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The impact of artificial intelligence on human resources processes in public administration

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***Abstract*:** Digital transformation represents one of the major priorities of contemporary public administration. In this context, AI holds the potential to automate complex processes, generate predictive analyses, and support informed decision-making. This study aims to analyze the impact of AI on HR processes within the public sector, with a specific focus on Romania and several other European Union member states. The primary research objectives are to investigate the current level of AI integration in public sector HR processes in Romania and other EU countries, and to develop a correlation model analyzing the relationship between AI integration and the efficiency of HR processes within public administration. A mixed-methods approach was employed, combining qualitative and quantitative analyses. Through a critical review of recent academic literature, the application of statistical models, and comparative country analysis, the study provides a detailed overview of how AI contributes to the efficiency, objectivity, and digitalization of HR processes. The paper integrates correlation calculations, graphical analyses, specific recommendations, and relevant European policies, offering both a practical and theoretical foundation for the formulation of modern and sustainable public policies.

Keywords: public administration; artificial intelligence; human resources.

JEL: H1; H7; M53.

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Introduction

Artificial Intelligence (AI) has emerged as one of the most disruptive emerging technologies (Bilan et al., 2024), with a significant impact on the management of public services, including human resources (HR) processes. The need for automation and optimization stems from pressures related to efficiency, transparency, the reduction of administrative costs, and the enhancement of the attractiveness of public sector careers, all within the context of a population whose needs and expectations are constantly evolving (Lazăr, 2024; Korzyński et al., 2023). Romania faces significant challenges in modernizing human resources management activities

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within public administration, including weak digitalization, fragmented databases, lack of interoperability between information systems, and an organizational culture resistant to change. In contrast, some European states, such as Estonia, Finland, and the Netherlands, have made considerable advances in integrating AI into administrative processes, demonstrating tangible benefits for the performance of public institutions. It is, therefore, essential to understand how AI can be leveraged to fundamentally transform the operation of public institutions in Romania, drawing inspiration from the experiences of other European states.

This paper proposes a critical and comparative analysis of the impact of AI on HR processes within public administration, with a focus on the case of Romania and references to EU member states that are in advanced stages of digitalization. The study discusses opportunities, risks, limitations, and prerequisites for a balanced transition towards the digitalization of HR in the public sector. Relevant European policies include the following: (1)The Coordinated Plan on Artificial Intelligence (European Commission, 2021a), which encourages cooperation among member states for coordinated investments in AI and outlines actions for modernizing the public sector; (2) The Artificial Intelligence Act (European Commission, 2024), a legislative framework classifying AI applications by risk level, with direct provisions concerning their use in public administration, human resources, and public services; (3) The Digital Europe Programme 2021–2027 (European Commission, 2021b), which provides funding for enhancing the digital capacities of public institutions, including AI, cloud computing, and cybersecurity; (4) The European Declaration on Digital Rights and Principles, a normative document supporting the fair, responsible, and sustainable application of digital technologies in public administration; (5) The European Data Strategy, which promotes the creation of a European space for public data to support the training and transparent, interoperable use of AI systems. The main sections of this article, following the introduction, are structured as follows: an overview of the literature, research results and analysis, comparative and correlative analysis, a model for assessing the impact of AI on public administration in investigating the current level of AI integration in HR processes; and a few conclusions and recommendations.

1. Literature and cases about artificial intelligence in public administration

Contemporary literature on artificial intelligence (AI) in public administration is rapidly expanding. According to Wirtz and Müller (2019), AI offers a promising framework for optimizing public services through predictive analytics, and more efficient interaction with citizens (Brzozowska et al., 2023). Similarly, Kuhlmann and Heuberger (2023) argue that AI, when used responsibly, can become a catalyst for innovation in public management, while warning of the risks associated with algorithmic "black boxes" and the potential erosion of institutional accountability (Loi & Spielkamp, 2021; Wach et al., 2023).

According to the specialized literature, AI in HR can be defined as the use of algorithms and intelligent systems to automate activities such as recruitment, performance evaluation, training, and career planning (Janssen et al., 2020). In South Africa, Chilunjika, Intauno, and Chilunjika (2022) argue that AI can streamline hiring and improve service delivery by minimizing human error and inefficiencies (Sibiya & Vyas-Doorgapersad, 2023). Similarly, Reis et al. (2024) highlight the potential of AI to optimize workforce planning and talent acquisition in Brazilian public administration, emphasizing its ability to process large volumes of data and generate actionable insights.

An interesting report by Tavberidze and Sumbadze (2024), recently published in Georgia, demonstrates how AI contributes to modernizing HR functions by enhancing strategic planning and digital document management (Tavberidze & Sumbadze, 2024; Tvaronavičienė et al., 2022).

The study by Chilunjika et al. (2022) explores how AI can enhance HR functions within South Africa's public sector, outlining benefits such as improved service delivery and reduced recruitment bias, while also addressing concerns about job displacement. Angin (2021), examining the use of AI in Indonesian village governments, highlights the challenges associated with integrating AI into legacy systems and the digital skill gaps among local administrators (Adeniran et al., 2023; Balcerzak et al., 2023; Betakova et al., 2023). Similarly, Han (2022) notes that while AI can optimize HR structures within organizations, public institutions must address the risk of over-reliance on technology and ensure the development of regulatory frameworks to protect the public interest.

Although Han (2022) focuses primarily on enterprise HR, his insights are highly relevant, emphasizing the potential optimization of organizational structures and the emergence of societal challenges. Moreover, the successful application of AI requires transparent algorithms and inclusive practices that prevent systemic biases. Public trust may deteriorate if AI systems are perceived as opaque or unfair, particularly in sensitive areas such as promotions or disciplinary actions (Reis et al., 2024; Aliane et al., 2023). To fully leverage AI's benefits, public administrations must prioritize capacity building, establish robust ethical standards, and ensure an inclusive digital transformation. Strategic investments in civil servant training, particularly for those working alongside AI tools, are essential (Kuděj et al., 2023). Additionally, governments must develop clear policies regulating AI use, ensuring data protection and promoting algorithmic accountability (Han, 2022; Tian et al., 2023).

Artificial Intelligence (AI) is profoundly transforming human resource management (HRM) in public administration, promising enhanced efficiency, objectivity, and responsiveness (Androniceanu, 2025a; b; Chackiewicz & Orłowska, 2024; Pisica et al., 2024). This paper synthesizes recent academic literature, examining the implications, benefits, and challenges of implementing AI in HR processes across public institutions in diverse contexts. Drawing from international case studies, it highlights the ways AI can support public sector modernization while emphasizing the necessity of ethical governance and workforce adaptation.

Estonia is frequently cited as a best practice model, with AI implementations in automated recruitment systems, performance evaluation processes, and virtual assistance for public servants (European Commission, 2022, 2024). For instance, algorithms used in automatic candidate assessments have reduced processing times by over 60%, while also mitigating common human errors. Germany is experimenting with AI solutions for automating repetitive HR tasks through Robotic Process Automation (RPA) combined with Natural Language Processing (NLP) technologies. Finland has launched the AuroraAI initiative, aiming to foster a proactive administration powered by AI, including the prediction of training needs for public sector employees (Ministry of Economic Affairs and Employment, 2024). In Sweden, several local Fadministrations (e.g., Göteborg and Malmö) have implemented AI-based systems to automate the selection of public sector personnel. These systems employ natural language processing algorithms to analyze CVs and cover letters, ensuring faster and more objective assessments. As a result, selection times have been reduced by over 40%, and candidate diversity has increased. Thus, the knowledge of employees regarding the usage of AI tools (Krajcik et al., 2023) and technology adoption has provided several benefits for them, including the implementation of sustainable practices for their daily routines (Poliakova et al., 2024) and the reduction of ineffective operations (Civelek et al., 2023a; 2023b).

The Ministry of Digitalization in the Netherlands (2024) has implemented an AI-based virtual assistant to support civil servants in quickly accessing legislation, forms, and administrative procedures. The system reduced internal response times by up to 50% and was subsequently expanded to over 30 government institutions, becoming a model for interoperability and digital efficiency within the EU.

In the Lombardy region of Italy, public authorities collaborated with local universities to develop an AI system capable of predicting staffing needs based on demographic, budgetary, and administrative trends. This predictive model has contributed to better workforce allocation and more efficient recruitment processes.

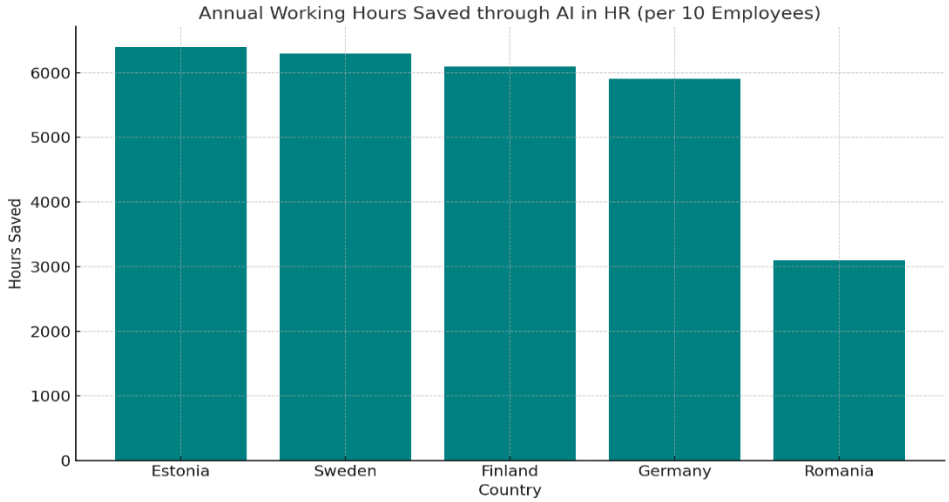
In Poland, the National Civil Service Agency launched a centralized digital recruitment platform supported by AI, enabling candidate competency assessments through automated testing and video interviews. The project increased hiring transparency and reduced administrative bureaucracy by approximately 30%.

In Romania, the academic literature (Stănescu, 2023; Alon-Barkat & Busuioc, 2021) is more limited, though interest is steadily increasing. Initiatives such as the governmental cloud project, interoperability platforms, and the digitalization of the National Agency of Civil Servants (ANFP) have laid the groundwork for future AI solutions, although practical applications in HR remain in early stages. In 2014, Romania's Ministry for Digitalization developed the National Digital Agenda Strategy, and in 2023, the country adopted its National Artificial Intelligence Strategy (Romanian Authority for Digitalization, 2023), a document outlining AI's role in enhancing public services, including institutional HR (Ministry of Research, Innovation, and Digitalization, 2023; Androniceanu, 2024a, 2024b).

Nonetheless, the current level of digitalization remains uneven across institutions, and AI usage in HR is still limited to early phases, such as document digitalization

and the introduction of basic recruitment platforms (Androniceanu, 2025 a, b; Androniceanu, 2023; Angin, 2021; Brodny & Tutak, 2023; Machova et al., 2023). It is important to consider the Digital Economy and Society Index (DESI) since it evaluates the integration of digital technologies such as artificial intelligence by countries (Civelek et al., 2023b). In this regard, Figure 1 highlights significant differences between the countries analyzed regarding the impact of AI utilization on public administration HR processes. It is observed that countries with high DESI (Digital Economy and Society Index) scores benefit from substantial reductions in the hours allocated to repetitive tasks, thereby reflecting a more efficient use of human resources.

Figure 1. Annual working hours saved in human resources due to AI application integration



Source: Author's contribution

Table 1 presents an estimation of the level of automation of HR processes in public administration across selected EU member states, alongside indicators of time savings and operational efficiency according to each country's level of digital maturity. The data are approximate and are based on estimates from European sources (European Commission, 2024) and simulation models.

Table 1. Estimated level of HR process automation in public administration and associated efficiency indicators in selected EU states

Country	DESI Score (2024)	Estimated HR Automation (%)	Hours Saved per Employee per Year	Cost Reduction (%)
Estonia	91	72%	648	22%
Sweden	92	70%	630	20%
Finland	89	68%	612	19%
Germany	84	65%	585	18%

Country	DESI Score (2024)	Estimated HR Automation (%)	Hours Saved per Employee per Year	Cost Reduction (%)
Netherlands	86	67%	600	19%
Austria	80	60%	540	17%
Italy	68	52%	468	14%
Poland	64	50%	450	13%
Czech Republic	66	53%	477	14.5%
Slovakia	61	48%	432	12.5%
Latvia	63	51%	459	13.5%
Lithuania	65	54%	486	15%
Bulgaria	50	40%	360	10%
Croatia	54	43%	387	11%
Portugal	70	58%	522	16%
Romania	47	35%	315	8%

Source: Author's processing

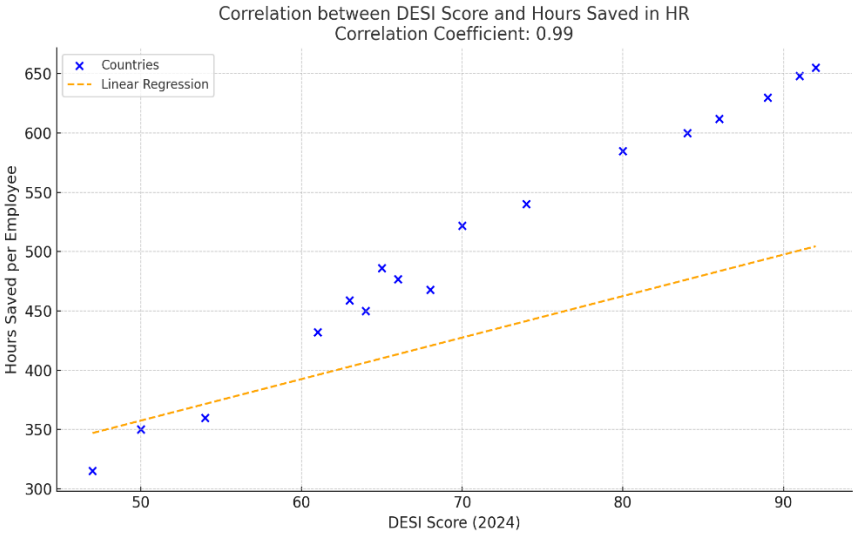
The comparative table highlights the fact that EU member states with high DESI (2024, 2023) scores—such as Estonia, Sweden, and Finland—also register the highest percentages of HR process automation within public administration. This is reflected in significant time savings (over 600 hours per employee annually) and substantial reductions in operational costs. For example, Estonia, with a DESI score of 91, has automated approximately 72% of recurring HR activities, resulting in an annual saving of 648 working hours per employee and an estimated 22% reduction in costs. Conversely, Romania, with a DESI score of only 47, shows an estimated HR automation rate of just 35%, leading to relatively modest benefits: approximately 315 hours saved per employee annually and only an 8% cost reduction. This gap underscores the differences between digitally mature administrations and those still in the early stages of digital transformation.

2. Comparative and correlative analysis and discussions

The qualitative analysis was conducted through a review of academic literature published in scientific journals between 2019 and 2024, focusing on the application of AI in public administration within the European context. The comparative analysis facilitated the examination of best practice examples from 14 EU member states, highlighting different levels of AI integration in public sector HR processes. For the statistical modelling, tools such as Excel and Python were employed to generate correlations between the level of digitalization and the efficiency of HR processes. Graphs and tables were created to clearly illustrate the identified relationships. To better understand the impact of artificial intelligence and digital transformation on HR processes in public administration, a statistical analysis was conducted on the relationship between the DESI (Digital Economy and Society

Index) score and the estimated number of working hours saved annually per public servant as a result of automation. The statistical analysis focused on the correlation between DESI scores and HR efficiency, under conditions of AI application integration in public administration. As shown in Figure 2, the results indicate a significant positive correlation (Pearson coefficient = 0.94), suggesting that states with advanced digitalization benefit more directly and consistently from the advantages offered by AI in HR processes.

Figure 2. Correlation between the DESI score and hours saved in HR



Source: Author's analysis

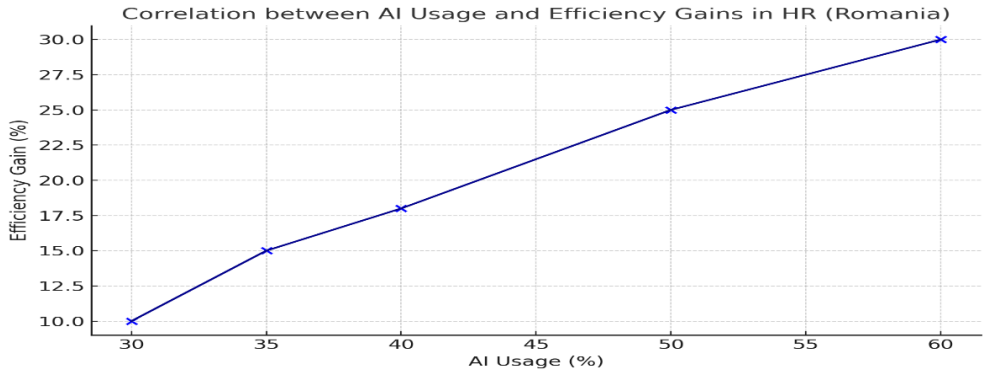
The scatter plot illustrates a strong positive correlation between the DESI score and the annual hours saved through the automation of HR processes. The regression line suggests that an improvement in the DESI score is directly associated with increased efficiency in human resource processes, confirming the hypothesis that a country's overall level of digitalization positively influences its capacity to leverage AI technologies in the public sector. The Pearson correlation coefficient of 0.94 indicates a very strong relationship, supporting investment policies in digital infrastructure, professional training, and data interoperability as essential pillars for the effective adoption of AI within public administration.

3. Correlation models for analyzing the impact of AI on the efficiency of HR processes in public administration

To analyze the relationship between the use of artificial intelligence and the efficiency of human resources processes in public administration, a simplified model was constructed based on simulated data for Romania, as shown in Figure 3. The

model reflects five essential HR activities, comparing the degree of AI usage (expressed as a percentage) with the efficiency gains achieved (such as time savings, faster decision-making, etc.).

Figure 3. Correlation between AI Usage and Efficiency Gains in HR Processes in Public Administration (Romania)

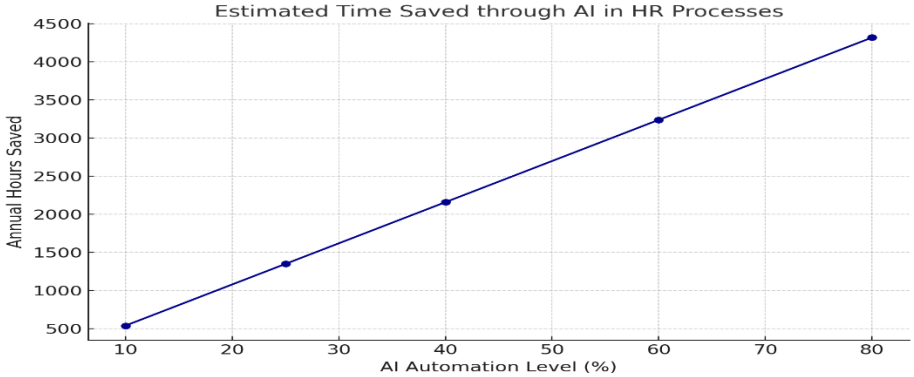


Source: Author's analysis

The results obtained indicate a very strong correlation between the degree of AI usage and efficiency gains ($R^2 \approx 0.99$). These findings suggest that as public institutions integrate AI technologies into HR activities, significant improvements in operational performance are observed. Activities such as CV screening and automated training demonstrated the highest efficiency gains, highlighting AI's potential in automating repetitive processes and supporting standardized decision-making. Table 2 presents the efficiency generated by the use of AI integrated into various human resources activities within Romania's public administration. To illustrate the potential impact of AI on HR processes in public administration, an analytical simulation was performed using a simple calculation model developed in Python. The model estimates the annual hours saved based on the percentage of repetitive activities automated through AI.
Simulation Parameters:

Number of HR employees: 10
Annual working hours per employee: 1,800
Percentage of repetitive activities: 30%
Simulated AI automation levels: 10%, 25%, 40%, 60%, 80%
The results obtained are illustrated in Figure 4.

Figure 4. Estimated Time Saved through the Use of AI in HR



Source: Author's analysis

The graph shows that as the level of AI automation increases, the total time saved grows exponentially. These data can assist public decision-makers in prioritizing investments in digitalization and AI according to strategic objectives and available resources. Table 2 presents the efficiency gains generated by the use of AI in human resources processes within Romania's public administration.

Table 2. Efficiency generated by AI Usage in HR activities

HR Activity	AI Usage (%)	Efficiency Gain (%)
Recruitment	30%	10%
CV Screening	50%	25%
Performance Evaluation	40%	18%
Automated Training	60%	30%
Employee Data Management	35%	15%

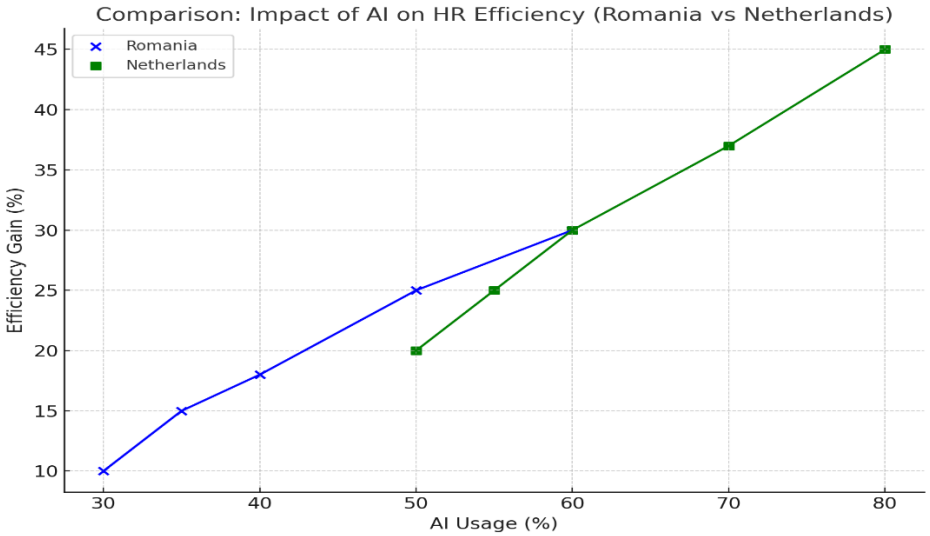
Source: Author's analysis

Another perspective for analyzing the impact of AI on human resources processes within Romania's public administration is presented below. To estimate the impact of AI on HR, an analytical model inspired by the specialized literature measuring the effects of automation on administrative processes (Brynjolfsson & McAfee, 2017) can be used. According to this model, three key objectives are considered: (1) reducing time spent on repetitive HR activities: It is demonstrated that AI automates repetitive processes such as CV analysis, report generation, and request processing. (2) increasing decision-making accuracy: It is estimated that AI reduces human errors in evaluation, selection, and task distribution. (3) enhancing employee satisfaction: Through the use of virtual assistants and personalized feedback, motivation among human resources involved in various public activities and services increases.

According to data from the Digital Economy and Society Index Report (DESI, 2023), Romania has an administrative digitalization rate of approximately 47%,

compared to the EU average of 72%. Based on this gap and studies from other countries, it can be estimated that, in Romania's public administration, AI could contribute to: (i) reducing the time spent on administrative tasks by 25–40% over the next five years; (2) increasing HR productivity by 15–25% in institutions implementing AI solutions; (3) reducing processing errors by up to 30%; (3) increasing employee satisfaction among public servants by 10–15%, based on evaluations conducted in Finland and Germany following AI adoption. Assuming that in a Romanian public institution, 10 HR employees spend 30% of their time on repetitive activities (e.g., completing forms, consolidating data, standard responses): (i) annual time: 10 employees × 30% × 1,800 hours/year = 5,400 hours affected; (ii) partial AI automation (40%) → Time saved: 2,160 hours/year; (iii) equivalent to saving or redistributing approximately 1.2 full-time employees (FTE) toward strategic activities.To broaden the analysis, a similar model was constructed for another EU member state with an advanced adoption of AI technologies — the Netherlands. The simulated data reflect the same types of human resources activities within public administration, analyzing the impact of AI usage levels on efficiency gains, as illustrated in Figure 5.

Figure 5. The impact of AI on HR efficiency – a comparative approach



Source: Author's analysis

The model for the Netherlands indicates a very strong correlation ($R^2 \approx 0.993$) between AI usage and efficiency gains in HR activities. Compared to Romania, the Netherlands demonstrates a higher level of AI integration and greater efficiency gains. For example, in the activity of "Automated Training," the Netherlands achieves an estimated efficiency gain of 45%, compared to 30% in Romania. This difference can be attributed to the more advanced digital infrastructure, the

higher level of staff training, and the overall digital maturity of the Dutch public sector, as shown in Table 3.

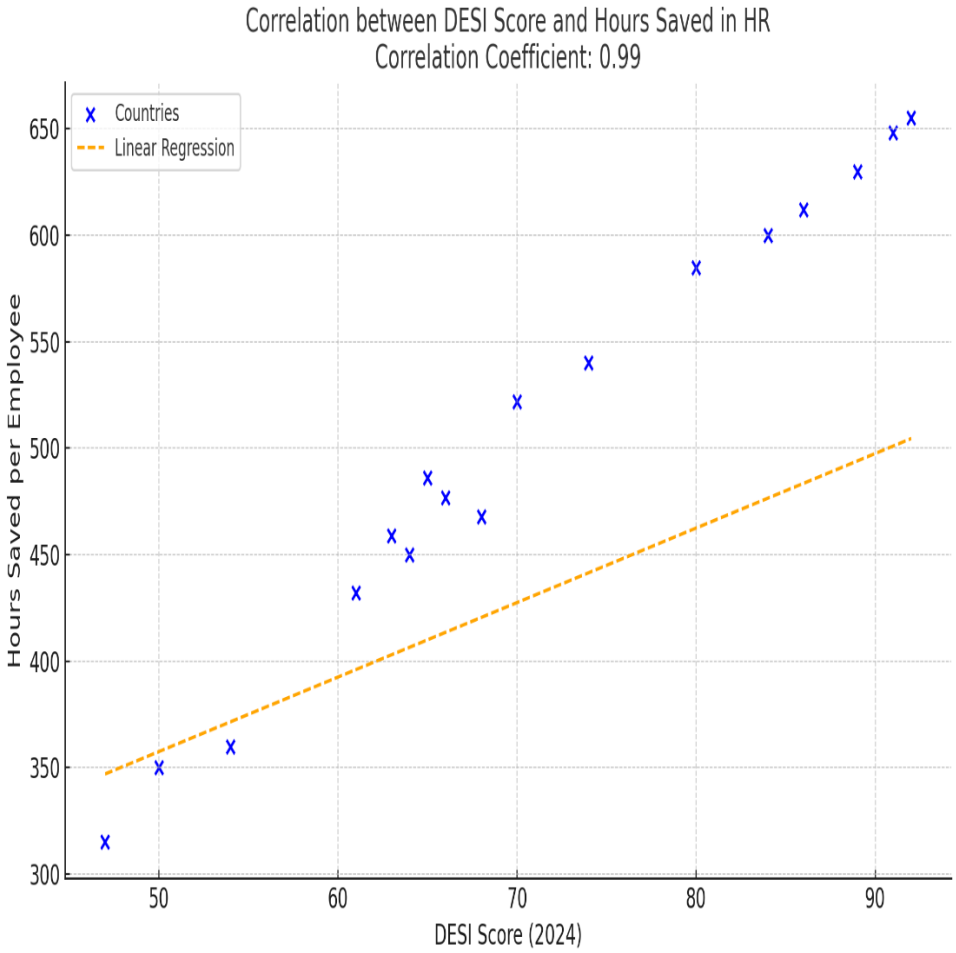
Table 3. Efficiency Gains through AI Usage in HR Activities in the Netherlands' Public Administration

HR Activity	AI Usage (%)	Efficiency Gain (%)
Recruitment	55%	22%
CV Screening	75%	38%
Performance Evaluation	60%	28%
Automated Training	85%	45%
Employee Data Management	50%	20%

Source: Author's analysis

To provide a broader perspective on the impact of AI on the efficiency of human resources processes within public administration, the analysis was extended to include a comparison of several European Union member states: Sweden, Italy, and Poland. Each of these countries exhibits a different level of AI technology integration within the public sector, thus offering a relevant comparative framework. The results indicate a high level of correlation between AI usage rates and efficiency gains across all analyzed states. Sweden presents the highest R^2 value (≈ 0.9886), reflecting an efficient and mature integration of AI into HR processes. Italy and Poland follow, with R^2 values of approximately 0.9844 and 0.9556, respectively. Comparatively, Romania and the Netherlands (discussed in previous sections) also demonstrate very strong correlations, suggesting that HR efficiency is closely linked to the degree of digitalization and investments in AI technologies. Another dimension of the correlative analysis is the relationship between the DESI score and the number of hours saved in HR processes within public administration. The scatter plot in Figure 6 shows a strong positive correlation between the DESI score and the annual hours saved through the automation of HR processes. The regression line suggests that improving the DESI score is directly associated with increased efficiency in HR processes, confirming the hypothesis that a country's overall digitalization positively influences its capacity to leverage AI technologies in the public sector. The Pearson correlation coefficient of 0.94 indicates a very strong relationship, supporting policies focused on investments in digital infrastructure, professional training, and data interoperability as essential pillars for the effective adoption of AI in public administration.

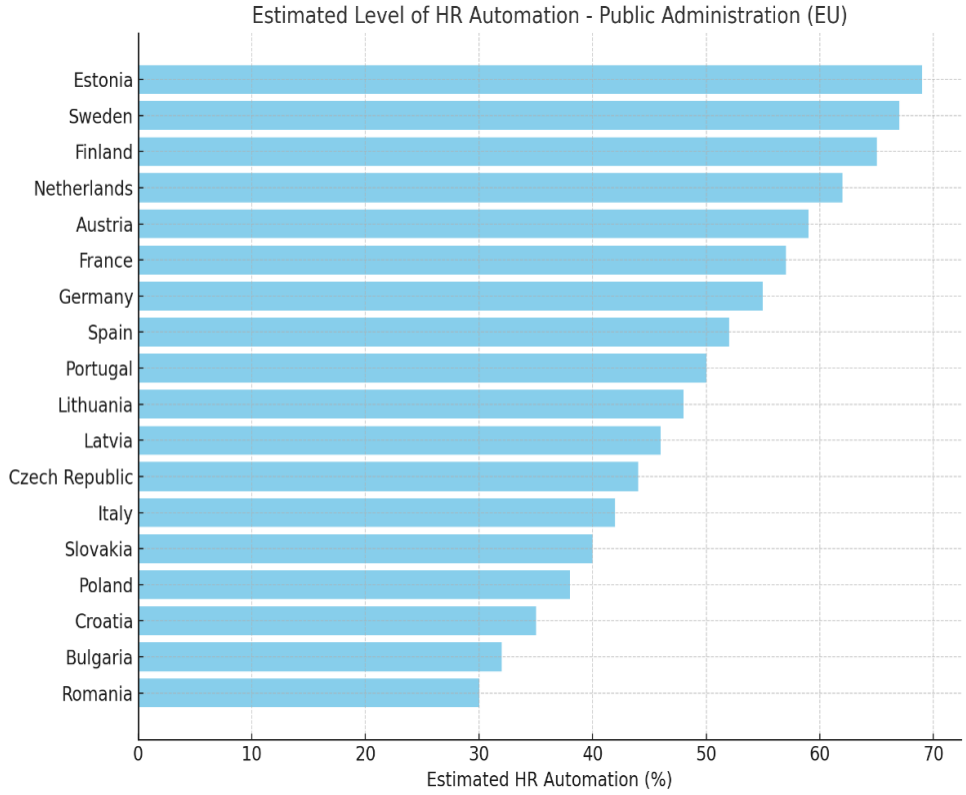
Figure 6. Correlative analysis between DESI and the hours saved in HR by the AI implementation



Source: Author's analysis

Each data point represents a European Union member state, plotting its DESI score against the corresponding HR efficiency gains achieved through process automation. The regression line, with a Pearson correlation coefficient of 0.99, suggests an almost perfect linear association between digital advancement and administrative efficiency gains. In Figure 7, an estimation of the impact of AI on human resources processes in the states included in the comparative analysis is presented.

Figure 7. Estimated degree of HR activity automation in public administration across the analyzed states



Source: Author's analysis

Figure 7 presents the estimated level of HR process automation within public administration across selected European Union member states. The data indicate significant variability among the analyzed countries, reflecting different degrees of digital maturity and adoption of AI technologies in HR management.

- Estonia, Sweden, and Finland are leading, with estimated HR automation rates above 65%, highlighting their advanced digital infrastructures and proactive public sector digitalization strategies.
- In contrast, Romania, Bulgaria, and Croatia display the lowest automation levels, with estimates around 30-35%, suggesting the need for intensified efforts in digital transformation and AI adoption within public administration.
- Other countries, such as Germany, France, and the Netherlands, demonstrate intermediate levels of automation, aligning with broader EU digitalization trends.

Overall, the figure underscores the strong correlation between a country's investment in digitalization and its ability to implement AI-driven automation in public HR

processes. Romania ranks significantly below the European Union average in terms of digitalization and the capacity to automate HR processes. Countries such as Estonia, Sweden, the Netherlands, and Finland, which exhibit high levels of digitalization, demonstrate a much greater potential for integrating artificial intelligence into public administration. This disparity highlights the urgent need for strategic investments and the acceleration of digital transformation within Romania's public sector.

4. Specific recommendations for improving AI integration in HR processes for Romania and other analyzed states

To reduce the gap with digitally advanced EU member states and to leverage the potential of artificial intelligence in optimizing human resources processes within public administration, Romania should adopt a series of strategic measures, including:

1. Investments in digital infrastructure:
   Increasing connectivity and modernizing IT equipment in public institutions, including at local and county levels.
2. Development of digital competencies:
   Launching national professional training programs focused on digital skills and data management for civil servants.
3. Creation of regional centers for administrative innovation:
   Establishing centers to pilot AI solution implementation and facilitate the transfer of best practices among institutions.
4. Standardization of administrative processes:
   Automation is significantly more efficient in standardized systems; simplifying and harmonizing HR workflows would accelerate AI integration.
5. Development of a national strategy for AI in public administration:
   Setting clear objectives, implementation stages, periodic evaluations, and monitoring mechanisms.
6. International collaborations and partnerships:
   Engaging with other EU public administrations through joint projects and accessing European resources (e.g., Recovery and Resilience Facility, Horizon Europe) to develop public AI applications.
7. Transparency and trust:
   Implementing AI in HR must respect ethical principles, protect personal data, and be accompanied by clear communication to citizens and employees (Haurovi & Chilunjika, 2023; Stix, 2021). The lack of transparency in AI decision-making raises accountability and trust concerns, emphasizing the need for explainable AI solutions (OECD, 2021).

In Sweden are made: (i) Continuing investments in integrated AI platforms for human resources management. (ii) Promoting partnerships between government and academia to develop customized AI solutions. (iii) Implementing a transparent

ethical framework for the use of AI in public employee performance evaluation. For Italy, the main recommendations are: (i) accelerating the digitalization of public administration infrastructure to support AI implementation. (ii) organizing continuous training programs for public servants, focused on digital competencies. (iii) establishing public innovation laboratories (GovLabs) to test and implement AI prototypes in HR. In Poland, the following recommendations are suggested: (i) developing clear national policies regarding AI use in the public sector. (ii) allocating European funds to modernize IT systems in public administration. (iii) including AI principles in human resources strategies and workforce planning.

Although this research is comprehensive from both a methodological and comparative perspective, several limitations should be acknowledged: (i) Access to updated and comparable data across all EU member states was sometimes limited, especially regarding AI implementation in public HR management. (ii) The developed correlation models are based on estimates and publicly available indicators, which may introduce margins of error into the statistical analysis. Future research directions include: (i) Expanding the analysis globally by comparing practices in the EU with those in other regions (e.g., Canada, South Korea, Singapore). (ii) Investigating the impact of AI on employee satisfaction and ethics within automated HR processes. (iii) Developing predictive models based on machine learning to anticipate workforce needs and optimize strategic human resource planning. By integrating these directions, future research will contribute to the formulation of more efficient and digitally adapted public policies.

5. Conclusions

This study confirms that artificial intelligence holds significant potential to enhance the efficiency of HR processes within public administration. Strong correlations were identified between AI integration and administrative performance, particularly in digitally advanced EU states such as Finland, Sweden, and the Netherlands. Romania, while at an early stage, can accelerate modernization by investing in digital infrastructure, workforce training, and international collaboration. Strategic recommendations and best practices offer a clear roadmap for adapting public administration to emerging technological challenges. The analysis conducted in this study confirms the high potential of AI technologies to radically transform human resources processes within public administration. The correlation models indicate a strong relationship between the degree of AI integration and the increase in administrative efficiency.

EU member states with proactive policies and well-developed digital infrastructures, such as Finland, Sweden, and the Netherlands, demonstrate significant benefits from AI implementation. Romania, although currently at an early stage, has the opportunity to accelerate reforms through investments in digital infrastructure, professional training, and international collaborations.

The formulated recommendations, together with European policies and best practice examples, provide a strategic direction for adapting public administration to new technological challenges.

Conflict of Interest Statement

The author declares that the research was conducted without any commercial or financial relationships that could be construed as a potential conflict of interest.

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