APPLYING AI IN THE RECRUITMENT AND SELECTION PROCESS AND BUILDING THE ORGANIZATIONAL CLIMATE (PART II)

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Purpose: The use of artificial intelligence (AI) also affects processes in human resource management (HRM). We address the impact of AI-led recruitment and selection (R&S) processes on organisational climate (atmosphere). Due to the pioneering practice of using AI in this area, the consequences of its application are not yet well revealed. We, therefore, propose to apply a method to interpolate phenomena already observed for a long time related to the practice of applying AI to the area of organisational climate.

Design/methodology/approach: Desk research was conducted in the context of the use of AI in HRM. We have selected review articles that highlight the opportunities and risks of using AI. The article has been divided into two parts. In the first, we attempted to identify AI activity in HRM and R&S. In the second, we have conducted a detailed case study of AI applications in S&R and discussed its impact on the organisational climate.

Findings: Our research has shown that the relationship between the use of AI in R&S and organisational climate has not been a focus of research to date. The research led to the conclusion that improvements in the efficiency of R&S caused by the application of AI, can have a significant impact on organisational climate. Due to the relatively young field of research as well as the pioneering practice of applying AI in this area, the consequences of its application are not yet well revealed.

Originality/value: Typical variables for evaluating process execution, such as time, cost, quality, safety, have become essential perspectives for evaluating R&S task execution by AI. In the case of modern organisations, where value is created from knowledge and innovation, much of which is motivated by social interactions, there is a need for a creative atmosphere. Will homogenous corporate employees, selected by predictive algorithms, be able to be creative as a team? Will anyone in a unified organisation be able to challenge existing solutions and propose other, better ones? For the sake of efficiency improvements, do we want to renounce social relationships, the excitement of a new solution? These are the dilemmas we signal. Our research points to the challenges facing HR departments and professionals in the age of the digital revolution. The practical usefulness of the study boils down to highlighting to practitioners the wider consequences of conducting recruitment and selection through AI.

Keywords: artificial intelligence (AI), recruitment, selection, organisational climate, work atmosphere, human resources management (HRM).

Category of the paper: Viewpoint.

1. Introduction

Being competitive in domestic and international markets and increasing productivity have become increasingly important in current market conditions and the globalization process. The most important source of sustainable competitive advantage for organizations is human resources. Improving organizational performance requires managing these resources according to an employee-centered approach (Ludwikowska, 2021). In this context, it is of great importance to provide employees with a positive atmosphere in the workplace (Cigdem, Reyham, 2016). The use of disruptive innovative technologies, such as artificial intelligence (AI), has been heavily exploited in the HRM literature (Prikshat et al., 2022; Prikshat, Malik, Budhwar, 2021; Del Giudice et al., 2021).

The application of artificial intelligence in the HR field brings certain benefits but also poses challenges for HRM professionals (Hunkenschroer, Luetge, 2022; Kong et al., 2021; Tippins, Oswald, McPhail, 2021; Tambe, Cappelli, Yakubovich, 2019). AI facilitates the collection of offers, helps review and unbiased evaluation of resumes, and provides precision in selecting candidates, so it can be said that the work of recruiters gains efficiency and effectiveness. Research shows (Gupta, Mishra, 2023) that although many companies have started using AI tools for recruitment, they have not familiarized themselves with all the algorithms that can be used to carry out the entire recruitment and selection process.

Particularly difficult seems to be the selection of employees with appropriate social ("soft") competencies, and value systems. These competencies are not only for the performance of tasks in contact with the customer but also, and perhaps above all, are critical for the construction of the organizational climate (atmosphere at work). A good organizational climate allows us to better withstand stressful situations and makes our job satisfaction higher and our willingness to work in a team higher. Establishing and verifying "hard" competencies is certainly a less complicated, less demanding task.

In the body of the article, we try to answer the following research questions:
1. What role does the organizational climate play in shaping a competitive enterprise?
2. Can you see a relationship between the makeup of the group, the team, and the organizational climate?
3. Does AI, through its use in R&S processes, affect the profiling of group composition?
4. So does AI have an impact on shaping the organizational climate and the long-term position of the company, and if so, what and how does this mechanism work?

This provokes further questions, viz: Based on examples of the negative consequences of using AI in the recruitment and selection process, can it be discredited? Or is the technology immature for solving complex problems? Perhaps there is something specific about AI methods that makes them difficult?

2. The rationale for caring about organizational climate

The organizational climate is a characteristic set of norms and modes of behavior in an organization that determines the behavior of employees in a team and the mutual relations of interaction and communication between them and their superiors (Penc, 2001, p. 86).

According to David A. Kolb, organizational climate is a set of relatively constant characteristics in an organization, as perceived by employees, that influence the behavior of all members of the organization (Lipińska-Grobelny, 2007). Kolb described organizational climate by proposing the following characteristics of the work environment (Lipińska-Grobelny, 2021):
- responsibility, when employees can make decisions and solve problems on their own;
- requirements to participate in challenging tasks and projects, and to encourage the maintenance of high work standards;
- rewards when good work meets reward;
- organization, defining the team's activities as well-planned and well-considered, with clear goals;
- a sense of warmth and support, relating to good social relations;
- management is based on high professional and personal competence.

On this basis, Kolb distinguished three main types of organizational climate, namely supportive, autocratic and indirect.

In a favorable atmosphere, employees are set high and clearly defined requirements that stimulate professional development. Employees are held personally responsible for carrying out the tasks assigned to them. The team's activities are well organized and well thought out. When necessary, their members can count on the support of their co-workers and also a competent and sympathetic supervisor. Communication in such conditions is two-way.

The opposite of a supportive organizational climate is an autocratic one, in which employees are faced with irrelevant and vague demands for which they are rarely held accountable. Team members are more likely to be punished or criticized when something goes wrong than rewarded and appreciated when they succeed. There is no atmosphere of trust and mutual support among employees. Subordinates do not accept the superior, oppose him or her, and are reluctant to give in. One-sided communication is most common in such groups.

Good relations between people, mutual friendliness and willingness to cooperate create a certain psychosocial order that fosters cooperation and strengthens material ties, i.e., people's focus on work issues (Penc, 2001, p. 86). The climate is the work atmosphere, viewed through the prism of practices, behaviors, procedures and rewards created by the organization (Schneider, Gunnarson, Niles-Jolly, 1994, pp. 17-30).

Organizational climate is fundamentally influenced by those factors that dominate an organization and impose certain organizational behaviors (Czerska, 2012, pp. 19-34); such factors include but are not limited to well-defined goals; dominant ideas and values; strong

personalities and role models; patterns and rules; formal and informal channels of communication within the organization.

A favorable organizational climate plays a key role in strengthening employees' belonging to the organization (Patterson, Warr, West, 2004). For managers striving for service excellence, researchers recommend increasing work engagement and organizational commitment, cultivating a supportive workplace atmosphere, and equipping employees with resources to effectively manage emotions (Lo et al., 2024).

Workplace climate positively affects creativity and productivity (Alzghoul et al., 2018; Shanker et al., 2017; Phairat, Potipiroon, 2022). Studies also confirm the link between organizational climate and job stress and burnout and retention (Lan et al., 2019).

In recent years, many companies have begun to recognize the important role of team learning in achieving competitive advantage. In this context, there is research that provides empirical support for the view that organizational climate mediates the relationship between trust and team learning (Agbejule, Rapo, Saarikoski, 2021). Leader support and a supportive organizational climate positively influence employees' learning and willingness to share knowledge (Kim, Park, 2020).

The results of a study conducted by Agnieszka Lipinska-Grobelny (2021) indicate that the higher employees rate the climate in the company, the less often counterproductive behavior at work in the form of harassment, sabotage, theft, organizational withdrawal occurs, both for women and men.

3. Case study

Artificial intelligence and algorithmic decision-making are having a huge impact on our daily lives. These systems are already being used in various areas of strategic importance, such as healthcare, business, education and justice, moving us toward a more algorithmic society. However, despite the many advantages of these systems, they sometimes directly or indirectly cause harm to users and society (Kaur et al., 2022).

3.1. Recruitment using AI

Amazon.com, a globally recognized e-commerce giant, took a strong stance to mechanize the recruitment process, thus delegating the complex task of screening and evaluating candidates' resumes to the prowess of artificial intelligence. The basic premise of this endeavor was to use the computational skills of machines to identify and select the most suitable candidates, based solely on the content of their resumes. However, the inherent limitations of artificial intelligence became glaringly apparent in this case. The AI-based recruitment tool used had a disturbing tendency to be biased toward the female gender.

How did it work? The burden of selecting the most suitable candidates for future employees was completely entrusted to the computer's autonomous decision-making (AI) capabilities. The special system was based on Amazon's recruitment data from the previous 10 years. The majority of the hires were men, which is the norm in the industry, so resumes of one gender were preferred. The solution has been in use since 2014. Probably due to a report made public by Reuters, which in 2018 triggered many unfavorable comments on the company's image, the large-scale recruitment program was declared to be put on hold.

3.2. Social media algorithms

3.2.1. Radical content on social media

A phenomenon increasingly evident in social media is the radicalization of views (Agencja marketingowa, 2023). This refers to a situation in which our beliefs become extreme. For example: in the past, the plastic packaging of a product didn't bother us; today we expect only eco-friendly packaging. Similarly, some people once met a single, ineffective doctor, and today seek advice from pseudo-specialists (charlatans) "promoted" by content that undermines the credibility of scientific research and the integrity of the medical or pharmaceutical industry. As research shows, young people are most at risk of radicalization (UNESCO, 2017).

3.2.2. Information bubbles

Social media algorithms work by presenting us with content that has already caught our interest. Each of us has encountered a situation where Facebook has suggested other shoe stores after looking at a pair of shoes for a few days. The same mechanism also applies to political and social content. After reacting to one radical post, we will be inundated with more radical posts. This creates an information bubble – we only read content that agrees with our views. It is then easy to reinforce the belief that this one radical approach is the right one.

3.2.3. Clickbaity

Clickbait is the phenomenon of creating titles or thumbnails that exaggerate the content of an article to arouse the reader's curiosity and thus compel them to click and read the content. This situation causes algorithms to favor extreme content, facilitating the process of creating information bubbles. Radicalization often leads to extremism, i.e. socially harmful actions: conflicts with neighbors, vandalism, committing fraud. Therefore, reinforcing extreme attitudes is not in the public interest.

3.3. Summary of the case study

The main conclusions that emerge from the case study are those regarding the consolidation of good and bad predictions that are developed from the data collected so far. The following phenomena are emerging: sharpening the importance of the most desirable characteristics in recruiting and evaluating candidates, linking expected characteristics to other attributes and building predictions on them, and aligning future employees to the "best model".

4. Discussion and conclusions

The use of AI in the recruitment and selection process of candidates can worsen the working atmosphere, among other things because it carries the risk of: dehumanizing R&S processes, unification of personnel, feeling unfairly treated during recruitment, and discrimination.

The sources of the dehumanization of labor are seen, among other things, in the replacement of human activities by the work of machines and computers. The first stage of this phenomenon was associated with changes in production systems, with robotization and automation. Today, thanks to advances in AI, BigDate, ML and other digital technologies, we have reached a place where routine, tedious activities where human error can occur are being replaced by algorithms. This also applies to the field of HR and R&S, especially in the dimension of organizational routines. It should be noted that the recruitment and selection process is multi-stage, the first steps are routine and tedious, the subsequent steps in terms of assessing hard competencies can be supported by AI, and the impartiality and completeness of the assessment are their advantage. Examples show that learning the algorithm to identify evaluation criteria must be corrected by humans to eliminate extremism, uniformity, exclusion and potential bias. Subsequent steps, such as assessing soft skills, value system, and attitudes, i.e., psychosocial capability assessment steps, should be conducted by an HR professional and/or ultimately reviewed in the workplace (by the team) in terms of the employee's impact on the work atmosphere. The legitimacy of delegating routine tasks to AI is also confirmed by Ore and Sposato (2021), who at the same time take the position that the key role, however, should be assigned to professional recruiters.

HR departments and employees are starting to use AI tools more and more, unfortunately, without deep thought. This is because it is required that employees in these departments gain new digital competencies, and learn to use AI in routine activities, instead of focusing on strategic aspects of R&S task execution. In particular, we are talking about the professional mapping of technical, social, and psychological competencies for individual positions, the actual management of talent, the development of organizational climate models and the attempt to align personnel profiles with this model and positions in the organization.

A study by Blumen and Cepellos (2023) found that technology and artificial intelligence bring ambiguous implications regarding diversity. The interviews examined whether technology, especially artificial intelligence, can make it more difficult to select candidates who belong to minority groups and are underrepresented in companies. This can happen because there is a risk that algorithms will be biased in selecting candidates, choosing people with the same attributes. The aforementioned researchers say that algorithms may select people similar to those already working at a company and are considered suitable because they have the cultural fit and competencies that lead to expected performance. Therefore, the company is becoming more homogeneous. Companies should pay attention when implementing the filters

used in the artificial intelligence system to ensure that candidates are not excluded and that social biases are not replicated. Depending on how these resources are used, diversity can be further compromised.

Paradoxically, well-built AI models can provide independent evaluation, which is important for candidates. However, to get to this stage of evaluation, one has to go through preliminary screens based on predictive models, which do not always do their job, selecting candidates based on the AI-developed employee model.

Another consequence of the inappropriate use of AI methods in the selection and recruitment process is the promotion of people with the profile previously most common in the company. This leads, not only to a lack of diversity (unification), but can manifest itself as discriminatory behavior.

The findings of the case studies clearly indicate that the recruitment and selection algorithms used may be imperfect in many cases. These imperfections largely involve standardizing the profiles of recruiters. On the one hand, there may be a phenomenon of radicalization of selection, resulting from the algorithm itself, while on the other hand, there will be an increase in attempts to align candidate offers with the algorithms.

Another conclusion concerns the alignment of R&S tools (algorithms) with recruitment stages. When building an organizational climate, it is important to complete teams in light of competency needs/gaps, but also with attention to the social competencies required for each position. Here, there is a fundamental problem of whether AI is capable of collecting the information to make such an assessment, and whether it is ethical to collect such data. This is a similar problem to that in behavioral systems for assessing the creditworthiness of individuals.

In order to limit the negative effects of AI, it is necessary to clearly define the expected competencies of candidates, and exclude elements that cannot be taken into account by the algorithm. At the stage of behavioral and psycho-social assessment, it is necessary to involve an HR employee to establish, through personal contact, the social competencies required for the built atmosphere in the company. It is necessary to conduct periodic audits of the results generated by AI to make these systems trustworthy (Kaur et al., 2022). Del Giudice et al. (2021) even claim that humanoids enhance human potential, so we should not be overly concerned about the impact that future artificial intelligence will have on business and society.

In the case of modern organizations, where value is created from knowledge and innovation, much of which is motivated by social interactions that take place in a specific place and time, there is a need for a creative atmosphere. So, will the homogeneous employees of a corporation, selected by predictive algorithms, be able to be creative as a team, will the polarization of creative debates leading to new solutions disappear, will someone in a unified organization be able to challenge existing solutions and propose other, better ones? These are the dilemmas we face. Are we willing to give up, for the price of simple efficiency improvements, social relationships, creative debates, excitement over a new solution, things that also make us human.

The findings of the analysis support exploring and understanding the connections among organizational culture, organizational climate, creativity, innovation, commitment, and the use of artificial intelligence in HRM. It is essential to illustrate the role and impact of artificial intelligence in supporting HRM activities, as well as to examine the dynamics of human-machine interaction and its implications for employees.

References

1. Agbejule, A., Rapo, J., Saarikoski, L. (2021). Vertical and horizontal trust and team learning: the role of organizational climate. *International Journal of Managing Projects in Business, Vol. 14, No. 7*, pp. 1425-1443, doi: 10.1108/IJMPB-05-2020-0155

2. Agencja marketingowa – platforma marketerów (2023). *Radykalne treści w social mediach*. Retrieved from: https://freshview.pl/blog/radykalne-tresci-w-social-mediach-czy-sa-dobra-strategia/, 5.02.2024.

3. Alzghoul, A., Elrehail, H., Emeagwali, O.L., AlShboul, M.K. (2018). Knowledge management, workplace climate, creativity and performance: The role of authentic leadership. *Journal of Workplace Learning, Vol. 30, No. 8*, pp. 592-612.

4. Blumen, D., Martines Cepellos, V. (2023). Dimensions of the use of technology and Artificial Intelligence (AI) in Recruitment and Selection (R&S): benefits, trends, and resistance. *Cadernos EBAPE.BR, Vol. 21, No 2*, doi: 10.1590/1679-395120220080x.

5. Cigdem, K., Reyham, B. (2016). The Roles of Organizational and Ethical Climate on Individual Performance of Employees. *Business Management Dynamics, Vol. 5, No. 8,* pp. 27-38.

6. Czerska, M. (2012). Wpływ kultury na zachowania organizacyjne. In: K. Jaremczuk (Ed.), *Przedsiębiorczość – natura i atrybuty. Tom pierwszy.* Tarnobrzeg: Państwowa Wyższa Szkoła Zawodowa im. S. Tarnowskiego w Tarnobrzegu.

7. Del Giudice, M., Scuotto, V., Orlando, B., Mustilli, M. (2021). Toward the human – centered approach. A revised model of individual acceptance of AI. *Human Resource Management Review, Vol. 31, No. 2*, doi: 10.1016/j.hrmr.2021.100856.

8. Gupta, A., Mishra, M. (2023). Artificial Intelligence for Recruitment and Selection. In: P. Tyagi, N. Chilamkurti, S. Grima, K. Sood, B. Balusamy, (Eds.), *The Adoption and Effect of Artificial Intelligence on Human Resources Management, Part B (Emerald Studies in Finance, Insurance, and Risk Management)* (pp. 1-11). Leeds: Emerald Publishing Limited, doi: 10.1108/978-1-80455-662-720230001.

9. Hunkenschroer, A.L., Luetge, C. (2022). Ethics of AI-Enabled Recruiting and Selection: A Review and Research Agenda. *Journal of Business Ethics*, *Vol. 178,* pp. 977-1007, doi: 10.1007/s10551-022-05049-6.

10. Kaur, D., Uslu, S., Rittichier, K.J., Durresi, A. (2022). Trustworthy artificial intelligence: a review. *ACM Computing Surveys (CSUR), Vol. 55, No. 2*, pp. 1-38, doi: 10.1145/3491209.

11. Kim, E.-J., Park, S. (2020). Transformational leadership, knowledge sharing, organizational climate and learning: an empirical study. *Leadership & Organization Development Journal, Vol. 41, No. 6*, pp. 761-775, doi: 10.1108/LODJ-12-2018-0455.

12. Kong, H., Yuan, Y., Baruch, Y., Bu, N., Jiang, X., Wang, K. (2021). Influences of artificial intelligence (AI) awareness on career competency and job burnout. *International Journal of Contemporary Hospitality Management, Vol. 33, No. 2*, pp. 717-734, doi: 10.1108/IJCHM-07-2020-0789.

13. Lan, Y.-L., Huang, W.-T., Kao, C.-L., Wang, H.-J. (2019). The relationship between organizational climate, job stress, workplace burnout, and retention of pharmacists. *Journal of Occupational Health, Vol. 62, No. 2*, doi:10.1002/1348-9585.12079.

14. Lipińska-Grobelny, A. (2021). Organizational climate and counterproductive work behaviors – the moderating role of gender. *International Journal of Occupational Medicine and Environmental Health, Vol. 34, No. 4*, pp. 513-525.

15. Lipińska-Grobelny, A. (Ed.) (2007). *Klimat organizacyjny i jego konsekwencje dla funkcjonowania pracowników.* Łódź: Uniwersytet Łódzki.

16. Lo, Y.-C., Lu, C., Chang, Y.-P., Wu, S.-F. (2024). Examining the influence of organizational commitment on service quality through the lens of job involvement as a mediator and emotional labor and organizational climate as moderators. *Heliyon, Vol. 10, Iss. 2*, doi: 10.1016/j.heliyon.2024.e24130.

17. Ludwikowska, K. (2021). The mediating role of employee-oriented human resource policy in the relationship between strategic human resource management and organisational performance. *Forum Scientiae Oeconomia, Vol. 9, No. 2*, pp. 131-150, doi: 10.23762/FSO_VOL9_NO2_7.

18. Ore, O., Sposato, M. (2021). Opportunities and risks of artificial intelligence in recruitment and selection. *International Journal of Organizational Analysis, Vol. 30, No. 6*, pp. 1771-1782, doi: 10.1108/IJOA-07-2020-2291.

19. Patterson, M.G., Warr, P.B., West, M.A. (2004). Organizational climate and company performance: the role of employee affect and employee level. *Journal of Occupational and Organizational Psychology, Vol. 77*, pp. 193-216.

20. Penc, J. (2001). *Kreowanie zachowań w organizacji.* Warszawa: Agencja Wydawnicza Placet.

21. Phairat, P., Potipiroon, W. (2022). High performance work systems and innovative work behavior among telecom employees: the mediating roles of organizational climate for innovation and psychological empowerment. *ABAC Journal, Vol. 42, No. 3*, pp. 214-231.

22. Prikshat, V., Malik, A., Budhwar, P. (2021). AI-augmented HRM: antecedents, assimilation and multilevel consequences. *Human Resource Management Review, Vol. 32, No. 2*, pp. 1-18, doi: 10.1016/j.hrmr.2021.100860.

23. Prikshat, V., Patel, P., Varma, A., Ishizaka, A. (2022). A multi-stakeholder ethical framework for AI-augmented HRM. *International Journal of Manpower, Vol. 28*, pp. 689-707, doi: 10.1108/IJM-03-2021-0118.

24. Schneider, B., Gunnarson, S.K., Niles-Jolly, K. (1994). Creating the climate and culture of success. *Organizational Dynamics, Vol. 23, Iss. 1*, pp. 17-30.

25. Shanker, R., Bhanugopan, R., van der Heijden, B.I.J.M., Farrell, M. (2017). Organizational climate for innovation and organizational performance: The mediating effect of innovative work behavior. *Journal of Vocational Behavior, Vol. 100*, pp. 67-77.

26. Tambe, P., Cappelli, P., Yakubovich, V. (2019). Artificial intelligence in human resources management: challenges and a path forward. *California Management Review, Vol. 61, No. 4*, pp. 15-42, doi: 10.1177/0008125619867.

27. Tippins, N.T., Oswald, F.L., McPhail, S.M. (2021). Scientific, Legal, and Ethical Concerns About AI-Based Personnel Selection Tools: A Call to Action. *Personnel Assessment and Decisions, No. 7, Iss. 2*, doi: 10.25035/pad.2021.02.001.

28. UNESCO (2017). *Youth and violent extremism on social media: mapping the research*, doi: 10.54675/STTN2091.