DEMOCRITUS UNIVERSITY OF THRACE
Faculty of Social, Political and Economic Sciences
Department of Economics

COMMEMORATIVE VOLUME FOR THE TWENTY-FIFTH ANNIVERSARY OF THE ESTABLISHMENT OF THE DEPARTMENT OF ECONOMICS

KOMOTINI
OCTOBER 2025

On the occasion 25 YEARS OF THE DEPARTMENT OF ECONOMICS

EDITORS

Ioannis Dokas
Associate Professor of Accounting

Dimitrios Dimitriou
Professor of Management, Head of the Department of Economics

PAPAZISSIS PUBLISHERS

On the occasion

25 YEARS

OF THE DEPARTMENT OF ECONOMICS

IN DEMOCRITUS UNIVERSITY OF THRACE

OCTOBER 2025

PAPAZISSIS Publishers S.A.

On the occasion
25 YEARS
OF THE DEPARTMENT OF ECONOMICS
IN DEMOCRITUS UNIVERSITY OF THRACE
Dimitrios Dimitriou, Ioannis Dokas (Editors)

ISBN: 978-960-02-4584-4

Papazissis Publishers S.A.
2 Nikitara str., 106 78 Athens
Tel.: 210-3822.496 210-3838.020
site: www.papazisi.gr
e-mail: papazisi@otenet.gr

Print:

Grafima Advertising S.A.
Eleftherias 29 (Amfitheas), Alimos, 17455, Greece
Tel. +30 210 7251600 (int.33) ¦ Mob. +30 6942 439439
www.grafimaprint.gr

DEMOCRITUS UNIVERSITY OF THRACE
Faculty of Social, Political and Economic Sciences
Department of Economics

On the occasion
25 YEARS
OF THE DEPARTMENT OF ECONOMICS
IN DEMOCRITUS UNIVERSITY OF THRACE

OCTOBER 2025

EDITORS

Dimitrios Dimitriou
Professor of Management, Head of the Department of Economics

Ioannis Dokas
Associate Professor of Accounting

PAPAZISIS PUBLISHERS
ATHENS 2025

CONTENTS

MODERN TRENDS IN RECRUITMENT AND SELECTION OF PERSONNEL (AI, AUTOMATION, LINKEDIN)

Elenica Sofijanova
Faculty of Economics, Goce Delcev University, Stip, North Macedonia,
elenica.sofijanova@ugd.edu.mk

Theodore Koutroukis
Department of Economics, Democritus University of Thrace, Komotini, Greece
tkoutro@econ.duth.gr

Marija Majhosheva
Faculty of Economics, Goce Delcev University, Stip, North Macedonia
marija.30829@student.ugd.edu.mk

Liljana Pushova Stamenkova
Faculty of Economics, Goce Delcev University, Stip, North Macedonia
liljana.30826@student.ugd.edu.mk

ABSTRACT

The rapid, dynamic, and evolutionary technological progress has contributed to significant transformations in the recruitment and selection process. The business sector is undergoing a progressive and ongoing transformation towards the integration and full adaptation of digital tools. The progress of new technologies has precipitated profound changes in the manner in which companies select and choose their employees. Contemporary trends have emphasized the utilization of artificial intelligence (AI) automation and the impact of social networks in the process of attracting and selecting suitable personnel.

In this paper, we analyze how AI improves the process and what contribution it has to improving the quality of selection decisions. The objective of this paper is to methodically analyze and explore the predominant advantages, disadvantages, opportunities, and risks associated with the utilization of contemporary technology and to determine whether the implementation of digital tools will enhance the efficacy of the recruitment and selection process by increasing its transparency.

Through a survey and statistical analysis of data obtained from HR professionals in North Macedonia and analysis of secondary data, the study finds a correlation between trust in AI and its adoption. The findings suggest that although traditional methods remain prevalent, the future of recruitment lies in a hybrid approach combining digital tools and human judgment.

This study highlights the ongoing shift from traditional to technology-enabled recruitment practices. While full automation is not yet prevalent in North Macedonia, the adoption of platforms like LinkedIn and AI-based tools is increasing, especially among IT companies.

To ensure the successful integration of artificial intelligence and digital technologies within human resource management, it is essential to invest in the continuous training of HR professionals. By equipping them with the necessary skills and knowledge, organizations can enhance their capacity to leverage advanced tools effectively. Equally important is the development of comprehensive ethical guidelines that govern the use of AI, with particular attention to promoting fairness, transparency, and the protection of sensitive employee data. Furthermore, organizations are encouraged to adopt hybrid models that balance the efficiency of automation with the irreplaceable value of human expertise and intuition. Such models not only improve decision-making process, but also foster trust and adaptability among employees. To accelerate the broader adoption of these innovations, it is vital to showcase real-world examples of successful implementation. The future of recruitment lies in balancing technological advancement with ethical, inclusive, and human-centric approaches.

Keywords: *artificial intelligence, platforms, recruitment, selection, human resource development*

1. Introduction

Recruiting and retaining suitable personnel is a growing challenge for modern organizations operating in a fast-paced and competitive global environment. The nature of work has changed, with employees now placing greater emphasis on flexibility, well-being, and company values rather than solely on salary and job stability (LinkedIn Talent Solutions, 2023). Simultaneously, businesses face pressure to attract and retain talent capable of navigating these evolving demands (Cappelli, 2019).

To meet these challenges, organizations are integrating digital tools, including artificial intelligence and recruitment platforms, into their talent acquisition strategies. These innovations have shifted the landscape from traditional, manual processes to more automated, data-driven approaches (Upadhyay & Khandelwal, 2018; Van Esch et al., 2019). This paper explores these developments, focusing on the implications of AI, automation, and LinkedIn in modern recruitment.

Traditional recruitment relied heavily on manual processes—newspaper ads, referrals, job fairs, and face-to-face interviews. While these methods ensured human interaction and in-depth evaluation, they were time-consuming and limited in reach (Dineen & Allen, 2016).

In contrast, modern recruitment leverages technologies like:

- AI and automation, which assist in screening resumes, predicting candidate fit, and reducing time-to-hire (Tambe et al., 2019; Meijerink et al., 2020).
- LinkedIn and similar platforms, which facilitate talent sourcing, employer branding, and networking (LinkedIn Talent Solutions, 2023).
- Applicant tracking systems (ATS), which streamline application management (Upadhyay & Khandelwal, 2018).
- Chatbots and VR tools, which improve candidate experience and enable remote recruitment (Van Esch et al., 2019).

Numerous studies highlight the benefits of these tools in terms of cost-effectiveness, efficiency, and candidate satisfaction (Chamorro-Premuzic et al., 2017; Tambe et al., 2019). However, concerns remain regarding data privacy, bias, loss of human judgment, and ethical implications (Leicht-Deobald et al., 2019).

A significant challenge confronting contemporary business enterprises pertains to the identification and retention of personnel who are well-suited for specific roles. Businesses operate in conditions of dynamic and rapid technological change and great global competition. The requirements for employees are becoming more and more specific and dynamic, necessitating expertise, dedication, and knowledge from the workforce. Furthermore, organizations encounter difficulties in identifying suitable personnel. These personnel must possess the ability to attract new employees and also ensure their continuous engagement within the organization. In the contemporary era, employees have become increasingly transient, transitioning between jobs with greater frequency. This phenomenon stands in contrast to the past, when individuals prioritized security and stability in their professional pursuits, and employment was the primary objective. In the contemporary professional landscape, the demands placed upon employees have undergone a significant transformation, becoming increasingly multifaceted in nature. These contemporary demands encompass a wide array of conditions and criteria that were not previously subjects of discourse. The majority of requirements and conditions are established by the job candidates themselves. This shift represents a departure from historical practices, in which employers wielded a predominant influence in shaping the terms of employment.The criteria for employment have evolved beyond the traditional factors such as job position and salary. A new emphasis has emerged, placing significant value on the manner in which companies support and care for their employees. This encompasses aspects such as the allocation of free time, the company's capacity to nurture its workforce, their mental well-being, and the provision of opportunities for additional leisure time.

The evolving perspectives of employees and the mounting, nuanced demands of contemporary organizations have precipitated a paradigm shift in recruitment and selection methodologies. These fundamental functions in the identification of suitable personnel are becoming increasingly integrated with advanced digital tools and platforms. The advent of artificial intelligence, new platforms, and automation has precipitated a paradigm shift in the dynamics of the labor market, thereby facilitating a more expeditious and streamlined approach to acquiring the requisite personnel. The majority of businesses have recognized the advantages of this approach and have concentrated on aligning their applications and corporate identity with the contemporary paradigm.

2. Literature Review

The recruitment and selection of personnel have evolved dramatically in recent decades, shaped by rapid technological advancement, digital transformation, and shifting expectations in the labor market. Traditional recruitment models, characterized by manual screening, print advertisements, and face-to-face interviews, have been increasingly replaced by data-driven, automated, and platform-based approaches. These modern tools—particularly artificial intelligence (AI), automation, and professional networking platforms such as LinkedIn—are fundamentally reshaping how organizations identify, assess, and engage talent.

Historically, recruitment relied on time-intensive processes such as in-person job fairs, newspaper advertisements, and manual screening of resumes (Dineen & Allen, 2016). While these methods allowed for a deep, personalized assessment of candidates, they were often limited in reach and scalability. With the globalization of labor markets and the digitization of business processes, there has been a growing need for faster, more efficient, and wider-reaching recruitment strategies (Cappelli, 2019).

AI and automation have emerged as powerful enablers in modern recruitment. These technologies are now used to screen resumes, conduct preliminary assessments, and even predict a candidate's job performance and cultural fit through machine learning algorithms (Upadhyay & Khandelwal, 2018; Tambe, Cappelli, & Yakubovich, 2019). AI-driven tools can reduce time-to-hire, minimize human biases in candidate evaluation, and enhance the overall efficiency of recruitment processes (Meijerink, Bondarouk, & Lepak, 2020). For example, predictive analytics can analyze past hiring data to identify the traits and qualifications of high-performing employees, thereby improving the precision of candidate selection.

However, the adoption of AI also raises significant concerns. Scholars have noted risks related to algorithmic bias, lack of transparency in decision-making, and over-reliance on technology that may inadvertently perpetuate discriminatory practices (Leicht-Deobald et al., 2019). These challenges highlight the importance of ethical frameworks and human oversight in AI-based recruitment.

LinkedIn and similar digital platforms have become central in the talent acquisition process, offering new pathways for sourcing both active and

passive candidates. Unlike traditional job boards, LinkedIn combines job postings with professional profiles, endorsements, and networking capabilities, enabling recruiters to evaluate candidates in a more holistic context (Van Esch, Black, & Ferolie, 2019). The platform also facilitates employer branding, allowing companies to communicate their culture and values to potential applicants (LinkedIn Talent Solutions, 2023).

According to research, companies that actively manage their employer brand on LinkedIn experience higher application rates, better candidate engagement, and stronger retention outcomes (Chamorro-Premuzic, Akhtar, Winsborough, & Sherman, 2017). Moreover, the use of advanced search filters, AI-driven matching algorithms, and real-time analytics on LinkedIn has significantly improved the efficiency of candidate sourcing and outreach.

Applicant Tracking Systems (ATS) have become standard in large organizations, enabling recruiters to organize, filter, and track applications efficiently. ATS platforms often integrate with AI tools to automate resume parsing and shortlist candidates based on predefined criteria (Upadhyay & Khandelwal, 2018). In addition, chatbots and virtual assistants are increasingly being used to engage with candidates in the early stages of recruitment, answer FAQs, schedule interviews, and provide updates throughout the application process (Van Esch et al., 2019). These tools enhance the candidate experience by offering immediate responses and reducing uncertainty.

Despite the benefits of these technological advancements, several scholars stress the importance of addressing the associated risks. Data privacy, informed consent, fairness, and transparency are critical concerns in the use of AI and digital recruitment tools (Leicht-Deobald et al., 2019). Furthermore, excessive reliance on algorithms may undermine the human element in recruitment, leading to a loss of intuition, empathy, and personalized judgment in hiring decisions. Researchers advocate for hybrid models that combine technological efficiency with human expertise to ensure balanced and ethical hiring practices (Meijerink et al., 2020).

The integration of artificial intelligence into recruitment processes has introduced a range of benefits that significantly enhance the efficiency and quality of hiring. AI allows companies to process large volumes of candidate data rapidly, enabling predictive analytics and automated decision-making based on predefined job criteria (Tambe, Cappelli, & Yakubovich, 2019; Upadhyay & Khandelwal, 2018). This facilitates more efficient candidate

screening and better alignment between job requirements and candidate qualifications. Notably, AI supports 24/7 availability, improves candidate engagement through tailored interactions, and enhances communication via chatbots and virtual assistants powered by natural language processing (Van Esch, Black, & Ferolie, 2019). These tools contribute to a more personalized and consistent candidate experience, while also reducing recruiters' workload by automating routine tasks (Meijerink, Bondarouk, & Lepak, 2020). Furthermore, studies suggest that AI reduces recruitment costs in the long run and improves hiring quality by up to 52% (Chamorro-Premuzic, Akhtar, Winsborough, & Sherman, 2017).

Despite these advantages, the use of AI in recruitment is not without challenges. One major concern involves data privacy and compliance with personal data protection laws, which vary across countries (Leicht-Deobald et al., 2019). Organizations must ensure ethical and lawful data usage when processing candidate information. Another issue is the lack of human judgment in AI-driven systems; while AI excels at pattern recognition, it may overlook qualified candidates who fail to use specific keywords or who do not conform to algorithmic criteria (Tambe et al., 2019). This can lead to unintended bias and the exclusion of potentially strong candidates. Additionally, the possibility of fraudulent or inaccurate profiles on platforms such as LinkedIn raises further concerns about the reliability of automated decisions (LinkedIn Talent Solutions, 2023). Lastly, AI systems require regular updates and ethical oversight to maintain accuracy and protect user privacy. A balanced approach combining AI's efficiency with human expertise is therefore essential for fair, transparent, and effective recruitment (Meijerink et al., 2020; Leicht-Deobald et al., 2019).

3. Data and Methodology

The foundation of this study is predominantly composed of findings and statistical analysis of data obtained from primary sources, and analysis of data from secondary sources. The statistical analysis is conducted using Excel. A comprehensive review of the relevant professional literature was conducted, encompassing research publications and additional sources found in books and scientific papers. In order to better analyze and understand the existence

of artificial intelligence, automation and modern social networks that facilitate networking, it is necessary to use different approaches that will enable their more detailed examination. To be able to see the theory in practice, we continued the research using a structured questionnaire, which we formed in a way that allowed us to see how many of our Macedonian companies rely on modern methods of selection and recruitment of personnel and how much they trust them. Interviews with some of the recruiters were conducted, in order to get a clearer picture of their views on this area. The interviews gave us more personalized answers and details that we would not be able to get in a questionnaire with specific answers.

This paper implements data and analysis for recruiters who are part of different sectors. The data implemented in the research is mostly used by contacting HR managers and professionals in the field of human resources who have long-term experience in recruitment and selection of personnel.

The following set of hypotheses was established:

H0: There is a statistically significant relationship between the use of AI and trust in automated systems.

H1: The frequency of AI tool usage in daily tasks is positively correlated with perceived system transparency.

H2: Employees with higher digital literacy exhibit greater trust in AI-driven systems.

H3: Trust in automated systems mediates the relationship between AI usage and job satisfaction.

4. Results and Discussion

In order to confirm or deny the hypotheses set, we used various qualitative, quantitative and statistical methods. Initially, we used the questionnaire as an opportunity to obtain different answers from the respondents that would give us a picture of their attitude and subjective assessments of digitalization, and additionally we used cross-tabulation. Cross-tabulation helped us discover a certain connection that allowed us to confirm/deny the hypotheses set. It is a quantitative, descriptive statistics that helped us reach the appropriate results.

This survey was conducted among people who are part of the HR sector in various industries and was conducted on the LinkedIn platform. The survey itself shows that most of the respondents come from the IT industry, which proves that this sector, unlike others, is more present on LinkedIn in Macedonia. Of the respondents, 54.9% are users of artificial intelligence, automation and digital platforms, which means that it cannot yet be said that modern methods are accepted in our country. Of the tools listed in the survey, the most used are LinkedIn and Chat GPT, and the use of these tools by 58.7% is assessed as partially positive. Analyzing the fact that a very small percentage of people responded that these tools have a negative impact, it can be concluded that digitalization certainly has a future in our country and in the field of HR and recruitment. In terms of the extent to which these tools are used, there is still no enviable level, but we say again that there is hope that the situation will change, given the fact that only 17.6% of respondents answered that they never use LinkedIn to select a candidate. In terms of trust, recruiters are still a bit skeptical and do not rely entirely on digital tools. According to the interviews with them, we realized that, digital tools only help traditional ones and speed up the process of selecting a candidate. In general, they use LinkedIn to select candidates, and then continue with traditional interviews, testing, etc. The surveyed recruiters use LinkedIn for different things and for different purposes, like finding candidates, reviewing profiles, publishing advertisements, etc. Regarding the question of whether they believe that they receive quality candidates through LinkedIn, the majority of them, i.e. 51%, believe that the fact of whether they will receive a quality or less quality candidate depends mostly on the position they are filling. A general comment and conclusion is that they believe that the highest quality personnel can be found when filling a position in the field of Information Technology because such types of profiles are most present on this network. Half, or 50% of the respondents believe that there may be a risk of discrimination through LinkedIn, and 32.7% believe that it is very small. The majority of the recruiters agreed with the last question, or as many as 80.4% responded that in the future the modern recruitment process and the presence of artificial intelligence will be more present.

In order to more reliably analyze the relationship between trust in modern tools and their use or non-use, we included analysis through cross-tabulation and ANOVA:

Table 1. Cross Tabulation

	Trust AI	Do not trust AI	Don't know	Total
Uses AI	8	8	6	22
Does not use AI	4	13	11	28
Total	12	21	17	50

Source: Authors research

Table 2. Expected Values

	Trust AI	Do not trust AI	Don't know
Uses AI	5.28	9.24	7.48
Does not use AI	6.72	11.76	9.52

Source: Authors research

P- value	0.19

The result obtained from the cross-sectional analysis showed that p-value = 0.1899=> 0.19, this result is greater than the standard significance level of 0.05. From this we cannot come to a final statistical result that there is a significant relationship between AI and trust in automated selection systems, but we can freely say that respondents who have greater trust in AI and automated systems use them more, while those who do not trust them more refrain from using them. Finally, it can be noted that the use of new tools is related to trust, but it also depends on a number of other factors such as: the experience of recruiters, knowledge of the systems, the skepticism of recruiters towards innovations, technological readiness and so on. With these results, we cannot completely rule out the first hypothesis.

Additionally, we used ANOVA where we looked at recruiters who use artificial intelligence in the recruitment process and their level of trust, which was marked by answers Yes (that they trust AI) I don't know, and No (recruiters who do not trust artificial intelligence). To do this analysis, we looked at questions 2 and 6 of the survey and obtained the following results:

With a value of 2 for the second question: Do you use artificial intelligence (AI) or automated tools in the recruitment process? Recruiters who use

artificial intelligence in the recruitment process have answered with a value of 1, and those who do not use it with a value of 1. On the 6th question: . Do you trust in automated candidate selection systems? Those who do not trust digitalization answered with a 1, those who are neutral with a 2, and those who trust it with a 3. An ANOVA was conducted for users who use AI and who have different levels of trust in it and the following results were obtained:

Anova: Single factor

SUMMARY

Groups	Count	Sum	Average	Variance
6. Do you trust automated candidate selection systems?	51	94	1.843137	0.654901961
2. Do you use artificial intelligence (AI) or automated tools in your recruitment process?	51	74	1.45098	0.25254902

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	3.921568627	1	3.921569	8.643042351	0.004078	3.936143
Within Groups	45.37254902	100	0.453725			
Total	49.29411765	101				

The F – value is 8.64, which means that we obtained a value greater than the critical value 3.936. This leads to the result that there is a difference between the groups.

The p – value is 0.004<0.05, which means that the difference is statistically significant with 95% confidence.

Additionally, an analysis was conducted for users who do not use artificial intelligence and who have different levels of trust in it and the following results were obtained:

Anova: Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance
6. Do you trust automated candidate selection systems?	48	88	1.833333	0.65248227
2. Do you use artificial intelligence (AI) or automated tools in the recruitment process?	48	68	1.416667	0.24822695

ANOVA

Source of Variation	SS	df	MS	F
Between Groups	4.166666667	1	4.166667	9.251968504
Within Groups	42.33333333	94	0.450355	

The F - value is 9.25 which means that we obtained a value greater than the critical value 3.942. This leads to the result that there is a significant difference between the groups.

The p – value is 0.003 <0.05 which means that the difference is statistically significant.

The findings of this study indicate a moderate, but growing adoption of AI-driven tools among HR professionals, particularly within the IT sector. Despite the increasing global presence of AI in HR analytics, only slightly more than half of the surveyed respondents reported active usage of such technologies in their recruitment processes. LinkedIn and ChatGPT emerged as the most commonly used platforms, primarily due to their accessibility and integration into existing digital ecosystems. However, the overall frequency of usage remains limited, reflecting a cautious and gradual transition rather than widespread acceptance.

One of the central themes emerging from the analysis is the complex relationship between trust and technology adoption. While some respondents expressed confidence in AI's ability to enhance efficiency and streamline candidate selection, others maintained a preference for traditional recruitment practices, highlighting perceived risks related to bias, lack of transparency, and the inability of algorithms to fully capture human quali-

ties. Interestingly, many HR professionals view AI tools not as replacements but rather as supplementary instruments that support—but do not substitute—human judgment. This hybrid approach appears to be the prevailing sentiment, suggesting that technological adoption in recruitment is more evolutionary than revolutionary.

The analysis further revealed significant differences in trust levels across various user groups. The ANOVA results demonstrated that both users and non-users of AI hold diverse and statistically significant views regarding the reliability of automated systems. This variation underscores the importance of individual and contextual factors—such as technological literacy, previous experience, organizational readiness, and industry norms—in shaping perceptions and influencing adoption. Particularly in sectors where digital competence is higher, trust in AI systems tends to be more favorable, reinforcing the role of digital skills as a critical enabler in technology acceptance.

Moreover, concerns regarding the potential for discrimination and ethical misuse of AI tools were evident among participants. Approximately half of the respondents acknowledged a risk of bias in AI-powered recruitment platforms, particularly when algorithms operate without adequate oversight or contextual interpretation. These concerns highlight the need for clear ethical guidelines, algorithmic transparency, and mechanisms to ensure fairness and accountability in AI-supported decision-making.

From a strategic perspective, the findings suggest that while AI adoption in HR is on the rise, it remains in a transitional phase. Organizations are experimenting with digital tools, but a full transformation will likely depend on a combination of structural, cultural, and educational interventions. As the technology evolves, so too must the competencies of HR professionals, who must be equipped not only with technical skills but also with critical thinking and ethical awareness to navigate the complexities of automated recruitment.

In sum, this study contributes to the growing body of literature on AI in human resource management by offering empirical insights into user perceptions and behavioral patterns. The findings suggest that successful integration of AI in recruitment requires more than technical deployment—it demands trust-building, capacity development, and organizational alignment. As such, future research should focus on longitudinal studies that track changes in perceptions over time, incorporate standardized measures

of digital readiness, and explore the impact of AI on broader organizational outcomes such as job satisfaction, diversity, and retention.

5. Conclusion and Recommendations – Future Perspectives of AI, Linkedin and Automation in Recruitment

This study explored the integration of artificial intelligence (AI), automation, and digital platforms in recruitment and selection practices, with a specific focus on HR professionals in North Macedonia. The findings suggest a transition toward more technologically enhanced recruitment processes, particularly within sectors such as IT, which exhibit greater digital readiness. Despite the global proliferation of AI in human resource management, the adoption in North Macedonia remains uneven, with many organizations still relying on traditional approaches alongside emerging tools.

A central theme revealed through the analysis is the importance of trust in AI-driven recruitment systems. Statistical results, particularly from the ANOVA tests, demonstrated that trust significantly differs between AI users and non-users, emphasizing its role as a determinant of adoption. These findings align with broader literature suggesting that trust is a critical enabler of technology acceptance (Venkatesh et al., 2003; van Esch et al., 2019). Furthermore, the research indicates a positive feedback loop: increased exposure to AI tools leads to greater trust and, consequently, greater willingness to adopt them.

However, the study also revealed persistent concerns regarding algorithmic transparency, bias, and fairness, especially among those unfamiliar with AI systems. Nearly half of the respondents perceived a potential risk of discrimination through automated platforms, echoing concerns raised in prior studies about the ethical and legal limitations of current AI applications in hiring (Raghavan et al., 2020; Sánchez-Monedero et al., 2020).

In conclusion, while AI and automation are gradually becoming integrated into HR practices, a full transition depends not only on technological availability but also on building trust, enhancing digital competence, and ensuring ethical safeguards. The human element remains essential in final decision-making, reinforcing the need for hybrid models that combine the

strengths of both automation and human insight (Chamorro-Premuzic et al., 2019).

The recommendations based on the research are the following:

– Strengthening digital literacy among HR professionals
  Organizations should prioritize continuous digital upskilling for HR staff. Increased digital literacy leads to higher comfort levels with AI tools, reduces skepticism, and improves the quality of decision-making (Meijerink et al., 2021). This is particularly important in emerging markets, where digital divides may hinder full adoption.
– Promoting transparency of AI Systems
  Developers and vendors of AI-powered recruitment platforms should ensure algorithmic transparency and interpretability. When users understand how decisions are made, they are more likely to trust the system and adopt it ethically (Raghavan et al., 2020). Explainable AI frameworks should be embedded in all HR technology solutions.
– Development of ethical and legal frameworks for AI use
  Governments, in collaboration with HR professional bodies, must establish clear legal and ethical guidelines for AI use in recruitment. These should include safeguards against bias, requirements for data privacy compliance, and mechanisms for candidate appeals (Sánchez-Monedero et al., 2020). Alignment with global frameworks such as the EU AI Act and GDPR is critical.
– Encouragement of hybrid recruitment models
  Organizations should adopt hybrid recruitment strategies that combine automated screening with human assessment. While AI can improve efficiency in candidate shortlisting, human interaction is indispensable for evaluating soft skills, cultural fit, and ethical concerns (Chamorro-Premuzic et al., 2019; van Esch et al., 2019).
– Expansion of future research on long-term impacts
  There is a pressing need for longitudinal and cross-national studies on the impact of AI in recruitment. Future research should investigate how AI tools influence not just hiring efficiency, but also job satisfaction, organizational performance, and diversity outcomes (Upadhyay & Khandelwal, 2018).

References

Bhanumathi, P., Basu, S., & Babu, S. (2024). Artificial intelligence and machine learning-powered recruitment for smart hiring. In Global practices on effective talent acquisition and retention (pp. 20–40). IGI Global.

Cappelli, P. (2019). Your approach to hiring is all wrong. Harvard Business Review. https://hbr.org/2019/05/your-approach-to-hiring-is-all-wrong

Chamorro-Premuzic, T., Akhtar, R., Winsborough, D., & Sherman, R. A. (2017). The talent delusion: Why data, not intuition, is the key to unlocking human potential. Piatkus.

Deloitte. (2018). AI, robotics, and intelligent machines. https://www2.deloitte.com/us/en/insights/focus/human-capital-trends/2018/ai-robotics-intelligent-machines.html

Dennison, K. (2022, June 27). Are AI recruitment tools ethical and efficient? The pros and cons of ATS. Forbes. https://www.forbes.com/sites/karadennison/2022/06/27/are-ai-recruitment-tools-ethical-and-efficient-the-pros-and-cons-of-ats/

Dineen, B. R., & Allen, D. G. (2016). Internet recruiting 2.0: Shifting paradigms. In The Oxford handbook of recruitment (pp. 382–401). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780190209980.013.18

Harvard Business Review. (2019, May). Your approach to hiring is all wrong. https://hbr.org/2019/05/your-approach-to-hiring-is-all-wrong

Korn Ferry. (2024). AI in recruiting: Navigating trends for 2024. https://www.kornferry.com/insights/featured-topics/talent-recruitment/ai-in-recruiting-navigating-trends-for-2024

Leicht-Deobald, U., Busch, T., Schank, C., Weibel, A., Scherer, A., & Schafheitle, S. (2019). The challenges of algorithm-based HR decision-making for personal integrity. Journal of Business Ethics, 160, 377–392.https://doi.org/10.1007/s10551-019-04204-w

LinkedIn Corporation. (2023). About LinkedIn. https://about.linkedin.com/

LinkedIn Newsroom. (n.d.). About us - statistics. https://news.linkedin.com/about-us#Statistics

LinkedIn Talent Solutions. (2023). Global talent trends report 2023. https://business.linkedin.com/talent-solutions/reports/global-talent-trends

Meijerink, J., Bondarouk, T., & Lepak, D. P. (2020). New directions in HRM and technology research: Insights from a review of the past and predictions for the future. Human Resource Management Review, 30(1), 100690. https://doi.org/10.1016/j.hrmr.2019.100690

Mujtaba, D. F., & Mahapatra, N. R. (2024). Fairness in AI-driven recruitment: Challenges, metrics, methods, and future directions. arXiv. https://doi.org/10.48550/arXiv.2405.19699

Omnicore Agency. (2025). 90 LinkedIn statistics you need to know in 2025. https://www.omnicoreagency.com/LinkedIn-statistics/

Open Space - ETF. (n.d.). Difficulties in finding qualified IT women employees are still present in North Macedonia. https://openspace.etf.europa.eu/blog-posts/difficulties-finding-qualified-it-women-employees-are-still-present-north-macedonia

Recruiter.com. (n.d.). Pros and cons of using AI in recruiting. https://www.recruiter.com/recruiting/pros-and-cons-of-using-ai-in-recruiting/

Russell, S. J., & Norvig, P. (2020). Artificial intelligence: A modern approach (4th ed.). Pearson.

Schellmann, H. (2023). The algorithm: How AI can hijack your career and steal your future. HarperCollins.

Seppälä, P., & Małecka, M. (2024). AI and discriminative decisions in recruitment: Challenging the core assumptions. SAGE Open, 14(1), 1–15. https://doi.org/10.1177/21582440241235872

Statista. (2023). LinkedIn - statistics & facts. https://www.statista.com/topics/951/linkedin/

Tambe, P., Cappelli, P., & Yakubovich, V. (2019). Artificial intelligence in human resources management: Challenges and a path forward. California Management Review, 61(4), 15–42. https://doi.org/10.1177/0008125619867910

TechnologyAdvice. (n.d.). AI in recruiting. https://technologyadvice.com/blog/human-resources/ai-recruiting/

Thakur, A., Hinge, P., & Adhegaonkar, V. (2023). Use of artificial intelligence (AI) in recruitment and selection. In Proceedings of the International Conference on Applications of Machine Intelligence and Data Analytics (ICAMIDA 2022) (pp. [missing pages]). Atlantis Press. https://doi.org/10.2991/978-94-6463-136-4_54

Upadhyay, A. K., & Khandelwal, K. (2018). Artificial intelligence-based recruitment and selection: A recent review. International Journal of Advance Research in Computer Science and Management Studies, 6(4), 34–38.https://www.ijarcsms.com/docs/paper/volume6/issue4/V6I4-0010.pdf

Van Esch, P., Black, J. S., & Ferolie, J. (2019). Marketing AI recruitment: The next phase in job application and selection. Computers in Human Behavior, 90, 215–222. https://doi.org/10.1016/j.chb.2018.09.009