytical. However, the effectiveness of such tools depends on how technological capabilities are being utilized in the processes. Such understanding is consistent with that of Strohmeier (2022) stating that AI and HRM span several disciplines and of Verma et al. (2023) who emphasize the need for examining AI in HRM from the point of view of a wider organizational framework. Thus, the introduction of AI in HRM cannot be automatically regarded as a synonym to better outcomes; its effectiveness should be assessed according to the appropriateness of the application, readiness of the organization to implement these developments, and quality of implementation of the innovation.

The comparison of AI in the education and business sectors indicates the role of organizational context. Although educational and business institutions could adopt artificial intelligence at different levels of recruitment and selection, training and development, performance evaluation, employee services, and workforce planning, the features of the sectors may also influence their implementation. Educational organizations have to take into account the academic responsibility, academic staff development, academic autonomy and different aspects of academic achievements. Even though the areas of application of AI in education and business organizations are similar, the priority areas according to which the workforce should be managed could differ greatly depending on the type of the organization.

The conversation further affirms the importance of organizational readiness when it comes to assessing the effectiveness of AI-integrated HRM. Merely having technological hardware is not enough if employees are incapable of understanding AI-produced recommendations, or if leaders fail to make it part of their HR policy. According to Deepa et al. (2024), technical and social skills of HR managers are of utmost importance in environments centred around AI. Therefore, this highlights the necessity to develop human skills, manage changes, and make considerate decisions along with investing in technology. AI can be more beneficial in transforming HR only if it is a supplement to the knowledge and skills of HR specialists, and not a replacement of their management functions.

Another implication is the link between the efficiency of technology and employee-oriented HRM. Automated technology enhances the speed and consistency of certain activities, yet the application

of such systems is associated with issues such as algorithmic bias, privacy and transparency, and trust of employees. According to Bujold et al. (2024), responsible artificial intelligence is crucial for the work of HRM, which proves the necessity of implementing governance mechanisms to address any potential risks. It is vital to pay attention to monitoring performance, candidate filtering system, and predictive people analytics as their results influence job opportunities and personal progress in carving career. Thus, human intervention, clear policies, and mechanisms for reviewing important decisions are crucial for a responsible implementation.

To sum up, the created model puts forward a comprehensive view on how the organizational, material, and environmental factors define the use of AI in HRM and how specific industries impact HRM transformation. The notable point of this paper is that it considers AI-enabled HRM as a transformation that is dependent on the context and focuses on people, instead of a mere technological change. The model laid out is used as a starting point for further empirical studies to understand the relationship between the variables and see how educational institutions and companies can find a balance between innovation, efficiency and welfare of employees.

7. Theoretical and Practical Implications

7.1. Theoretical Implications

The paper makes a contribution to the literature in the domain of artificial intelligence and human resource management by combining technology adoption, organizational context, HRM transformation, and responsible governance of AI in one model. The use of the Technology-Organization-Environment (TOE) framework allows for building a framework for research on the conditions of the adoption of technology in HRM as it permits examining how technological readiness, organizational capabilities, and environmental factors affect the adoption of technology. The paper draws connection between these conditions and efficiency, decisiveness, employee experience, and strategic HR capabilities, thus, expanding the discussion from merely technology implementation to a wide range of impacts on HR practices (Strohmeier, 2022; Verma et al., 2023). Another important contribution made in this paper is the comparison of educational institutions and corporate organizations. The framework does not rely on the assumption that the adoption of AI is the same for all organizations, but realizes that the sector context can matter for the priorities and end results of the process. Moreover, the study puts responsible AI governance at the center of the process and emphasizes that the technological change should be considered in human, fair, accountable, and transparent aspects (Bujold et al., 2024). All the connections should provide a basis for studies of the differences in the adoption of AI and the transformation of HRM.

7.2. Educational Institutions Application Guidelines

Educational institutions should implement HR practices based on artificial intelligence as per their goals and objectives. The priority should be given to applications easing routine HR management, facilitating the development of faculty members, and ensuring the improved access of employees to the information held by the institution. Institutions should check their digital infrastructures,

checks the quality of their data, assesses the readiness of employees for work with AI, and evaluates how AI systems correspond with administrative systems before the technology is implemented. The training should be provided to the faculty and administrative staff that should explain the offerings of AI and their limitations. Special care is needed in the hiring, performance evaluation, and the results of employee career development decisions based on AI output. Educational authorities should create clear accountability mechanisms; retain human involvement in important decisions and encourage employees to contest the automated judgment.

7.3. Corporate Organizations Application Guidelines

It is necessary for corporations to implement the AI systems within the overall strategy of working activities and not as separate tech solutions without clear purpose. AI applications for recruiting processes, workforce analytics, personalized learning, and employee services should relate to evident organizational needs and be measured based on relevant performance indicators. Organizations should work on enhancing analytic abilities, digital skills, and the ability to adapt to changes which will allow

Hiring and performance management methods driven by AI must be scrutinized on an ongoing basis regarding possible misunderstandings and unforeseen effects. Workers should be provided with specific details about implementing AI functions in employment decisions, especially in terms of monitoring or the provision of suggestions affecting their job. In keeping with the responsible AI issues discussed by Bujold et al. (2024), human involvement is a significant part of important HR management choices.

7.4. The Implications of Responsible AI Governance

In both industries, responsible AI utilization means doing all right. Certainly, there has to be a balance between technological potent capabilities and human accountability. Organizations should develop regulations that determine acceptable AI application, access to data, decision-making power, and process developed to identify negative consequences. Evaluating is not just about operational performance, as it should also consider employee confidence, procedural justice, accessibility, and quality of HR decisions. By using these recommendations when establishing and deploying AI-driven HR solutions, companies will be able to introduce technological advancements and care about employee interests at the same time.

Thus, implications go beyond choosing the correct AI tools. Successful use of this technology should be feasible with proper harmonization of technological devices, business strategy, workforce capabilities, and governance. Both education and business HR leaders should opt for context transformed implementation approaches respecting the needs of their labor force and adhering to unified principles of responsible and human-centered HRM.

8. Conclusion

Artificial intelligence is acting as a transformative force in human resources management through the introduction of new features of functionality in the area of recruitment, training and development, performance management, employee services, and workforce planning. In this

conceptual study, AI implementation and HRM transformation were analyzed from a comparative point of view on the examples of the areas of education and business. With the help of existing sources and using the Technology-Organization-Environment (TOE) framework, the significance of technological readiness, organizational capabilities, industry context, and proper management was emphasized in being able to successfully implement AI. The results of analysis demonstrate that AI adoption can be viewed not only as the adoption of some automated instruments but rather as a complex process of implementation of technological capabilities into the processes of organizations. How employees and HR managers are prepared for new processes and how decisions supported by AI are controlled play an important role in this context. Even though education and business have similar approaches for some HR functions, their institutional priorities and conditions of implementation may be different, which makes it necessary to research the process being context-specific. It is also important to say that although operational efficiency means a lot, the questions of trust, fairness, transparency, privacy, and the presence of persons making a decision have a crucial role in the process of effective application of AI in the sphere of HRM.

9. Limitations

As it has been mentioned before, there are several limitations of this research. First of all, the conceptual nature of the current concept and its literature-based perspective does not allow for getting empirical bases for establishing the cause-and-effect relationships within the studied processes. The second limitation is connected with the specificity and relevance of the literature used for the study. At the same time the differences in the definitions of AI and in research methods applied in various studies should make one think about the importance of conducting more research on the topic.

10. Future Research Directions

Future research possibilities concerning this framework are connected with conducting research based on empirical studies either in educational institutions or in business organizations. Quantitative surveys may be employed to find the relations between technological preparedness, organizational support, AI adoption, and results in HRM being perceived. Qualitative interviews will also bring some evidence for analyzing the problems connected with the experiences of employees, the decisions made by managers, or ethical aspects of using AI in HRM. Long-term studies analyzing the changes in the processes of the introduction of AI relied can also be beneficial. In this sense, as organizations are growing in technological literacy, the impact of the process will be analyzed.

References

- Arora, P., Budhiraja, M., Grover, I., & Kataria, I. (2024). Strategic HR leadership: A case study on building a high-performance culture at Patanjali. *Journal of Informatics Education and Research*, 4(2), 1488–1494.
- Arora, P., & Sharma, V. (2022). A study of association of soft contracts with involvement of employees in Indian higher education sector. *NIU International Journal of Human Rights*, 9(III).

- Bujold, A., Roberge-Maltais, I., Parent-Rochelleau, X., Boasen, J., Sénécal, S., & Léger, P.-M. (2024). Responsible artificial intelligence in human resources management: A review of the empirical literature. *AI and Ethics*, 4, 1185–1200. <https://doi.org/10.1007/s43681-023-00325-1>
- Chowdhury, S., Budhwar, P., & Wood, G. (2024). Generative artificial intelligence in business: Towards a strategic human resource management framework. *British Journal of Management*, 35(4), 1680–1691. <https://doi.org/10.1111/1467-8551.12824>
- Deepa, R., Sekar, S., Malik, A., Kumar, J., & Attri, R. (2024). Impact of AI-focussed technologies on social and technical competencies for HR managers: A systematic review and research agenda. *Technological Forecasting and Social Change*, 202, Article 123301. <https://doi.org/10.1016/j.techfore.2024.123301>
- Jatobá, M. N., Ferreira, J. J., Fernandes, P. O., & Teixeira, J. P. (2023). Intelligent human resources for the adoption of artificial intelligence: A systematic literature review. *Journal of Organizational Change Management*, 36(7), 1099–1124. <https://doi.org/10.1108/JOCM-03-2022-0075>
- Kataria, I., Malik, K., Budhiraja, M., & Arora, P. (2024). Embracing AI: Transforming human resource management in the era of technological integration. *Empirical Economics Letters*, 23(Special Issue 3). <https://doi.org/10.5281/zenodo.11116679>
- Naoum, R. F., Szakadati, T., & Balogh, G. (2026). Artificial intelligence (AI) in human resource management (HRM): A systematic review of its dual impact on diversity, equity, and inclusion (DEI). *Management Review Quarterly*. <https://doi.org/10.1007/s11301-025-00580-y>
- Noponen, N., Feshchenko, P., Auvinen, T., Luoma-aho, V., & Abrahamsson, P. (2024). Taylorism on steroids or enabling autonomy? A systematic review of algorithmic management. *Management Review Quarterly*, 74, 1695–1721. <https://doi.org/10.1007/s11301-023-00345-5>
- Sharma, B., Arora, P., Budhiraja, M., Sharma, K., Kumar, S., Gupta, N., & Kumari, S. (2024). A systematic literature review of gamification applications in human resource processes: Insights, trends, and future directions. *Library Progress International*, 44(3), 11532–11538.
- Strohmeier, S. (2023). An interdisciplinary review of AI and HRM: Challenges and future directions. *Human Resource Management Review*, 33(1), Article 100924. <https://doi.org/10.1016/j.hrmr.2022.100924>
- Tornatzky, L. G., Fleischer, M., & Chakrabarti, A. K. (1990). *The processes of technological innovation*. Lexington Books.
- Verma, P., Islam, M., Patel, P., Malik, A., Budhwar, P., & Gupta, S. (2023). AI-augmented HRM: Literature review and a proposed multilevel framework for future research. *Technological Forecasting and Social Change*, 193, Article 122645. <https://doi.org/10.1016/j.techfore.2023.122645>