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Perception of the Role of Artificial Intelligence in Supporting Cognitive and Decision-Making Processes in Organizations

ABSTRACT

This article analyzes the role of artificial intelligence in improving cognitive and decision-making processes in organizations, taking into account the context of the ongoing digitization of enterprises. The aim of the study was to determine the extent to which employees perceive artificial intelligence as a tool that supports competency development, analytical processes, and decision-making in organizations, as well as to assess the stability of these perceptions over a short time horizon. The study also sought to identify the areas in which AI is perceived as most and least useful in the context of cognitive and decision-making processes, and to evaluate the practical significance of changes in the level of acceptance between the two measurement waves. The research was conducted using a diagnostic survey in two stages, differing in sample size and separated by a single quarter. This allowed for the capture of short-term changes in the perception of the role of artificial intelligence. Analysis using the Cohen's h

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effect index showed that the differences between the studies were marginal. This confirms the stability of attitudes toward the technology. It also indicates its established position as a tool supporting cognitive and decision-making processes. The results have practical significance, pointing to the need to integrate AI with competency development processes and organizational culture. The added value of the study stems from the combination of theoretical and empirical perspectives and the use of an effect measure in the analysis of attitudes toward artificial intelligence.

INTRODUCTION

The dynamic development of digital technologies, along with their increasing integration with economic activity, makes the impact of artificial intelligence on the functioning of modern organizations particularly important, both cognitively and practically. In an environment of accelerating digitization, enterprises are increasingly utilizing advanced analytical tools. Machine learning systems are also being implied to support cognitive, decision-making, and operational processes. This transformation is leading to profound changes in the way information is collected and processed. It is also altering the structure of the relationship between humans and technology in the workplace. The aim of the study was to determine the extent to which employees perceive artificial intelligence as a tool that supports competency development, analytical processes, and decision-making in organizations, as well as to assess the stability of these perceptions over a short time horizon. The study also sought to identify the areas in which AI is perceived as most and least useful in the context of cognitive and decision-making processes, and to evaluate the practical significance of changes in the level of acceptance between the two measurement waves.

The article consists of theoretical, empirical, and analytical-interpretative sections. The theoretical section presents the fundamentals of digitalization and its importance for the development of modern enterprises. It then discusses the application of artificial intelligence in cognitive and decision-making processes in organizations. The empirical section describes two studies conducted one quarter apart. This study aimed to capture changes in the perception of the role of artificial intelligence among organizational employees. The Cohen's h effect index was used to analyze the results. This index enabled the assessment of the practical significance of differences in the distribution of responses between the studies. The next section of the article contains an interpretation of the obtained results, identifying the limitations of the research, methodological and practical implications, and directions for further analysis. The added value of the article can be considered the combination of theoretical and empirical approaches. This allows for a deeper understanding of the cognitive and decision-making processes supported by artificial intelligence. It also allows for the identification of how this technology can support the development of competencies, organizational effectiveness, and innovation in modern enterprises.

THE IMPACT OF DIGITALISATION ON THE DEVELOPMENT OF MODERN ENTERPRISES

Digitalization can be considered one of the most important transformational processes in the modern economy. It fundamentally influences the way businesses operate and develop. (Omol, 2024; Li et al., 2024; Nezhad et al., 2024; Pokala, 2024a). With the ongoing development of information and communication technologies, organizations increasingly rely on integrated digital systems. These systems support process automation, streamlined communication, and more effective resource management. (Apriani

et al., 2024; Wu et al., 2024). Digital transformation goes far beyond the technical modernization of a company. It is a strategic development direction that redefines business models, customer relationships, and ways of creating value. (Buonocore et al., 2024; Zopounidis & Lemonakis, 2024; Junaedi & Edmond, 2024). In the modern economic environment, digitalization can be considered the foundation of innovation, flexibility, and adaptability, constituting a condition for maintaining competitiveness in a dynamically changing market. (Kallmuenzer et al., 2025; Kılıç & Atilla, 2024; Zaitsev et al., 2024).

With the widespread adoption of digital technologies, companies have begun to transform their operational and organizational processes by introducing solutions enabling real-time data integration, personalization of offers and improvement of decision-making processes. (Adewusi et al., 2024; He et al., 2024). Digital management systems allow for ongoing monitoring of results, trend analysis, and rapid response to changes in the environment. (Tiwari et al., 2024; Qi et al., 2024). This undoubtedly translates into increased efficiency and transparency of the organization's operations. (Guo et al., 2024; Liu et al., 2024). This change covers production and logistics areas, as well as human capital management, internal communication, and employee competency development. (Chandima et al., 2024; Krap et al., 2024). As a result, digitalization leads to a gradual shift in focus from traditional forms of management to models based on knowledge, data, and human-technology collaboration. (Li et al., 2024; Nezhad et al., 2024). Companies that effectively and efficiently use the potential of digital tools gain the ability to learn, experiment, and implement innovations faster. (Buonocore et al., 2024; Omol, 2024). As a result, this allows for quick response to changes, but also enables active creation of them. (Kobets et al., 2024; Tarabasz, 2024). In this respect, digitalization is becoming the basis for the implementation of modern technologies, including artificial intelligence (AI), the application of which in cognitive and

decision-making processes can be said to open a new stage of organizational development. (Pokala, 2024b; Korada, 2024; Fandora et al., 2025; Kılıç & Atilla, 2024; Kallmuenzer et al., 2025; Guo et al., 2024; Liu et al., 2024).

ARTIFICIAL INTELLIGENCE AND ITS APPLICATION IN COGNITIVE AND DECISIONAL PROCESSES IN ORGANIZATIONS

Artificial intelligence can now be considered one of the key tools for the transformation of modern organizations. (Neiroukh et al., 2024; Jaboob et al, 2024). AI affects both the efficiency of cognitive processes and the quality of decision-making. (Csaszar et al., 2024; Brink et al., 2024). Its role is not limited to technological support. It is increasingly seen as an integral element of the work environment, allowing employees to improve their analytical, interpretative, and creative skills. (Bevilacqua et al., 2025; Abbas Khan et al., 2025). In the space of knowledge-based organizations, AI acts as a catalyst for learning processes (Bobitan et al., 2024). Supports understanding of complex concepts and facilitates the acquisition of new information by generating examples, analogies, and simplified models (Love, 2024; Chen & Wei, 2024). The ability of AI algorithms to translate and explain complex phenomena, in turn, promotes the development of employees' cognitive competencies (Bevilacqua et al., 2025; Jaboob et al., 2024). This allows them to identify cause-and-effect relationships more quickly and make better decisions under conditions of uncertainty. (Neiroukh et al., 2024; Kaggwa et al., 2024).

In terms of organizational processes, AI supports reporting, data analysis and information processing in such a way as to enable faster formulation of conclusions and creation of fact-based solutions. (Rane et al., 2024; Pokala, 2024b). Automation of data processing allows employees to be relieved of repetitive tasks,

allowing them to focus on activities requiring reflection, creativity, and interpretation of results. (Martins, 2024; Pokala, 2024b). The use of AI in the analysis of texts, reports, and numerical data allows for the rapid identification of errors, but also their correction. (Oguntibeju, 2024; Booyse & Scheepers, 2024). Ultimately, it translates into higher quality studies and decisions made within the organization. (Neiroukh et al., 2024). At the same time, AI technology provides inspiration in creative and decision-making processes. It generates alternative solutions to problems that can serve as a starting point for innovation or process optimization. (Biloslavo et al., 2024; Kaggwa et al., 2024).

AI is also used to improve reflective skills and self-improvement of employees (Bevilacqua et al., 2025). Systems that generate questions, tests, and decision-making scenarios support the development of competencies (Bobitan et al., 2024; Love, 2024). They allow for effective cognitive training and analysis of the consequences of decisions made in a simulation environment. (Chen & Wei, 2024). These tools stimulate the learning-by-doing process, fostering a deeper understanding of business processes and the relationships occurring in the work environment. (Balcıoğlu & Artar, 2024). In this perspective, AI supports educational processes in the organization, but above all, it becomes an element of the employee competence development system, in line with the concept of a learning organization. (Bobitan et al., 2024; Bevilacqua et al., 2025).

In the operational and strategic dimension, AI also helps in the processes of selection, synthesis and interpretation of information (Csaszar et al., 2024; Pokala, 2024b). This is achieved by creating summaries, digests, and compilations of content from various sources. (Valle-Cruz et al., 2024; Naim et al., 2024). The ability of systems to integrate distributed data helps to increase the coherence of organizational knowledge (Rane et al., 2024). Furthermore, based on extensive information, it allows managers to quickly formulate conclusions. (Brink et al., 2024; Biloslavo et al.,

2024). Such applications contribute to increasing the effectiveness of internal communication, making data-driven decisions, and building an organization's information advantage. (Neiroukh et al., 2024; Martins, 2024).

Therefore, AI can be considered as a cognitive partner of humans. (Bevilacqua et al., 2025; Abbas Khan et al., 2025). It is a tool that supports thinking, analysis, and decision-making, and its role far exceeds the importance of technology that automates tasks. (Csaszar et al., 2024; Booyse & Scheepers, 2024). Its use enables a better understanding of the complexity of the organizational environment (Biloslavo et al., 2024; Kaggwa et al., 2024). Moreover, it supports strategic reflection processes, strengthening the adaptability of enterprises. (Naim et al., 2024; Pokala, 2024b). As a result, AI plays a significant role in shaping an organizational culture based on knowledge, openness, and innovation. (Valle-Cruz et al., 2024; Balcıoğlu & Artar, 2024). In this way, AI has become one of the main factors determining the competitiveness and agility of modern organizations. (Neiroukh et al., 2024; Martins, 2024).

DATA AND METHODS

The aim of the study was to determine the extent to which employees perceive artificial intelligence as a tool that supports competency development, analytical processes, and decision-making in organizations, as well as to assess the stability of these perceptions over a short time horizon. The study also sought to identify the areas in which AI is perceived as most and least useful in the context of cognitive and decision-making processes, and to evaluate the practical significance of changes in the level of acceptance between the two measurement waves. The study also aimed to assess the degree of stability of attitudes toward the use of artificial intelligence in the organizational context. It was crucial to determine whether significant differences in the level

of acceptance for specific functions of this technology could be observed over a short period of time.

A research hypothesis was formulated, which assumed that the perception of AI's role in organizations is characterized by a high level of stability in the short term. However, differences between studies are statistically insignificant, falling within the range of a small effect size. It was also assumed that the highest levels of acceptance would be maintained in areas related to creative decision support processes and the development of employee competencies. Slightly lower results, however, would be observed in analytical and reporting functions.

The research questions addressed three key issues: (1) to what extent do employees perceive AI as a tool supporting cognitive and decision-making processes? (2) has the level of approval for AI use changed over time? and (3) which areas of application for this technology enjoy the greatest and least trust? The research method used in the study was a diagnostic survey. It was conducted in two stages in 2025. The study was conducted in two measurement waves involving 956 and 625 respondents, respectively. In both samples, young individuals dominated, primarily those aged 21-25, although groups under 20 years of age and, to a lesser extent, older respondents were also represented. The gender structure differed between the measurements, with women forming the majority. The forms of professional activity were also diverse, including both employed and unemployed individuals as well as those combining work with studies. Such a sample structure made it possible to capture perceptions of artificial intelligence among users at an early stage of their professional careers; however, it limits the generalizability of the results to populations with greater age and occupational diversity. Respondents were recruited through an open recruitment method, via the distribution of an online questionnaire within an academic environment and among young employees, which indicates a non-probabilistic

sampling approach and requires caution when interpreting the scope of generalizations.

The research tool was an author-designed questionnaire comprising a set of questions measuring perceptions of the functions of artificial intelligence in an organizational context. The questionnaire consisted of closed-ended questions rated on a five-point Likert scale and covered, among other aspects, perceived AI support in competency development, analytical processes, error correction, the generation of creative solutions, and the creation of summaries and tests. The tool also included demographic items related to age, gender, level of study, and occupational activity. The questionnaire was constructed to measure perceptions of the functional aspects of artificial intelligence rather than actual behaviors or technological performance.

Both measurements were carried out at an interval of one quarter, which enabled an analysis of the short-term stability of attitudes toward artificial intelligence. Differences in sample sizes resulted from the nature of the recruitment process and do not affect the comparability of analyses, as Cohen's h effect size coefficient-independent of sample size-was applied. The inclusion of a quarterly interval between measurements made it possible to assess whether attitudes toward AI change rapidly or tend to stabilize over a short period. The first study included 956 respondents, while the second included 625. The purpose of this separation was to capture any potential changes in attitudes toward AI over a short period of time and to verify the stability of the obtained results. Data analysis included a comparison of the distributions of responses in both samples. Calculating percentage differences (Δ) between the studies was also crucial. In order to determine the practical significance of these differences, the Cohen's h effect index was used. It allowed for the assessment of the strength of differences in proportions regardless of sample size.

To precisely assess the differences between proportions in both measurements, Cohen's h effect size coefficient was applied.

The interpretation of this coefficient follows the classical methodological guidelines presented by Cohen (1988). The h index is calculated using the arcsine transformation, which stabilizes the variance of proportions and enables the comparison of differences regardless of sample size. Cohen distinguishes three basic interpretative thresholds: $h = 0.20$ as a small effect, $h = 0.50$ as a medium effect, and $h = 0.80$ as a large effect. The values obtained in the present study fell almost exclusively within the range of 0.00 to 0.13, indicating negligible or small effects. This means that the differences between the measurements have limited practical significance, and the attitudes of respondents toward the use of artificial intelligence show a high level of stability over a short time horizon. Reference to methodological literature clearly indicates that at such low h values, changes in proportions should not be interpreted as meaningful from the perspective of inferring about the dynamics of attitudes. Incorporating Cohen's h into the analysis therefore enables a more reliable assessment of the practical significance of changes than traditional statistical significance tests, especially in studies with unequal sample sizes and a perceptual character of the data.

In this study, the hypothesis concerning the stability of perceptions of artificial intelligence was evaluated solely on the basis of effect size, without the use of classical statistical significance tests. Instead of applying procedures such as the chi-square test or tests for differences in proportions, the decision was made to use Cohen's h effect size coefficient. This measure made it possible to determine the practical significance of differences between the two measurements regardless of their sample sizes. This approach was adopted deliberately, as the goal was to capture the strength and direction of changes in response distributions rather than their formal statistical significance. The use of effect size allowed for a more adequate interpretation of the results in the context of research on technology perception, where small percentage differences may have limited cognitive relevance. Therefore, the

hypothesis was verified at the level of practical, rather than statistical, significance, which provides a more precise basis for relating the results to the short-term dynamics of organizational attitudes toward artificial intelligence.

The use of an effect indicator allowed for a more in-depth interpretation of the results, going beyond traditional statistical significance tests. It also became possible to determine whether changes in the level of approval for the use of artificial intelligence in organizations have practical significance. The obtained results largely confirmed the stability of respondents' opinions. Furthermore, they also indicated that the differences between the studies were marginal. This undoubtedly supports the hypothesis that rational attitudes towards artificial intelligence are becoming more entrenched in organizational settings.

RESULTS AND DISCUSSION

Two surveys conducted quarterly allowed for a comparison of the level of approval for various aspects of the use of artificial intelligence in organizations across the two studies (see Table 1). Data are expressed as the percentage of respondents who answered 'Somewhat Yes' or 'Definitely Yes'. The Δ column shows the change in approval between the surveys.

The study attempted to capture trends in perceptions of the role of artificial intelligence in improving cognitive and decision-making processes in organizations (based on two surveys conducted a quarter apart). The two studies differed in sample size, encompassing 956 and 625 respondents, respectively. Analysis of the results reveals a certain stability of opinion, along with the presence of subtle but significant trends. These subtleties indicate a slight decline in enthusiasm for the use of artificial intelligence in organizational work.

Table 1. Comparison of the level of approval for various aspects
of the use of artificial intelligence in organizations.

Aspect of AI utilization	Study I (n = 956): % of approval	Study II (n = 625): % of approval	Δ (change)
AI supports employee skill development	68%	65%	↓ −3 pp
AI supports reporting and analytics	58%	52%	↓ −6 pp
AI corrects errors in reports	55%	53%	↓ −2 pp
AI provides creative solutions	71%	70%	↓ −1 pp
AI supports learning through questions and tests	42%	41%	↓ −1 pp
AI generates document summaries	55%	53%	↓ −2 pp
AI compiles content from multiple sources	47%	47%	≈ no change

Note. Own elaboration.

In both studies, the highest levels of approval were given to statements regarding AI's ability to deliver creative solutions in decision-making processes and support employee competency development. In the first study, these areas were positively assessed by 71% and 68% of respondents, respectively. In the second study, the figures were 70% and 65%. Although small, the differences indicate a persistently high level of appreciation for AI's potential in generating innovative ideas and supporting professional development. This confirms that AI tools are increasingly being viewed as an integral element of the work environment, fostering creativity and organizational learning.

Slightly lower figures were recorded for the use of AI for reporting and analysis. In the first study, 58% of respondents admitted that AI supported these processes. In the second study,

however, this percentage dropped to 52%. This may indicate a growing awareness of the limitations of AI tools in terms of data reliability and the need to verify generated results. In the context of business operations, this is crucial for ensuring the quality of decision-making processes.

Similar trends in the assessment of AI's ability to identify and correct errors were observed in studies, where the approval level dropped from 55% to 53%. This decline, although small, can be interpreted as a sign of increasing user maturity. It is clear that they increasingly treat AI as a support system requiring human control and interpretation of results. A slight decline in ratings for the use of AI for document summarization and compiling content from various sources is also observed. In both cases, the level of positive indications remains within the 47-55% range. It is worth noting that in the second study, these results are slightly lower, which may be due to users becoming more aware of the difference between the speed and depth of content processing by language models. The decline in approval in this area may be a result of greater experience in the practical use of AI, or it may be the result of a more realistic perception of its capabilities.

In both studies, the lowest level of acceptance was for generating questions and tests supporting competency development (42% in the first study and 41% in the second). This result indicates that in this area, AI use remains marginal and does not constitute a significant element of daily support in organizational learning or employee development processes.

In summary, comparing the results of the two studies indicates that the perception of the role of artificial intelligence in organizations is characterized by a high level of stability. At the same time, a slight decline in approval rates is observed for most of the analyzed aspects. This can be interpreted as a manifestation of user maturation and the adoption of AI tools in the workplace. The observed enthusiasm associated with the novelty of the technology is giving way to a more balanced assessment based

on practical experience and an awareness of its limitations. As a result, artificial intelligence is no longer perceived solely as an automation tool. It is becoming a partner supporting cognitive and decision-making processes in organizations.

To further the comparative analysis, a statistical assessment of the changes between the two studies was conducted (Table 2).

Table 2. Comparison of approval levels for AI utilization
in organizations (Study I vs Study II).

Aspect of AI utilization	Study I: % of approval	Study II: % of approval	Δ (percentage points)	Cohen's h	Effect size
AI supports employee skill development	68	65	-3	0.07	small
AI supports reporting and analytics	58	52	-6	0.13	small
AI corrects errors in reports	55	53	-2	0.04	negligible
AI provides creative solutions	71	70	-1	0.02	negligible
AI supports learning through questions and tests	42	41	-1	0.02	negligible
AI generates document summaries	55	53	-2	0.04	negligible
AI compiles content from multiple sources	47	47	0	0.00	no effect

Note. Own elaboration.

This included calculating percentage differences and effect sizes. For each aspect of AI use, a change index (Δ) was determined, as well as Cohen's effect size coefficient h, which allows for an assessment of the practical significance of differences between the proportion of positive responses in both studies. The h coefficient values were calculated using the following formula:

$$h = 2 \times (\arcsin\sqrt{p_1} - \arcsin\sqrt{p_2}),$$

where p_1 and p_2 denote the percentage of positive responses in the first and second studies. According to Cohen's interpretation, h values of 0.20 indicate a small effect, 0.50 a moderate effect, and 0.80 a large effect.

The analysis clearly showed that the differences between the studies were mostly marginal or small. This demonstrates the stability of respondents' opinions in the short term. At the same time, the largest differences were noted in the use of AI for reporting and analysis (Δ = –6 pp, h = 0.13), indicating a small but noticeable decline in acceptance. In the remaining areas, the h coefficient values ranged from 0.00 to 0.07. Therefore, they can be considered statistically insignificant in a practical sense.
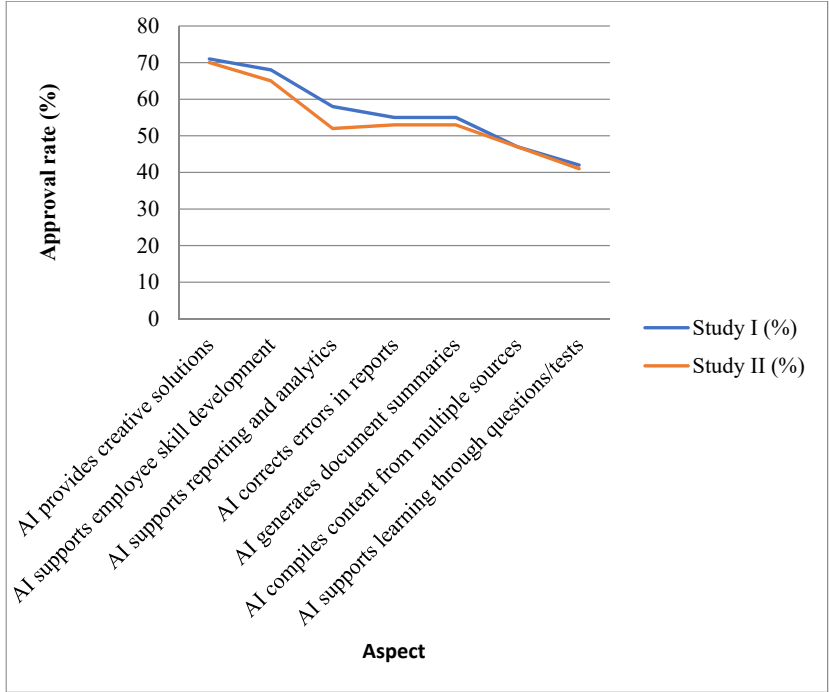
The use of an effect size indicator instead of significance testing (e.g., chi-square test) was intentional. It allowed for a better reflection of the strength of differences in the distributions of proportions between samples of different sizes. The use of an effect size measure in research on the perception of the role of artificial intelligence in organizations can be considered a significant methodological contribution, allowing for the interpretation of the results in cognitive (and not just statistical) terms.

From an organizational perspective, the stability of these indicators may indicate the consolidation of a mature attitude toward artificial intelligence, with initial enthusiasm giving way to a rational assessment of its capabilities and limitations. The high level of approval for creative decision support, coupled with a moderate decline in ratings for analytical functions, indicates that artificial

intelligence is increasingly being viewed as a heuristic tool. This tool supports thinking and innovation, not simply automates tasks.

To better illustrate the results of the two studies and highlight the direction of change in the perception of AI use in organizations, the data was visualized in the form of a figure (see Figure 1). It presents a comparison of the level of approval for specific aspects of AI use in Studies I and II. This visualization allows for a concise and clear capture of the dynamics of change between the measurements, complementing the analysis contained in Tables 1 and 2. The aim of this visualization was to present the differences between the studies graphically. This visualization allowed for

Figure 1. AI Use Approval – slopegraph (study I vs study II).

Note. Own elaboration.

the identification of both stable areas and those where approval for AI use in the workplace declined.

Analysis of Figure 1 reveals that the level of acceptance for individual AI functions remains relatively high and demonstrates significant stability over the short term. The lines connecting the values from both studies show that the differences in the assessment of individual aspects are minimal. This is confirmed by the low values of the Cohen's h effect index presented in Table 2. The largest shift is visible in the area of reporting and analysis, where the level of acceptance dropped by 6 percentage points. In the remaining cases, the changes do not exceed 3 percentage points, while their effect size is negligible or small.

The visualization in Figure 1 facilitated understanding the overall trend of the results. It indicated a clear, gradual shift from initial enthusiasm for AI tools to a more balanced and realistic assessment of their usefulness. A clear stability in approval for creative and developmental aspects was revealed, along with somewhat weaker indications for analytical and operational functions. This is valuable cognitively, as it allows us to interpret the technology adoption process as a gradual maturation of user attitudes. In this way, the visualization integrates the quantitative results from Tables 1 and 2. It therefore provides a graphical representation of the direction of change, confirming the stability of the perception of the role of AI in improving cognitive and decision-making processes in organizations.

Limitations and future research direction
It's also worth pointing out the limitations of the study. The results of the study should be interpreted with several important methodological limitations in mind, as they may influence the scope of generalizations. First, the two measurement waves differed in sample size, which-despite the use of an effect size coefficient intended to reduce the impact of this factor-may to some extent distort the comparability of the obtained response distributions.

Sample variability also includes the lack of control over its demographic and professional structure. This limits the ability to determine whether the observed differences stem from actual changes in perception or from variations in the composition of respondents. Second, the study relied exclusively on self-reported declarations of participants, which introduces the risk of cognitive biases, response tendencies, and discrepancies between declared attitudes and actual workplace behaviors. The self-descriptive nature of the data may be particularly influential in assessments of technology, which are often subject to novelty effects or social desirability biases. Third, the analysis did not incorporate control variables such as industry, professional experience, the level of digitalization within the organization, or prior exposure to AI tools. The absence of these factors restricts the possibility of more precisely explaining differences in acceptance levels and may lead to overlooking important moderators of attitudes toward technology. Therefore, the presented results should be regarded as an illustration of general perceptual tendencies. They require further research that includes more diverse samples, behavioral data, and advanced analytical models.

These include, above all, its cross-sectional nature and the relatively short time interval between the two measurement waves. The latter certainly doesn't fully capture long-term trends in the perception of the role of artificial intelligence in organizations. The quarterly difference, while enabling analysis of short-term stability in attitudes, doesn't reflect the dynamics of change over an annual or multi-year period. An additional limitation is the variation in sample size. This could have affected the accuracy of the percentage comparison (despite the use of an effect coefficient to mitigate this effect). It's also worth noting that the study was based on subjective self-reports from respondents, which may not reflect the actual use of artificial intelligence tools in the workplace. The lack of differentiation between industries and

job levels limits the generalizability of the results across organizations, indicating the need for further, more diverse analyses.

It is also worth pointing out directions for future research inspired by the analyses undertaken in this study. It would be interesting to conduct an in-depth analysis of the diversity of attitudes towards artificial intelligence, taking into account the sectoral context, the size of the organization, and the level of technological advancement of enterprises. A longitudinal approach could be considered. This would allow for the observation of the evolution of AI perception over a longer time horizon, simultaneously enabling the identification of factors favoring the adoption of this technology in management practice. It might also be appropriate to incorporate qualitative methods, such as expert interviews or case studies. This would allow for the identification of organizational and cultural mechanisms that influence the effectiveness of AI-based solution implementations. Further research should also focus on analyzing the relationship between AI use and organizational outcomes (including innovation, productivity, and employee trust and satisfaction). Such research will allow for a more comprehensive understanding of the role of artificial intelligence in shaping contemporary business models.

Methodological and practical implications
From a methodological perspective, the conducted research supports the rationale for combining quantitative analysis based on response distributions with effect size measures, allowing for a more nuanced interpretation of the results. The use of Cohen's h index enabled us to assess the practical significance of differences in the level of approval for AI between the two research samples (regardless of their unequal size).

This approach increases the credibility of conclusions and provides methodological recommendations for future research on the perception of technological innovations in organizational settings. The study also highlights the importance of conducting

analyses over short periods of time. This will allow us to capture the process of stabilizing attitudes toward new technologies. It will also allow us to observe how users' initial enthusiasm transforms into a more rational assessment of the functionalities and limitations of artificial intelligence tools.

In turn, analyzing the contribution to business practice, it can be concluded that the obtained results provide organizations with valuable guidance on the implementation, implications, and management of AI-based solutions. The stable level of user acceptance suggests that it can be perceived as a credible component of the workplace . However, it is important to note that its effective implementation depends on ensuring a balance between automation and support for employee cognitive processes. The research conclusions, however, point to the need to build an organizational culture that fosters learning, experimentation, and reflective evaluation of AI-generated results. The obtained results can also be considered a foundation for formulating training and development strategies in which AI is perceived as a tool that enhances creativity, decision-making effectiveness, and organizational adaptability in a dynamic and turbulent technological environment.

CONCLUSION

The research results provided a consistent picture of the perception of AI's role in improving cognitive and decision-making processes in organizations. A consistently high level of acceptance for AI applications in areas supporting employee competency development, generating creative solutions, and streamlining analytical processes was indicated. It should be emphasized that the small differences between the first and second surveys, confirmed by low Cohen's h coefficient values, demonstrate the stability of respondents' attitudes. They also indicate a gradual

maturation of the perception of AI in organizational settings. The results suggest that users consider AI tools much broader than just autonomous systems replacing humans. They perceive them as intelligent support for decision-making, problem-solving, and developing professional competencies.

From a scientific perspective, the conducted research contributes to a deeper understanding of technology perception in organizations. It highlights the importance of cognitive and emotional factors in the process of adopting artificial intelligence. The obtained research results confirm the need to integrate AI into organizational development strategies in a balanced manner, encompassing both technological and humanistic aspects. Artificial intelligence should be viewed as a partner supporting learning and decision-making processes, meaning much more broadly than simply replacing humans in business operations. The results provide a basis for further empirical research. This research could encompass a longer time horizon and a broader range of organizational contexts, allowing for a more comprehensive understanding of the role of artificial intelligence in building resilience, innovation, and agility in modern organizations.

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