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The Future of Human Resource Management in the Age of Digital Transformation and Artificial Intelligence: Towards a Theoretical Explanatory Model

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Abstract

This study aims to explore the future of human resource management in the context of the rapid transformations associated with digitalization and artificial intelligence, by analyzing their implications on the administrative, strategic, social, and organizational functions of the enterprise. The study stems from the problematic that the integration of digital technology and smart systems does not merely represent an update of administrative tools and procedures, but constitutes a structural transformation that recasts the nature of human resource management and its position within the organization, as well as its impact on labor relations, professional authority, and decision-making mechanisms. The study adopts a descriptive-analytical methodology and a critical theoretical approach, drawing upon Arabic and foreign literature on electronic human resource management, artificial intelligence, organizational transformation, and the sociology of work. It also seeks to build an explanatory theoretical model that links technological transformation with the reshaping of administrative functions, socio-organizational transformations, and ethical governance. The study proposes the Sociotechnical-Governance Model of HR Transformation, based on four interconnected dimensions: technological and digital transformation, functional and strategic transformation, social and organizational transformation, and human and ethical governance. The study concludes that the future of human resource management depends not merely on the extent of the enterprise's adoption of artificial intelligence, but on its capacity to achieve integration between technology, human capabilities, organizational justice, and responsible governance.

Keywords: Human Resource Management; Digitalization; Artificial Intelligence; Organizational Transformation; Future of Work; Digital Governance; Sociotechnical Model.

Introduction

The digital revolution and the rapid development of artificial intelligence applications have brought about fundamental transformations in the nature of enterprises, their management styles,

and the organization of work within them. Technology is no longer merely an auxiliary means for executing administrative processes; it has become an influential factor in reshaping organizational structures, distributing roles and responsibilities, and developing mechanisms for communication, coordination, and decision-making.

These transformations have extended to the human resource management function, which has gradually transitioned from a traditional administrative model focused on managing files, tracking wages, attendance, and absences, and executing administrative procedures, to a more complex model based on data management, competence analysis, forecasting future needs, and developing human capital.

In this context, the employment of digital systems and artificial intelligence in human resource management opens up new horizons in the areas of recruitment, hiring, training, performance appraisal, and career path management, in addition to supporting strategic decisions related to the human element. Strohmeier (2020) noted that digital human resource management represents a development that goes beyond the mere use of technology in executing procedures, encompassing its strategic integration into the design of HR functions and the realization of organizational value.

Furthermore, artificial intelligence applications have become capable of processing large amounts of professional data, detecting patterns, providing recommendations, and predicting certain trends related to performance and human needs. However, these capabilities conversely pose issues related to justice, transparency, privacy protection, and responsibility for automated decisions—issues addressed by studies such as Tambe et al. (2019) and Dima et al. (2024).

In the Algerian context, these transformations acquire special significance given the efforts to modernize public administration and develop management systems, and the imperative this imposes to reconsider the HR function and its working methods. A study by Berrefas (2023), which covered Algerian public institutions and administrative departments, highlighted that digital transformation may remain confined to operational application unless accompanied by organizational and social change and a real activation of the HR function. Rezkallah (2025) also addressed the contribution of AI to developing HR management functions and the challenges associated with its use in Algeria.

Based on the foregoing, the future of human resource management should not be studied from a purely technical perspective, but rather from a sociological and organizational perspective that focuses on the relationship between technology and the human being, and on the transformations affecting professional authority, organizational culture, and patterns of interaction and work.

Accordingly, this study seeks to move beyond merely describing digital and smart applications to building a theoretical conceptualization capable of explaining the nature of the transformation that human resource management is undergoing, and identifying the conditions for its success, its risks, and its future trajectories.

First: The Study's Problematic

Historically, human resource management has been associated with the execution of a set of administrative and organizational functions aimed at providing staff, developing their capabilities,

guiding their performance, and striking a balance between the enterprise's goals and employees' aspirations. However, contemporary technological developments have necessitated a profound review of these functions, as digital systems and AI have become capable of executing a growing number of operations that previously required direct human intervention.

This shift has led to the emergence of questions about the nature of the future awaiting human resource management, and the extent of its capacity to transcend its traditional administrative role to become a strategic partner in decision-making, knowledge management, and guiding organizational change.

However, the expansion in adopting smart systems does not necessarily imply achieving positive results automatically; while it may improve the speed of execution and data accuracy, it may also contribute to intensifying digital surveillance, redistributing power, and the emergence of new disparities in opportunities and competencies, in addition to potentially affecting organizational trust and professional autonomy.

In this context, a fundamental paradox emerges between the automation of human work and the augmentation of human capabilities with the help of technology. The former seeks to transfer certain tasks from humans to machines, while the latter is based on building a complementary relationship between them—a paradox discussed by Raisch and Krakowski (2021) through the automation-augmentation paradox.

Moreover, the transition of administrative decisions to smart systems raises a question about the limits of human authority and the responsibility of the administrator, and the extent to which decisions related to recruitment, promotion, and appraisal can be subjected to algorithmic outputs without human review.

Based on this, the study's problematic revolves around the following main question:

What is the future of human resource management in the era of digitalization and artificial intelligence? And how can a theoretical model be formulated to explain the technological, functional, social, and organizational transformations it will undergo?

Several sub-questions branch out from this question:

- What is the nature of the transformations brought about by digitalization and AI in the traditional functions of human resource management?
- How does AI reshape the processes of recruitment, training, performance appraisal, and strategic planning?
- What are the implications of smart technology on labor relations, professional authority, and organizational control?
- What are the ethical and social risks and challenges posed by algorithm-driven human resource management?
- What are the organizational, human, and institutional conditions necessary to build a sustainable model for smart human resource management?
- How can a theoretical model be built that links technological transformation with functional and social transformation and institutional governance?

Second: Study Hypotheses

The study proceeds from the following central hypothesis:

Digitalization and artificial intelligence lead to a structural transformation in human resource management, from a procedural administrative function to a smart strategic function. However, the nature of this transformation and its outcomes depend on the level of integration between technological maturity, human capabilities, organizational culture, and institutional governance.

The following sub-hypotheses branch from it:

Hypothesis One: The higher the level of digital maturity and the degree of AI integration, the greater the capacity of human resource management to transition from procedural management to strategic planning and forecasting needs and competencies.

Hypothesis Two: The integration of AI into HR functions leads to a redistribution of roles and sources of professional authority within the enterprise, resulting from the growing importance of data, technical expertise, and algorithmic analysis.

Hypothesis Three: The positive impacts of digitalization and AI depend on the level of digital qualification, organizational culture, administrative support, and employees' ability to adapt to technological transformations.

Hypothesis Four: The higher the level of digital governance, transparency, human oversight, and data protection, the lower the risks associated with algorithmic bias and weak professional trust and justice.

Third: Objectives and Significance of the Study

1. Study Objectives:

The study seeks to achieve a set of objectives:

- Analyze the transformations experienced by human resource management as a result of digitalization and AI.
- Identify the implications of AI on administrative and strategic functions.
- Explain the transformations affecting professional relations and sources of power within the enterprise.
- Uncover the social and ethical challenges associated with the use of smart systems.
- Identify the conditions that allow for the transition towards a smart and sustainable human resource management.
- Propose a theoretical model that explains the relationship between technological transformation and functional, social, and organizational change.

2. Significance of the Study:

The scientific significance stems from the attempt to link the literature on digital human resource management with the approaches of the sociology of organization and work, thereby allowing for transcending the technical approach that reduces transformation to updating procedures.

The practical significance lies in providing an analytical framework that public and private institutions can utilize in developing their policies related to talent management, training, performance appraisal, and digital governance.

Fourth: Adopted Methodology

The study adopts a descriptive-analytical methodology and a critical theoretical approach, by reviewing and analyzing a body of Arabic and foreign studies and research related to artificial intelligence, digital transformation, human resource management, and organizational change.

It also relies on a theoretical comparison between the traditional model and the smart digital model, aiming to identify the transformations affecting the functions of human resource management and its relations with the organizational environment.

The study takes on a theoretical, prospective character, and does not claim to present field or statistical results; rather, it aims to develop an explanatory model that can be tested in subsequent applied studies.

Fifth: Conceptual Framework of the Study

1. Concept of Human Resource Management:

Human resource management refers to the set of policies, processes, and practices adopted by an enterprise to attract, hire, develop the skills of, appraise, motivate, and retain individuals, contributing to the achievement of organizational goals.

This concept has evolved from personnel administration, which focused on administrative and procedural aspects, to strategic human resource management that considers employees as a primary source of knowledge, innovation, and adaptability.

This evolution is linked to the transition from managing jobs to managing competencies, and from addressing immediate needs to the strategic planning of human resources (Armstrong & Taylor, 2023).

2. Concept of Digitalization:

Digitalization (digitization) refers to the conversion of information, documents, and processes into digital formats that allow them to be stored, processed, and exchanged via information technology.

However, the concept of digitalization differs from the concept of digital transformation; digitalization may be limited to converting documents and files into electronic form, whereas digital transformation entails redesigning processes, organizational structures, working methods, and service delivery.

Strohmeier (2020) emphasizes the necessity of distinguishing between the digitization of information, the digitalization of organizational practices, and the digital transformation that extends to the strategic dimensions of the enterprise.

3. Concept of Artificial Intelligence:

Artificial intelligence refers to systems and technologies that allow for the processing of data, learning from it, detecting patterns, and generating predictions, recommendations, and content, thereby helping to perform cognitive tasks that previously required human intervention.

In human resource management, its applications include resume analysis, competency identification, forecasting professional needs, developing training programs, analyzing performance, and providing smart administrative assistance.

Tambe et al. (2019) noted that employing AI in human resources faces challenges related to the nature of data, assigning responsibility, fairness in decisions, and employee reactions towards algorithm-based decisions.

4. Concept of Smart Human Resource Management:

Smart human resource management can be defined as a management style based on the integration of digital systems, data, advanced analytics, artificial intelligence, and human expertise, with the aim of improving various HR functions and developing the capacity for forecasting, planning, and decision-making.

This model is not limited to automating procedures, but rather encompasses the redesign of HR functions and the development of its relationship with institutional strategy, while preserving the human and ethical dimension in managing employees.

Sixth: Functional Transformations in Human Resource Management in the Era of Digitalization and AI

1. Transformation in the Recruitment and Attraction Function:

Traditional recruitment relied on advertising, receiving files, manual screening of resumes, conducting interviews, and making decisions through direct human evaluation.

In the digital environment, electronic platforms have made it possible to receive, classify, and analyze applications. Smart systems can also assist in matching candidates' qualifications with job requirements.

This contributes to reducing time and improving the organization of the attraction process, but it raises the issue of algorithmic bias, especially when systems rely on past data that may contain patterns of discrimination.

Recent literature has shown that using AI in recruitment can achieve efficiency and objectivity in some cases, but it may also lead to entrenching disparities if transparency and human auditing are absent (Naoum et al., 2026).

Accordingly, the future of recruitment should be based on the integration between algorithmic analysis and independent human evaluation.

2. Transformation in the Training and Competency Development Function:

Digital learning systems now allow for the delivery of flexible training programs and the provision of educational content tailored to employees' needs, in addition to the possibility of using AI to identify skill gaps and propose individual development paths.

This leads to a shift from standardized training to personalized and continuous learning, aimed at qualifying employees to keep pace with changes in the nature of work.

In this context, a distinction must be made between developing existing skills (Upskilling) and professional rehabilitation to acquire new skills (Reskilling), both of which are fundamental requirements for adapting to automation and digital transformations.

The importance of this trend is particularly evident in enterprises seeking to retain their human resources and develop their capabilities rather than treating automation as an avenue for employee exclusion.

3. Transformation in the Performance Appraisal Function:

Traditional performance appraisal relied on periodic reports, administrative assessments, and supervisors' observations.

Digital appraisal, on the other hand, relies on performance indicators, digital dashboards, and the analysis of data related to achievement, productivity, and commitment to goals.

AI can provide recommendations regarding identifying strengths and weaknesses and proposing appropriate interventions to improve performance.

However, this development raises the risk of reducing human performance to quantitative indicators, because work includes dimensions that cannot be fully measured automatically, such as cooperation, innovation, the ability to solve complex problems, and the quality of professional relationships.

Therefore, an appraisal model combining quantitative indicators with qualitative assessment should be adopted, ensuring the employee's right to understand the criteria and discuss the appraisal results.

4. Transformation in Strategic Human Resource Planning:

Data analytics offer the possibility of predicting future human resource needs, identifying jobs that may be affected by automation, and monitoring the competencies that should be developed or attracted.

This leads to a transition from reactive management to proactive management, where HR management becomes capable of presenting future scenarios regarding the enterprise's needs for skills and jobs.

These capabilities support the transformation of human resource management into a strategic partner in planning and decision-making (Marler & Boudreau, 2017).

5. Transformation in Career Path Management:

Digital systems can build databases for competencies, qualifications, and experiences, and compare employees' capabilities against the requirements of various positions.

They can also assist in identifying appropriate career paths and proposing opportunities for training and job mobility.

But this development necessitates not turning the career path into a closed algorithmic outcome, because the employee's choices, ambitions, experience, and social circumstances must remain fundamental elements in managing their career path.

Seventh: Sociological and Organizational Transformations of Human Resource Management

The transformation brought about by digitalization and artificial intelligence is not limited to reorganizing administrative functions, but extends to the structure of social and professional relations within the enterprise.

1. Redistribution of Organizational Authority:

In a traditional organization, authority is primarily linked to positional status, administrative hierarchy, and formal jurisdictions.

In a digital organization, data, technical knowledge, and the ability to analyze information have become new sources of influence. An employee who possesses specialized expertise in digital systems may acquire professional influence that sometimes exceeds their formal administrative position. Similarly, a manager with access to data and control over performance indicators may have enhanced capacity for surveillance and direction.

This can be explained in light of the strategic analysis of organizations, which considers power as a result of controlling resources and zones of uncertainty within the organization (Crozier & Friedberg, 1980).

2. Transformation in the Human-Machine Relationship:

AI raises a question about the nature of the human role in human resource management. Automation allows the transfer of some routine tasks to technical systems, while human augmentation focuses on using technology to increase human capabilities and improve performance. Raisch and Krakowski (2021) point out that automation and augmentation are not necessarily separate paths, but may overlap within a single enterprise.

Hence, the future should not be understood as a comprehensive replacement of humans by machines, but rather a redistribution of tasks, such that technology handles data processing and repetitive work, while humans retain roles requiring moral judgment, social understanding, communication, negotiation, and sensitive decision-making.

3. Reshaping Organizational Control:

Digital systems now allow tracking professional processes, analyzing performance indicators, and defining associated responsibilities.

While these capabilities may contribute to enhancing transparency and accountability, they may also lead to intensified surveillance over employees and weaken their sense of autonomy if it turns into continuous and disproportionate monitoring.

Tambe et al. (2019) note that the use of data-driven decisions in workforce management raises issues related to accountability and social responsiveness to algorithmic decisions.

Thus, the primary challenge becomes striking a balance between the necessity of organizational control and respect for professional rights and privacy.

4. Emergence of New Professional Disparities:

The integration of smart technologies may lead to the emergence of disparities among employees based on the level of technological mastery and the ability to analyze information. This disparity is not linked to age alone, but to the level of training, experience, learning opportunities, and the nature of professional tasks.

From here emerges the importance of the role of human resource management in ensuring equal opportunities for digital qualification, so that technological competence does not become a criterion for exclusion or professional discrimination.

5. Transformation in Organizational Culture:

Smart management imposes new organizational values, including rapid response, continuous learning, flexibility, cooperation, and data-driven decision-making.

These values may conflict with traditional administrative cultures based on extreme centralization, hierarchy, and fear of change.

Therefore, the success of digital transformation requires rebuilding the organizational culture by encouraging learning, cooperation, participation, and initiative.

The sociotechnical approach confirms that the effectiveness of technology depends on the degree of alignment between the technical system and the social system of the enterprise (Trist & Bamforth, 1951).

Eighth: Future Challenges and Risks

Despite the capabilities that AI offers to human resource management, its employment poses a set of challenges:

First: Algorithmic Bias. The databases used in training systems may contain past patterns of discrimination, leading to their reproduction in recruitment, promotion, or appraisal decisions.

Second: Privacy Violation. Smart human resource management requires processing large amounts of personal and professional data, necessitating strict controls for its collection, use, and storage.

Third: Decline in Organizational Trust. The lack of transparency in algorithmic decisions may lead to a feeling of unfairness among employees and a loss of trust in management.

Fourth: Over-reliance on Technology. Total submission to the outputs of smart systems may lead to a decline in professional judgment and human expertise.

Fifth: The Problem of Responsibility. Automated decisions necessitate determining the responsible party when errors occur affecting the career path or occupational rights of employees.

Sixth: Reshaping of Jobs. Automation can reduce the need for certain routine tasks, but conversely creates new needs related to digital analysis, data management, and technical governance.

UNESCO (2021) has highlighted the importance of fairness, transparency, accountability, and the protection of human rights in the development and use of smart systems—principles that should be incorporated into HR management policies.

A review by Naoum et al. (2026) also confirmed that AI has dual effects on diversity, equity, and inclusion in human resources; it can enhance standardization but may also reproduce existing biases.

Ninth: The Specificity of Digital Transformation in Algerian Human Resource Management

The subject of digital transformation in human resource management acquires special importance in Algeria, given the challenges facing enterprises in modernizing management methods and integrating technology into administrative and organizational practices.

Algerian studies have addressed this trajectory from different angles. Berrefas (2023) examined digital transformation as an organizational change process linked to HR practices in a group of Algerian enterprises, highlighting that the level of transformation may remain operational with limited impact on professional practices when not accompanied by comprehensive institutional change.

Khayra and Ouzirou (2024) also addressed the role of digital transformation in modernizing human resource management in university institutions, while Rezkallah (2025) discussed the contribution of AI to developing HR management functions, referencing the reality of its use in Algeria.

These works highlight the importance of transitioning from merely introducing technology to reconsidering the HR function itself.

The most prominent Algerian challenges can be identified in the following points:

- Disparity in levels of digital maturity among enterprises and sectors.
- The continued overlap between paper-based procedures and digital systems.
- The need for continuous training in AI and data analysis.
- The limitations of certain technical and organizational capabilities.
- The persistence of patterns of traditional administrative culture.
- The need to develop legal and institutional controls for using algorithms in professional decisions.
- The necessity of transforming human resource management from an executive function to a strategic function participating in leading change.

Consequently, the future of human resource management in Algerian public institutions should be based on a gradual transformation that takes into account the nature of administrative organization, human capabilities, infrastructure, and the legislative framework.

Tenth: Towards Formulating a Theoretical Model for Understanding and Explaining the Future of Human Resource Management

Based on the preceding analysis, the study proposes building a theoretical model entitled:

The Sociotechnical-Governance Model of HR Transformation

This model rests on the thesis that the future of human resource management is not determined by technology alone, but results from the interaction between technical transformation, job redesign, social and organizational transformations, and institutional governance.

1. The First Dimension: Technical and Digital Transformation. This represents the technological entry point for transformation and includes:

- Digitization of files and professional data.
- Adoption of electronic human resource management systems.
- Use of AI in data analysis.
- Employment of predictive analytics.
- Automation of administrative procedures.
- Building integrated competency databases.

This reflects the level of the enterprise's technical maturity and its ability to employ data and technology across various HR functions.

2. The Second Dimension: Functional and Strategic Transformation. This focuses on redesigning human resource management functions through:

- Transitioning from processing files to managing competencies.
- Transitioning from traditional recruitment to smart attraction.
- Transitioning from standardized training to personalized learning.
- Transitioning from periodic appraisal to continuous performance analysis.
- Transitioning from immediate planning to forecasting future needs.
- Transitioning from an administrative function to a strategic partnership.

3. The Third Dimension: Social and Organizational Transformation. This relates to the implications of technology on the social structure of the enterprise and encompasses:

- Redistribution of power and sources of influence.
- Changing the relationship between manager and employee.
- The emergence of digital and algorithmic surveillance.
- Changing patterns of communication and cooperation.
- The emergence of new professional disparities.
- Reshaping the organizational culture.
- Changing the relationship between human and technology.

4. The Fourth Dimension: Human and Ethical Governance. This represents the regulatory framework for the transformation and includes:

- Protecting personal and professional data.
- Ensuring algorithmic transparency.
- Reducing bias and discrimination.
- Adopting human oversight over sensitive decisions.
- Defining responsibility and accountability.
- Ensuring professional justice and equal opportunities.
- Enhancing organizational trust.
- Providing the employee's right to understand and object to decisions affecting their career path.

This dimension does not represent a subsequent stage of the transformation, but a horizontal condition that accompanies all its dimensions and stages.

5. Mediating and Moderating Factors

The model proposes a set of factors that influence the nature of the relationship between technical transformation and its outputs, namely:

- Employees' digital competencies.
- Organizational culture.
- Administrative leadership support.
- Quality of infrastructure.
- Level of employee participation.

- The legal and regulatory framework.
- The nature, size, and activity of the enterprise.

Two enterprises may adopt the same technology, but the implementation results will differ due to differences in organizational culture, competencies, level of support, and governance.

6. Outputs of the Model

The results that the model seeks to explain are:

- Improving organizational efficiency.
- Raising the quality of decisions related to human resources.
- Developing human capital.
- Enhancing adaptability and innovation.
- Improving professional justice and transparency.
- Enhancing organizational trust.
- Achieving institutional sustainability.

However, these outputs are not inevitable results; weak governance and limited training can lead to counterproductive results, such as algorithmic discrimination, decline in trust, and increased occupational stress.

Eleventh: Structural Representation of the Proposed Theoretical Model

The model can be represented through the following structure:

Stage One: Technological Inputs
Digitalization + Artificial Intelligence + Data + Smart Systems.
⬇
Stage Two: Functional and Strategic Transformation
Redesigning Recruitment + Training + Performance Appraisal + Planning + Competency Management.
⬇
Stage Three: Social and Organizational Transformation
Redistribution of Power + Changing Professional Relations + Digital Surveillance + Communication + Organizational Culture.
⬇
Stage Four: Institutional Outputs
Efficiency + Innovation + Decision Quality + Trust + Professional Justice + Sustainability.

Human and ethical governance intervenes at all stages, while digital competencies, organizational culture, leadership, and technical support affect the strength of the transformation and the direction of its results.

The explanatory value of the model lies in the fact that it does not assume a direct and inevitable relationship between technology integration and performance improvement; rather, it considers

the results as the outcome of interaction between technical capabilities, human resources, organizational structure, and institutional controls.

Twelfth: Theoretical Explanation of the Model in Light of the Sociology of Organization and Work

1. Strategic Analysis of Organizations:

The strategic analysis by Crozier and Friedberg (1980) allows for understanding the transformations affecting sources of power within the enterprise; technical knowledge and the ability to control data become resources that can grant actors a margin of influence and impact. Consequently, digitalization does not abolish organizational authority, but rather reshapes its sources and mechanisms of exercise.

2. The Sociotechnical Approach:

The sociotechnical approach asserts that successful change is not achieved merely by improving the technical system, but by achieving alignment between the social system and the technological system.

Accordingly, smart human resource management requires developing skills, organizational culture, and professional relations in parallel with developing digital systems (Trist & Bamforth, 1951).

3. The Structural Approach to Technology:

Orlikowski (1992, 2000) explains that technology does not produce its outcomes independently of organizational practices; rather, its effects are shaped by how actors use, interpret, and integrate it into daily work.

Therefore, there is no single deterministic model for smart human resource management; its results are determined according to organizational, social, and institutional contexts.

4. The Strategic Approach to Human Resource Management:

This perspective explains the transition from a traditional administrative role to a strategic role participating in planning, decision-making, and competency development, viewing human resources as a fundamental asset for achieving the enterprise's goals.

Under digitalization, human resource management becomes capable of linking employee-related data with the enterprise's future directions, thereby enhancing its capacity to anticipate needs and adapt to variables.

Thirteenth: The Future of Human Resource Management: Three Possible Scenarios

The future of human resource management can be anticipated through three analytical scenarios:

Scenario One: Automated Digital Management

This model is based on digitizing files and procedures and automating routine work, while largely maintaining the traditional organizational structure. This model represents a transitional stage, as it improves processing speed and reduces some administrative burdens without necessarily leading to a profound change in the philosophy of human resource management.

Scenario Two:

Data-Driven Smart Management

This relies on employing advanced analytics and AI in recruitment, training, appraisal, and planning, allowing for the development of proactive, data-driven management.

This scenario leads to a change in the nature of tasks, responsibilities, and the position of human resource management in the decision-making process.

Scenario Three: Human-Centered Smart Management

This model represents the most sustainable one from an organizational and ethical standpoint, because it employs technology to augment human capabilities and improve professional life.

It rests upon:

- Integration between algorithmic analysis and human judgment.
- Respect for privacy, justice, and transparency.
- Enhancing participation and organizational trust.
- Developing continuous learning and creative capacities.
- Making technology a means to improve work, not an independent end.

The study favors the importance of this scenario, because it combines technical efficiency with the social and human considerations of work.

Fourteenth: Theoretical Findings of the Study

In light of the theoretical analysis and the comparison between Arabic and foreign literature, the following findings can be drawn:

- Digitalization and artificial intelligence represent factors for redefining the human resource management function, not merely means for developing administrative procedures.
- Human resource management is trending towards a proactive strategic model relying on data, analytics, and forecasting future needs.
- The integration of smart systems leads to the redistribution of sources of power and knowledge within the enterprise, and the emergence of new patterns of control and organizational influence.
- The results of digital transformation are not determined by technology alone, but are influenced by human competencies, organizational culture, leadership, and governance.
- Algorithmic bias, privacy protection, and transparency represent fundamental challenges to building smart and equitable human resource management.
- The future of human resource management does not lie in replacing humans with machines, but in redistributing tasks and responsibilities between human capabilities and smart systems.
- The proposed sociotechnical-governance model constitutes an explanatory framework combining the technical, functional, social, and ethical dimensions of transformation.

Fifteenth: Recommendations

The study recommends the following:

- Establishing an integrated institutional strategy for digital transformation in human resource management.
- Transitioning from the digitization of files to building integrated systems for managing competencies and skills.

- Investing in continuous training in the field of artificial intelligence and data analysis.
- Adopting AI as a decision-support tool, and not as an absolute substitute for human responsibility.
- Setting standards for transparency and fairness when using algorithms in recruitment, appraisal, and promotion.
- Developing systems for protecting personal and professional data.
- Involving employees and their representatives in designing digital transformation policies.
- Updating performance appraisal criteria to balance quantitative indicators with qualitative aspects.
- Rehabilitating workers whose tasks are affected by automation instead of treating technical transformation as a path to professional exclusion.
- Developing the human resource management function to become a strategic partner in planning, innovation, and change management.

Conclusion

It is clear from this study that the future of human resource management in the era of digitalization and artificial intelligence goes beyond the limits of technical modernization and automation of procedures, to express a profound transformation in the philosophy of work management, the organization of professional relations, the distribution of power, and decision-making within the enterprise.

Digital technology and smart systems now offer vast capabilities to improve recruitment, training, performance appraisal, and strategic planning; however, these capabilities are not realized automatically, but are linked to the enterprise's ability to integrate technology within a social and organizational system that considers human competencies, professional culture, justice, and transparency.

The analysis led to proposing the Sociotechnical-Governance Model of HR Transformation, as a theoretical framework that explains the phenomenon through four complementary dimensions: technical and digital transformation, functional and strategic transformation, social and organizational transformation, and human and ethical governance.

The explanatory value of this model lies in the fact that it does not view technology as an independent and direct cause of change, but considers its results as the outcome of interaction between technical capabilities, human resources, organizational structure, and institutional controls.

Therefore, the question is no longer whether AI will change human resource management, but rather concerns the nature of the model that enterprises will adopt: will it be a technical model focused on automation, surveillance, and productivity, or a smart human model that employs technology to enhance efficiency, equity, trust, and sustainability?

The study concludes that the future of human resource management will not be a management without humans, but a management in which humans are more capable of employing technology, participating in decisions, producing knowledge, and guiding organizational transformation.

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