SILESIAN UNIVERSITY OF TECHNOLOGY PUBLISHING HOUSE

SCIENTIFIC PAPERS OF SILESIAN UNIVERSITY OF TECHNOLOGY 2026
ORGANIZATION AND MANAGEMENT SERIES NO. 252

PERCEPTION OF AI, ORGANIZATIONAL SUPPORT, AND READINESS IN SMES POLAND AND ITALY

Magdalena KACZKOWSKA-SERAFIŃSKA

SWPS University, Management Institute; mkaczkowska-serafinska@swps.edu.pl,
ORCID: 0000-0003-3206-2233

Purpose: The aim of the article is to analyze the relationships between the perception of artificial intelligence (AI) technologies, the perceived usefulness of AI, the level of organizational support, and employees' readiness to use AI at work in the SME sector in Poland and Italy.
Design/methodology/approach: The study was conducted using a quantitative approach in the fourth quarter of 2025 and the first quarter of 2026 among 244 employees of SMEs from Poland and Italy. Data were collected using a structured survey questionnaire. Based on respondents' answers, six indices were constructed concerning attitudes toward AI, technology perception, perceived usefulness, organizational support, readiness to use AI, and job satisfaction. Spearman's rank correlation coefficient was applied to analyze relationships between variables.
Findings: The results indicate significant positive relationships between the perception of AI technologies, their perceived usefulness, and employees' readiness to use them at work. The strongest relationship was observed between AI perception and readiness to use it. No significant relationships were found between AI-related variables and job satisfaction.
Research limitations/implications: The limitations of the study include purposive sampling and the use of correlational analysis, which does not allow for full causal inference. Given the non-random, purposive sampling approach, the findings should be interpreted with caution.
Practical implications: The findings highlight the importance of fostering a positive perception of AI technologies and ensuring organizational support in the process of implementing new technologies in SMEs.
Social implications: A better understanding of employees' adaptation mechanisms to AI technologies may support a more sustainable digital transformation of organizations.
Originality/value: The article combines psychological and organizational perspectives and presents a comparative analysis of employees' attitudes toward AI technologies in the SME sector in Poland and Italy.
Keywords: AI technologies, organizational support, job satisfaction, SMEs, Poland and Italy.
Category of the paper: research paper.

1. Introduction

The dynamic development of artificial intelligence (AI) technologies significantly affects the functioning of contemporary organizations. Solutions based on machine learning, process automation, and big data analytics are increasingly applied in management, decision-making, and work organization. A particularly important area of their implementation is the small and medium-sized enterprise (SME) sector, which constitutes the backbone of European economies. At the same time, enterprises in this sector often operate with limited organizational and technological resources, which means that the process of adopting new technologies may differ from that observed in large organizations.

The implementation of AI technologies in the workplace has not only a technological dimension but also organizational and social implications. Employees' responses to technological change depend not only on the functionality of tools but also on psychological factors and the way the digital transformation process is managed. AI technologies can enhance work efficiency by automating routine tasks and supporting decision-making processes; however, they may also generate concerns related to job loss, the need to acquire new competencies, or increased algorithmic control.

The literature emphasizes the importance of factors such as technology perception, perceived usefulness of digital tools, and the level of organizational support in the process of employees' adaptation to new technologies. A positive perception of technology and a belief in its usefulness increase employees' readiness to adopt new solutions at work, with organizational support—such as training, access to technological tools, and substantive assistance—playing a crucial role.

At the same time, the development of the Industry 4.0 economy expands the scope of personnel-related risks, including high employee turnover, shortages of digital competencies, and the phenomenon of burnout (Malinowski, 2025). These phenomena affect employees' well-being, which is becoming an important dimension in assessing the outcomes of digital transformation. Simultaneously, AI-based technologies may support HR departments in promoting employees' mental health, for example through sentiment analysis, mood monitoring, or the use of chatbots providing personalized advice (Niedbał, Pytel-Kopczyńska, 2024).

Despite the growing interest in the implementation of artificial intelligence, relatively few studies focus on the SME sector or compare employees' attitudes across different institutional contexts. Particularly interesting is the comparison of enterprises operating under diverse economic conditions.

The aim of this article is to analyze the relationships between employees' attitudes toward artificial intelligence technologies, the perception of their usefulness, the level of organizational support, and the readiness to use AI at work in the SME sector in Poland and Italy. On this basis, the following research hypotheses were formulated:

- H1: The perception of artificial intelligence technologies is positively associated with employees' readiness to use AI at work.
- H2: The perceived usefulness of AI technologies is positively associated with employees' readiness to use them at work.
- H3: Perceived organizational support for the implementation of AI technologies is positively associated with the perception of artificial intelligence technologies.

2. Literature overview

2.1. Psychological Determinants of Adaptation to AI Technologies

The implementation of artificial intelligence technologies in organizations constitutes one of the key dimensions of contemporary digital transformation in enterprises. The literature emphasizes that AI is gradually evolving from a tool supporting operational processes into a universal technological paradigm that redefines strategic management models and decision-making processes based on real-time analysis of large datasets (Hauke, Perechuda, 2024). The significance of these changes is particularly evident in the small and medium-sized enterprise (SME) sector, where digital technologies can enhance operational efficiency, enable process automation, and expand customer bases (Szwajca, 2025). At the same time, firms in this sector often face barriers related to limited financial resources, a shortage of digital competencies, and insufficient knowledge regarding the potential applications of new technologies (Szwajca, 2025).

The impact of AI technologies on employee experience is not linear and depends both on the level of technological implementation and on employees' individual psychological resources. Research indicates the presence of an inverted U-shaped relationship between the intensity of AI implementation and job satisfaction. In the initial phase of implementation, the automation of routine tasks may increase satisfaction by reducing workload and enabling employees to focus on tasks requiring higher-order cognitive skills. However, as the intensity of AI usage increases, employees may begin to perceive it as a threat to their competencies or job security, which leads to a decline in job satisfaction (Wu et al., 2025).

The literature suggests that the impact of technology on employee attitudes is mediated by cognitive processes and psychological resources related to adaptation to career changes. A key resource in this context is career adaptability, understood as an individual's ability to

cope with dynamic changes in the work environment. From the perspective of Conservation of Resources (COR) theory, career adaptability constitutes a psychological resource that enables effective responses to the demands of a changing labor market and facilitates investment of energy in the development of professional competencies (Leong, Li, Chen, 2025).

The role of career adaptability in the context of AI technologies is moderated by two opposing psychological mechanisms: AI self-efficacy and AI anxiety. Technological self-efficacy refers to an employee's belief in their ability to effectively use digital tools, which fosters a positive perception of technology and a greater willingness to use it at work. In contrast, AI anxiety—associated with fear of job loss or feelings of technological inadequacy—may limit employees' propensity to adapt, although it does not entirely eliminate the influence of positive psychological resources (Leong, Li, Chen, 2025).

Research also indicates that employees' declared openness to technology does not always translate into its deep or advanced use in organizational practice. Studies conducted among public relations specialists show that AI tools—such as ChatGPT or Canva AI—are often used superficially, primarily as operational support rather than as an integral component of work processes (Kozakiewicz, 2025). Technological transformation is also accompanied by concerns related to the dehumanization of communication, loss of control over decision-making processes, and the limited transparency of algorithmic operations (Kozakiewicz, 2025). At the same time, contemporary research suggests that employee attitudes toward organizational change are gradually evolving toward greater flexibility and a higher readiness to acquire new competencies (Kaczkowska-Serafińska, 2025).

2.2. Managerial Strategies in Digital Adaptation

In the context of increasing digitalization, the role of management extends beyond the mere implementation of technology and includes shaping an organizational environment conducive to employee acceptance of technological change. One of the key mechanisms mitigating tensions associated with AI implementation is perceived organizational fairness. Research indicates that when employees perceive decision-making processes and resource distribution as fair, the negative consequences of technological implementation are reduced, and the decline in job satisfaction is delayed (Wu et al., 2025).

Contemporary organizations are also increasingly utilizing incentive systems supported by artificial intelligence algorithms. Reward systems based on real-time data analysis can enhance transparency in employee evaluations and strengthen motivation to achieve better performance. However, the effectiveness of such solutions depends on their perceived fairness in both procedural and distributive dimensions (Batool, Rafiq, Haider, 2025).

Leadership style also plays a significant role in the process of technological adaptation. In the SME sector, particular importance is attributed to transformational leadership, which, through inspiring a vision of organizational development and intellectually stimulating employees, fosters positive attitudes toward technological change. Research shows that

transformational leadership influences employee performance both directly and indirectly through increased job satisfaction (Roy, Swargiary, 2025).

2.3. Perceived Organizational Support and the Technological Environment

Perceived organizational support refers to employees' belief that the organization values their contributions and cares about their well-being. In the SME sector, this factor is particularly significant due to limited organizational resources and a relatively low level of formalization in management structures. According to social exchange theory, employees who experience organizational support demonstrate higher levels of work engagement and greater job satisfaction (Al Balushi, Jais, 2025; Siregar et al., 2024).

Organizational support may take both emotional and instrumental forms, including opportunities for competency development, assistance in solving work-related problems, and initiatives that promote work–life balance. Organizations offering flexible working arrangements and well-being initiatives contribute to increased job satisfaction and reduced stress levels (Al Balushi, Jais, 2025).

In the context of digital transformation, organizational support also involves providing employees with appropriate technological tools. Research conducted in European SMEs indicates that the implementation of knowledge management systems, such as wiki-based knowledge repositories, enhances job satisfaction by improving access to information and reducing uncertainty associated with the execution of technology-related tasks (Schober, Stampfl, Geyer, 2025). This suggests that employee job satisfaction depends not only on the implementation of AI technologies themselves but also on the quality of the organizational environment in which these technologies are embedded.

3. Research Methodology

The empirical study was conducted in the fourth quarter of 2025 and the first quarter of 2026 in Poland and Italy. A quantitative approach was employed, using a structured survey questionnaire as the research instrument. Data were collected using the CAWI method as well as in paper form.

The questionnaire was prepared in two equivalent language versions: Polish and Italian. The research instrument included questions related to employees' attitudes toward artificial intelligence technologies, the perception of their usefulness, the level of organizational support, and overall job satisfaction.

Given the non-random, purposive sampling approach, the findings should be interpreted with caution, as their generalizability to the broader population of SME employees is inherently limited.

Based on respondents' answers, six analytical indices were constructed by calculating the arithmetic mean of the relevant questionnaire items:

- AI_Individual_Attitude Index – individual attitude toward AI technologies.
- AI_Organizational_Support Index – perceived organizational support.
- AI_Perception Index – perception of AI technologies.
- AI_Usefulness Index – perceived usefulness of the technology.
- AI_Readiness Index – readiness to use AI.
- Job_Satisfaction Index – overall job satisfaction.

Respondents' answers were measured using a five-point Likert scale (1 – strongly disagree, 5 – strongly agree). The sampling procedure was purposive and classified as a non-probability sampling method. In total, 244 economically active employees from the SME sector participated in the study, including 110 respondents from Poland (Mazowieckie Voivodeship) and 134 respondents from Italy (Lombardy region). The sample included 67 individuals in managerial positions and 177 operational employees.

Data analysis was performed using Stata (version 9.1), SPSS, and MS Excel. Relationships between variables were analyzed using Spearman's rank correlation coefficient (ρ), which is appropriate for examining relationships between ordinal variables and in cases where the assumption of normal distribution is not met. The level of statistical significance was set at $p < 0.05$ for all analyses.

4. Characteristics of Respondents

To characterize the research sample, a percentage distribution analysis was conducted for respondents from Poland and Italy with respect to selected demographic and organizational variables, including firm size, job position, year of birth, and gender. Percentages were calculated within each country, enabling a direct comparison of sample structures.

The respondents represent enterprises of varying sizes and different organizational levels—from operational employees to managerial staff. The sample also includes diverse age cohorts, allowing for the analysis of attitudes toward artificial intelligence across different generations of employees. The gender structure includes both women and men, supporting a more balanced analysis of attitudes toward AI and job satisfaction.

In the Polish sample, the majority of respondents were employed in companies with 50-249 employees (62.7%), whereas in the Italian sample, firms with 10-49 employees predominated (78.4%). Among Polish respondents, 38.2% held managerial positions, while in Italy the share of managerial staff amounted to 18.7%. Gender distribution differed between the countries—women constituted the majority in Poland (54.5%), whereas men predominated in Italy (59.7%). The largest age group in Poland consisted of respondents born between 2001 and 2005

(32.7%), while in Italy the largest share was represented by respondents from the 1971-1980 cohort (20.9%).

5. Correlation Analysis Results

For the purposes of the analysis, six indices were constructed by calculating the arithmetic mean of the questionnaire items: *AI_Individual_Attitude*, *AI_Organizational_support*, *AI_perception*, *AI_usefulness*, *AI_readiness*, and *Job_satisfaction*. Subsequently, relationships between variables were examined using Spearman's rank correlation coefficient (ρ). In all analyses, a statistical significance level of $p < 0.05$ was adopted, and the results are presented in Table 1.

Table 1.
Correlation Analysis Results

Variable	1	2	3	4	5	6
1. AI_Individual_Attitude	1					
2. AI_Organizational_support	0,327**	1				
3. AI_perception	0,397**	0,311**	1			
4. AI_usefulness	0,290**	0,408**	0,664**	1		
5. AI_readiness	0,402**	0,331**	0,756**	0,683**	1	
6. Job_satisfaction	−0,114	0,115	0,017	0,023	0,049	1

Note. Based on the results of the author's study for N = 244; * $p < 0.05$, ** $p < 0.01$.

Source: Own elaboration.

The Spearman rank correlation analysis revealed statistically significant positive relationships among most of the analyzed variables related to the perception and use of AI technologies. The strongest correlation was observed between AI perception and readiness to use it ($\rho = 0.756$; $p < 0.01$). Strong relationships were also identified between perceived usefulness of AI and readiness for its use ($\rho = 0.683$; $p < 0.01$), as well as between AI perception and its usefulness ($\rho = 0.664$; $p < 0.01$).

Moderate positive correlations were found between individual attitudes toward AI and AI perception ($\rho = 0.397$; $p < 0.01$), as well as readiness to use AI ($\rho = 0.402$; $p < 0.01$). In contrast, no statistically significant relationships were identified between AI-related variables and job satisfaction, suggesting that factors associated with AI perception and implementation do not constitute direct predictors of job satisfaction levels in the analyzed sample.

The results indicate clear interdependencies between the perception of AI technologies, the evaluation of their usefulness, and employees' readiness to use them in the workplace. The strongest relationship was again observed between AI perception and readiness for its use ($\rho = 0.76$), indicating that individuals who perceive AI technologies more positively also demonstrate a higher willingness to implement them in professional practice. Strong positive correlations were also found between AI_usefulness and AI_readiness ($\rho = 0.68$), as well as between AI_perception and AI_usefulness ($\rho = 0.66$).

Moderate relationships were observed between individual attitudes toward AI and both perception and readiness to use it ($\rho \approx 0.40$). Relatively weaker correlations were identified between organizational support and the remaining indices, although a noticeable relationship exists with perceived AI usefulness ($\rho \approx 0.41$). At the same time, the analysis did not reveal any significant relationships between AI-related variables and job satisfaction; correlation coefficients between Job_satisfaction and the other indices were very low (ρ ranging from -0.11 to 0.05).

6. Comparative Analysis

The correlation analysis conducted on the Polish and Italian samples indicates positive relationships among most of the analyzed variables related to the perception and use of artificial intelligence technologies, although their strength varied between countries. In the Polish sample, moderate relationships were observed between AI perception, its perceived usefulness, and readiness to use it at work ($\rho \approx 0.52$-0.59), suggesting that a positive evaluation of the technology fosters greater willingness to implement it in the workplace. Individual attitudes toward AI showed weaker but still positive correlations with perception and readiness to use the technology ($\rho \approx 0.24$-0.27), while organizational support remained positively, albeit relatively weakly, associated with the other variables.

In the Italian sample, these relationships were considerably stronger, particularly between AI perception and readiness to use it ($\rho \approx 0.82$), as well as between perceived usefulness and readiness for implementation ($\rho \approx 0.74$), indicating greater coherence of attitudes toward AI. Individual attitudes toward technology also exhibited moderate correlations with perception and readiness to use it ($\rho \approx 0.38$-0.42).

A comparison of the results suggests that the relationships between AI perception, its usefulness, and readiness for its use are stronger in the Italian sample than in the Polish one. This may indicate greater consistency in attitudes toward AI among employees of Italian SMEs. At the same time, in both countries, attitudes toward artificial intelligence do not show a direct relationship with job satisfaction, suggesting that technological factors may play a less significant role in shaping occupational well-being than traditional organizational determinants.

7. Directions for Further Analysis

The conducted Spearman rank correlation analysis made it possible to identify relationships between the perception of artificial intelligence technologies, their perceived usefulness, organizational support, and employees' readiness to use them at work. At the same time, the obtained results indicate relatively weak relationships between AI-related variables and the level of job satisfaction.

However, correlation analysis only allows for the assessment of the strength and direction of relationships between variables and does not enable the determination of their relative predictive roles in explaining job satisfaction. Therefore, it is justified to conduct regression modeling in subsequent stages of the research, which would allow for the identification of factors that most strongly determine job satisfaction among SME employees.

In particular, it is advisable to estimate linear regression models in which the dependent variable would be the Job_satisfaction index, while the independent variables would include the indices constructed in the study: AI_Individual_Attitude, AI_Organizational_support, AI_perception, AI_usefulness, and AI_readiness. Including these variables in a regression model would make it possible to determine which psychological and organizational factors actually influence employees' job satisfaction.

Given the international nature of the study, it would be particularly valuable to estimate separate regression models for Poland and Italy. Such an approach would enable the identification of potential cross-country differences in the mechanisms shaping job satisfaction in the context of AI implementation. This analysis could deepen the understanding of how AI adoption affects occupational well-being among SME employees across different economic and cultural contexts.

8. Conclusion

The aim of the article was to analyze the relationships between employees' attitudes toward artificial intelligence technologies, their perceived usefulness, the level of organizational support, and readiness to use AI at work in the SME sector in Poland and Italy. The empirical study made it possible to identify significant relationships among the analyzed variables and to assess the role of psychological and organizational factors in the process of employee adaptation to new technologies.

The results of the correlation analysis indicate clear interdependencies between the perception of AI technologies, their perceived usefulness, and employees' readiness to use them in the workplace. The strongest relationship was observed between AI perception and readiness

for its use, confirming the importance of a positive evaluation of technology in the process of its organizational adoption. Strong relationships were also found between perceived usefulness and readiness to use AI, as well as between AI perception and its usefulness.

In relation to the research hypotheses, the results indicate that hypotheses H1 and H2 were confirmed, while hypothesis H3 was partially supported. This means that both a positive perception of AI technologies and the belief in their practical usefulness significantly increase employees' readiness to use these tools at work. Organizational support, in turn, shows a positive but moderate relationship with technology perception, suggesting its rather indirect role in shaping attitudes toward AI.

At the same time, no statistically significant relationships were found between AI-related variables and job satisfaction. This suggests that attitudes toward artificial intelligence do not constitute a direct predictor of job satisfaction, which may instead be more strongly influenced by organizational and social factors.

The comparative analysis of results obtained in Poland and Italy further indicates differences in the strength of relationships between the analyzed variables. In the Italian sample, the relationships between AI perception, perceived usefulness, and readiness to use the technology were clearly stronger than in the Polish sample, which may reflect greater consistency in attitudes toward new technologies among employees of Italian SMEs.

The findings point to the need for further research on the mechanisms of employee adaptation to artificial intelligence technologies, particularly in the context of organizational factors influencing job satisfaction. The application of regression models in future research stages could enable the identification of factors that most strongly determine employees' occupational well-being and deepen the understanding of the role of AI in the digital transformation processes of SMEs.

Acknowledgements

This publication was financed by SWPS University, Management Institute.

References

1. Al Balushi, B.K.B., Jais, J. (2025). Impact of supervisory and organizational support on work-life balance and job satisfaction in manufacturing SMEs in Oman. *TPM: Testing, Psychometrics, Methodology in Applied Psychology, 32*(S8), 1756-1766. Retrieved from: https://www.tpmap.org, 06.03.2026.
2. Batool, F., Rafiq, M., Haider, G. (2025). AI-based reward system and job satisfaction: The mediating role of motivation. *International Journal of Management Research and Emerging Sciences, 15*(3), 47-72. https://doi.org/10.56536/ijmres.v15i3.795
3. Hauke, K., Perechuda, K. (2024). Sztuczna inteligencja w naukach o zarządzaniu i jakości – narzędzie czy paradygmat? *Zeszyty Naukowe Akademii Górnośląskiej*, *9*(21), 13-23. https://doi.org/10.53259/2024.09.02
4. Kaczkowska-Serafińska, M. (2025). Analiza porównawcza determinantów satysfakcji z pracy i nastawienia do zmiany wśród pracowników w Polsce i we Włoszech. *Zeszyty Naukowe Akademii Górnośląskiej, 28*(4), 78-87. https://doi.org/10.53259/2025.04.08
5. Kozakiewicz, P. (2025). AI w pracy specjalistów PR: od znajomości narzędzi i praktyki wykorzystania po emocje i kompetencje adaptacyjne – raport z badań. *Zeszyty Naukowe Akademii Górnośląskiej*, *36*(12), 147-158. https://doi.org/10.53259/2025.12.15
6. Leong, F.T.L., Li, X., Chen, E.M. (2025). The relationship between career adaptability and work engagement among young Chinese workers: Mediating role of job satisfaction and moderating effects of artificial intelligence self-efficacy and anxiety. *Behavioral Sciences*, *15*(12), 1-32. https://doi.org/10.3390/bs15121682
7. Malinowski, J. (2025). Identification and Assessment of Personnel Risk in SME – Theoretical and Research Perspective. *Optimum. Economic Studies, 2*(120), 283-298. https://doi.org/10.15290/oes.2025.02.120.14
8. Niedbał, R., Pytel-Kopczyńska, M. (2024). The prospect of AI using in shaping the employees' well-being. *Scientific Papers of Silesian University of Technology. Organization and Management Series, 196*, 345-356. https://doi.org/10.29119/1641-3466.2024.196.23
9. Roy, K., Swargiary, K. (2025). Transformational leadership, job satisfaction, and employee performance in Southeast Asian SMEs. *International Research Journal of Business Studies*, *18*(2), 253-270. https://doi.org/10.21632/irjbs.18.2
10. Schober, L., Stampfl, R., Geyer, B. (2025). Unlocking potential: The effects of knowledge databases on work performance and job satisfaction in SMEs. *The Electronic Journal of Knowledge Management*, *23*(2), 61-75. https://doi.org/10.34190/ejkm.23.2.3900
11. Siregar, Z.M.E., Lubis, T., Syamsuri, A.R., Siregar, D.I., Supriadi, Y.N. (2024). Job satisfaction as mediator in the effect of perceived organizational support on employee

engagement: Evidence from SMEs in Indonesia. *Journal of Applied Management, 22*(3), 767-782. https://doi.org/10.21776/ub.jam.2024.022.03.11

12. Szwajca, D. (2025). Trends and Dilemmas of Digital Transformation of SMEs in Selected OECD Countries. *Zeszyty Naukowe Akademii Górnośląskiej, 35*(11), 278-290. https://doi.org/10.53259/2025.11.26
13. Wu, W., Yang, Y., Yang, L., Su, L., Chen, Z. (2025). The inverted U-shaped relationship between AI and job satisfaction: Empirical evidence from China's CLDS microdata. *Emerging Markets Finance and Trade,* 1-16. https://doi.org/10.1080/1540496X.2025.2548427