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Generative Artificial Intelligence and Organizational Transformation: A Systematic Review of Learning-Based Human Capital Development

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ABSTRACT

Organizational transformation increasingly requires placing learning-based human capital development at the core of strategic priorities in the context of generative artificial intelligence. The aim of this article is to conduct a systematic literature review to examine how generative artificial intelligence contributes to organizational transformation through learning and training practices. Following the PRISMA methodology, this study analyzes a total of 30 peer-reviewed articles that met the inclusion criteria. The results show that organizational transformation driven by generative artificial intelligence is closely linked to continuous learning, skills development, and people-centered training strategies.

Keywords: Generative Artificial Intelligence, Organizational Transformation, Learning-Based Human Capital Development
JEL Classifications: M1

1. INTRODUCTION

In a technological context marked by the rapid rise of generative artificial intelligence, organizations are facing profound transformations in their modes of operation, learning processes, and competency management practices. The emergence of generative models, particularly large language models, has generated both significant opportunities and growing concerns regarding the evolution of jobs, skills development, and the adaptation of human capital to new organizational requirements (Dwivedi et al., 2023).

Indeed, while the literature widely highlights the technical performance and multiple applications of generative artificial intelligence especially in education, training, and decision-making its role in organizational transformation through learning and training mechanisms remains insufficiently structured. Several studies emphasize that the successful integration of generative AI depends less on the technology itself than on organizations' ability to develop skills (Vrontis et al., 2022), support change, and foster a culture of continuous learning.

In this context, organizational transformation cannot be considered without paying particular attention to the development of human capital based on learning. Continuing education, professional development, and retraining appear to be essential levers for translating the adoption of generative AI into sustainable and effective organizational change, while limiting the risks associated with resistance to change, algorithmic bias, and ethical issues (Raisch and Krakowski, 2021). The central question that arises is therefore:

How does generative artificial intelligence contribute to organizational transformation through the development of learning-based human capital?

This research question raises several major issues, particularly regarding how organizations mobilize training and learning mechanisms to support transformation driven by generative artificial intelligence, sustain organizational performance, and ensure the long-term adaptation of human capital.

Beyond technological adoption, recent studies highlight that generative artificial intelligence is transforming organizations through new learning architectures, redefining human capital development strategies, and reshaping managerial priorities. In this context, organizations are increasingly relying on continuous learning systems, reskilling initiatives, and adaptive human resources practices to ensure that technological transformation generates sustainable organizational value rather than operational disruption.

To address this question, this study adopts a systematic literature review approach. First, it examines the theoretical foundations related to generative artificial intelligence, organizational transformation, and learning-based human capital development. Second, it systematically analyzes existing empirical and conceptual studies in order to identify the main trends, practices, and challenges associated with the use of generative AI as a lever for organizational transformation. This approach makes it possible to provide a structured synthesis of the literature and to highlight the managerial and educational implications related to human capital development in a context of technological transformation.

2. A RESEARCH METHODOLOGY FOCUSED ON A SYSTEMATIC LITERATURE REVIEW

The research methodology is straightforward and simple, involving the presentation of eligibility criteria, the research strategy, and the identification of the selected studies.

2.1. Eligibility Criteria for Selected Articles

The articles included in this systematic literature review were published in English and covered the period from January 01, 2018 to December 31, 2025. This timeframe was selected due to the emergence and rapid diffusion of generative artificial intelligence, particularly large language models, and their growing impact on organizational learning and human capital development.

Organizational transformation, as a multidisciplinary field, focuses on the processes, tools, and strategies aimed at managing organizational change in response to technological, economic, and social disruptions. In this context, generative AI is increasingly considered a transformative force that reshapes learning practices, skills development, and workforce adaptation. Consequently, only studies explicitly addressing generative artificial intelligence, organizational transformation or change, and learning-based human capital development were retained.

Furthermore, the literature highlights that successful transformation relies heavily on human-centered approaches, where learning, employee engagement, leadership support, and continuous skill development play a central role. Conversely, technology-driven change implemented without adequate learning mechanisms may lead to resistance, reduced performance, and weakened organizational cohesion. Therefore, to ensure relevance and analytical coherence, this review exclusively includes peer-reviewed articles that examine the human and learning dimensions of generative AI–driven organizational transformation (Raisch and Krakowski, 2021; Dwivedi et al., 2023).

2.2. Presentation of the Research Strategy

An initial search was conducted using the Web of Science (WoS), which was selected due to its high-quality indexing standards and multidisciplinary coverage. The first search stage employed broad keywords related to generative artificial intelligence, organizational transformation, human capital, learning, and training. This initial query generated a large number of records that could potentially be relevant to the research topic.

A first filtering step was applied by restricting the publication period to 2018-2025, which significantly reduced the number of retrieved documents. A second filtering phase focused on language (English only) and document type (journal articles and review papers), excluding editorials, book chapters, and non-peer-reviewed publications. Subsequently, subject area filters were applied, retaining studies within Business, Management, Education, Public Administration, and Social Sciences, which are directly aligned with the learning-based human capital perspective.

Due to the novelty of the research field and the diversity of terminology used, an iterative and complementary search strategy was adopted rather than relying on a single search equation. Titles and abstracts were manually screened to assess thematic relevance, followed by full-text analysis to ensure that learning and human capital development constituted a core analytical focus. After removing duplicates and applying the predefined inclusion and exclusion criteria, a final corpus of 30 articles was selected for in-depth thematic analysis, in accordance with the PRISMA guidelines.

Equation de recherche: TS = (“generative artificial intelligence” OR “generative AI” OR “GenAI” OR “large language model*” OR “LLM*”) AND TS = (“organizational transformation” OR “organizational change” OR “digital transformation”) AND TS = (“human capital” OR “human capital development” OR “skills development”) AND TS = (“learning” OR “training” OR “continuous training”).

2.3. Identification of Selected Research Projects

The identification of the studies retained for analysis followed a structured screening process consistent with the PRISMA guidelines. After the initial identification phase conducted through the Web of Science, all retrieved records were exported and consolidated to facilitate screening and duplicate removal.

In the first screening stage, titles and abstracts were examined to assess their relevance to the research objectives. Studies that did not explicitly address generative artificial intelligence, organizational transformation, or learning-based human capital development were

excluded at this stage. This step allowed the elimination of papers with a purely technical focus on AI architectures or algorithmic performance, as well as studies lacking a clear organizational or learning-related perspective.

The second screening stage involved a full-text assessment of the remaining articles. At this stage, particular attention was paid to the centrality of learning, training, and skills development in the analysis. Only studies in which human capital development through learning mechanisms constituted a core analytical dimension were retained. Articles where learning or training was mentioned only marginally or contextually were excluded.

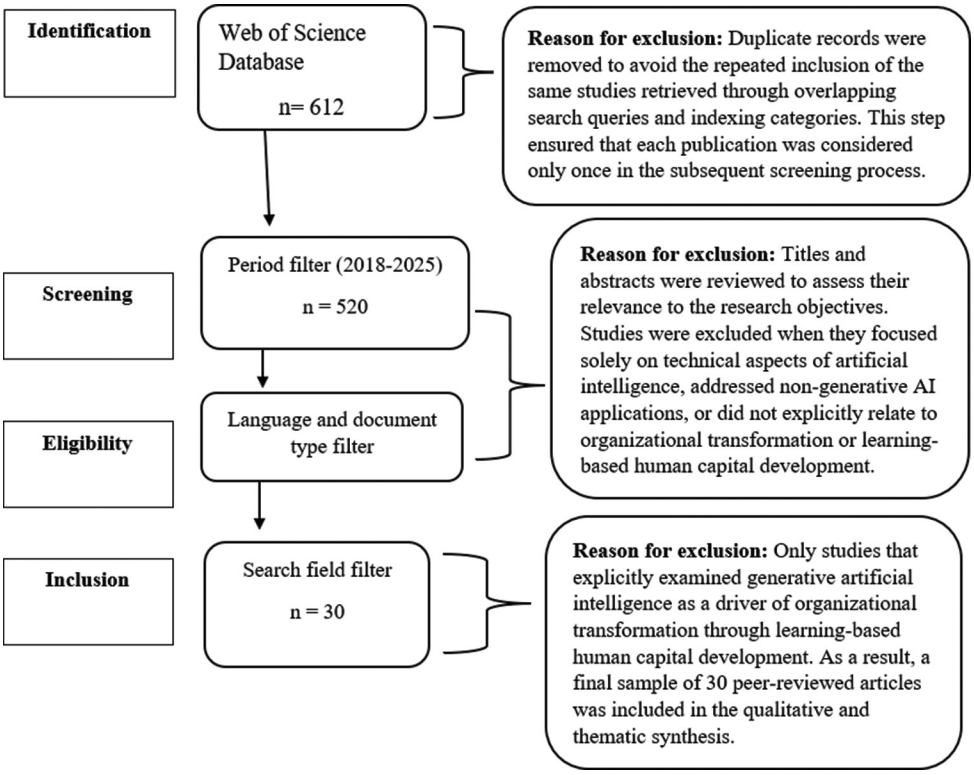
Following this multi-stage screening process, a final sample of 30 peer-reviewed articles was selected for in-depth analysis. This corpus was considered sufficient and appropriate given the emerging nature of generative artificial intelligence research and the focused scope of the review. The PRISMA-based screening process initially identified 612 records from the Web of Science database. After applying the publication period filter (2018-2025), 520 records remained. Additional screening based on language, document type, and thematic relevance resulted in a final corpus of 30 peer-reviewed articles included in the qualitative synthesis. Figure 1 presents the PRISMA flow diagram summarizing the identification, screening, eligibility, and inclusion phases of the study selection process.

The selection process for the studies was based on the PRISMA method (Moher et al., 2009) and was carried out in several successive stages. An initial search was conducted in the Web of Science database, identifying a large body of publications on generative artificial intelligence, organizational transformation, and learning-based human capital development. The review was then restricted to the period 2018-2025 to ensure the timeliness and scientific relevance of the work analyzed, and further refined using filters for language (English), document type (scientific articles and peer-reviewed journals), and research areas related to management, education, and social sciences.

After the progressive application of these criteria, the articles were subjected to a selection process based on their thematic relevance and direct alignment with the topic of generative artificial intelligence, learning, and organizational transformation, as well as with the research question: How does generative artificial intelligence contribute to organizational transformation through learning-based human capital development? An exploratory reading, followed by an in-depth analysis of the full texts, made it possible to retain only studies that incorporated empirical or conceptual reflections on learning, training, upskilling, or reskilling mechanisms mobilized in generative AI–driven organizational transformation processes. This process resulted in the constitution of a final corpus of 30 articles.

Data processing and analysis were conducted manually using synthesis tables based on the metadata and full texts exported from Web of Science. A thematic analysis was carried out to identify the main research streams, emerging trends, and recurring challenges related to the use of generative artificial intelligence in human capital development. This approach enabled the identification of structuring themes related to training practices, organizational transformation mechanisms, ethical issues, and performance implications, thereby providing an integrated and in-depth overview of the current state of the literature.

Figure 1: Research selection process



3. RESULTS HIGHLIGHTING ORGANIZATIONAL AND INDIVIDUAL VARIABLES IN GENERATIVE AI–DRIVEN ORGANIZATIONAL TRANSFORMATION AND LEARNING-BASED HUMAN CAPITAL DEVELOPMENT

Following the selection process based on the PRISMA method, a final corpus of 30 articles was selected for analysis. The results presented in this section are based exclusively on the identification and structuring of organizational and individual variables highlighted in the literature, using keywords, recurring concepts, and analytical approaches drawn from the selected studies. This approach makes it possible to identify the main mechanisms through which generative artificial intelligence contributes to organizational transformation through the development of learning-based human capital.

The thematic analysis highlights that the selected studies primarily address organizational transformation from the perspective of organizational mechanisms, such as training systems, generative AI adoption strategies, and governance practices, as well as from the perspective of individual dynamics, particularly in terms of skills development, continuous learning, and employee adaptability. These variables were inductively constructed based on the keywords and conceptual frameworks mobilized in the analyzed studies, without exceeding the scope of the final corpus.

This structuring of the results provides the foundation for the subsequent sections, which offer a detailed analysis of organizational variables and individual variables associated with generative AI–driven organizational transformation processes.

3.1. Organizational Variables Related to Generative Artificial Intelligence Adoption and Organizational Transformation

The following are the organizational variables identified during the systematic review of the literature (Table 1).

3.1.1. Generative AI adoption

This variable refers to an organization's ability to intentionally adopt and integrate generative artificial intelligence technologies into its processes, routines, and decision-making practices. Generative AI adoption goes beyond the mere implementation of technological tools; it requires strategic alignment, employee involvement, and the redesign of existing workflows to fully leverage the learning and productivity potential of AI systems.

Several studies emphasize that successful adoption of generative AI depends on organizational readiness, leadership support, and investment in learning and training mechanisms that enable employees to effectively interact with AI-based tools (Dwivedi et al., 2023; Vrontis et al., 2022). Rather than producing immediate performance gains, generative AI adoption often contributes to long-term organizational transformation by fostering experimentation, continuous learning, and new forms of knowledge creation within organizations (Raisch and Krakowski, 2021).

Table 1: Types of organizational variables identified

Organizational variables	Number of studies
Generative AI adoption	12
Organizational transformation	10
AI-enabled transformation	8

3.1.2. Organizational transformation

Organizational transformation involves deep changes in structures, processes, and cultures, and in a generative AI context, it extends beyond technology to encompass learning practices and human capital management.

The literature highlights that organizational transformation can enhance employee engagement, perceived fairness, and sense of belonging when it is accompanied by transparent communication, participatory approaches, and coherent learning strategies (Kotter, 1996; Armenakis and Bedeian, 1999). Conversely, transformation processes perceived as abrupt or poorly supported particularly those lacking training and learning opportunities tend to generate resistance, uncertainty, and limited long-term impact on organizational performance. Consequently, managers and HR professionals are encouraged to carefully assess the scale and implications of transformation initiatives in order to ensure socially acceptable and learning-oriented change processes (Burnes, 2017).

3.1.3. AI-enabled transformation

AI-enabled transformation refers to organizational change processes that are specifically facilitated or accelerated by the capabilities of artificial intelligence technologies, including generative AI systems. Unlike traditional digital transformation, AI-enabled transformation emphasizes the role of AI as an active agent in reshaping workflows, decision-making, and learning dynamics across the organization.

Studies suggest that AI-enabled transformation creates new opportunities for process automation, knowledge augmentation, and personalized learning, but also raises challenges related to governance, ethical use, and workforce adaptation (Brock and von Wangenheim, 2019; Jarrahi et al., 2023). The effectiveness of AI-enabled transformation therefore depends on the organization's capacity to align technological innovation with human capital development, ensuring that employees acquire the skills and learning capabilities required to work alongside intelligent systems rather than be displaced by them.

3.2. Individual Variables Related to Learning-based Human Capital Development in a Generative AI Context

3.2.1. Learning engagement

Learning engagement refers to employees' cognitive, emotional, and behavioral involvement in learning activities and plays a critical role in generative AI–driven transformation (Table 2). When learning initiatives are meaningful and aligned with organizational goals, they enhance employees' motivation to

Table 2: Type of individual variables identified

Individual variables	Number of studies
Learning engagement	9
Employee adaptability	8
Skills development	13

acquire new competencies and actively engage in transformation processes. The literature highlights that learning engagement plays a mediating role between technological change and organizational outcomes, as engaged learners are more likely to experiment with new tools, adapt to AI supported workflows, and contribute to knowledge creation (Schaufeli et al., 2002; Saks, 2006). In AI-intensive contexts, learning engagement is further reinforced when organizations provide supportive learning environments, continuous feedback, and opportunities for skill application, thereby fostering sustained involvement in learning-based human capital development (Ellström, 2011).

3.2.2. Employee adaptability

Employee adaptability refers to an individual's capacity to adjust behaviors, skills, and attitudes in response to changing work demands and environmental conditions. In the context of generative AI adoption, adaptability becomes essential as employees are required to continuously recalibrate their roles, interact with intelligent systems, and cope with evolving task requirements. Adaptable employees are more likely to embrace change, manage uncertainty, and maintain performance during periods of technological transformation.

Prior studies emphasize that adaptability is closely linked to learning opportunities, managerial support, and access to training during change initiatives (Pulakos et al., 2000; Griffin et al., 2007). Insufficient support and learning resources can hinder employee adaptability, thereby limiting the effectiveness of generative AI–driven transformation and its impact on individual and organizational performance.

3.2.3. Skills development

Skills development refers to the process through which employees acquire, update, and expand their competencies in response to evolving organizational and technological requirements. In the context of generative artificial intelligence, skills development increasingly focuses on digital skills, AI literacy, problem solving, and continuous learning capabilities. The reviewed studies indicate that generative AI not only alters the nature of required skills but also accelerates the pace at which competencies must be developed and renewed.

The literature underscores that effective skills development initiatives enhance employees' confidence, employability, and capacity to work alongside AI systems, thereby supporting sustainable organizational transformation. Moreover, learning-based approaches to skills development such as reskilling and upskilling programs are identified as central mechanisms for aligning human capital with AI driven organizational change, reinforcing the strategic role of learning in maintaining long term performance.

4. DISCUSSION AND MANAGERIAL IMPLICATIONS

This systematic review examined how generative artificial intelligence contributes to organizational transformation through learning-based human capital development. The findings highlight that the impact of generative AI is inherently multi-level, involving both organizational mechanisms and individual learning dynamics. At the organizational level, generative AI adoption supports transformation by reshaping work processes and enabling AI-driven transformation, provided it is embedded within coherent learning and change management strategies. At the individual level, learning engagement and employee adaptability emerge as key enablers that allow employees to effectively appropriate generative AI tools and adjust to evolving work demands. Overall, the review demonstrates that generative AI does not directly generate organizational performance; rather, its transformative potential is realized through learning-based human capital development, which acts as a central mechanism linking technological innovation to sustainable organizational transformation.

From a managerial perspective, these findings suggest that generative artificial intelligence should not be viewed solely as a technological investment, but rather as a strategic organizational capability that requires ongoing employee development. Managers are therefore encouraged to integrate learning policies, internal knowledge-sharing mechanisms, and adaptive training strategies into AI deployment processes to reduce resistance and strengthen organizational resilience.

5. CONCLUSION AND OUTLOOK

This systematic review shows that generative artificial intelligence supports organizational transformation primarily through learning-based human capital development. Its impact depends on organizations' ability to foster learning engagement and employee adaptability rather than on technology alone. These findings highlight the need to align generative AI adoption with continuous learning and skills development strategies. Future research should empirically examine these mechanisms across different organizational contexts and explore the long-term implications of generative AI for work and performance.

Future research should extend this analysis by comparing sector-specific experiences of generative AI integration and by empirically testing the mediating role of learning engagement in different organizational contexts.

REFERENCES

Armenakis, A.A., Bedeian, A.G. (1999), Organizational change: A review of theory and research in the 1990s. Journal of Management, 25(3), 293-315.

Becker, G.S. (1964), Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education. United States: University of Chicago Press.

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Brock, J.K.U., Von Wangenheim, F. (2019), Demystifying AI: What digital transformation leaders can teach you about realistic artificial intelligence. Journal of the Academy of Marketing Science, 47(4), 747-769.

Burnes, B. (2017), Managing change. Journal of Change Management, 17(2), 98-110.

Dwivedi, Y.K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., Duan, Y., Dwivedi, R., Edwards, J.S., Eirug, A., Galanos, V., Ilavarasan, P.V., Janssen, M., Jones, P., Kar, A.K., Kizgin, H., Kronemann, B., Lal, B., Lucini, B., Medaglia, R.,… & Williams, M.D. (2023), Generative artificial intelligence (AI): Opportunities, challenges and risks. International Journal of Information Management, 71, 102642.

Ellström, P.E. (2011), Informal learning at work: Conditions, processes and logics. Journal of Workplace Learning, 23(1), 6-19.

Griffin, M.A., Neal, A., Parker, S.K. (2007), A new model of work role performance: Positive behavior in uncertain and interdependent contexts. Academy of Management Journal, 50(2), 327-347.

Jarrahi, M.H., Sutherland, W., Nelson, S.B., Sawyer, S. (2023), Generative artificial intelligence and the nature of work. Journal of Business Research, 163, 113916.

Kotter, J.P. (1996), Leading Change. Mumbai: Harvard Business School Press.

Moher, D., Liberati, A., Tetzlaff, J., Altman, D.G., The PRISMA Group. (2009), Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. PLoS Medicine, 6(7), e1000097.

Pulakos, E.D., Arad, S., Donovan, M.A., Plamondon, K.E. (2000), Adaptability in the workplace: Development of a taxonomy of adaptive performance. Journal of Applied Psychology, 85(4), 612-624.

Raisch, S., Krakowski, S. (2021), Artificial intelligence and management: The automation-augmentation paradox. Academy of Management Review, 46(1), 192-210.

Saks, A.M. (2006), Antecedents and consequences of employee engagement. Journal of Managerial Psychology, 21(7), 600-619.

Schaufeli, W.B., Salanova, M., González-Romá, V., Bakker, A.B. (2002), The measurement of engagement and burnout: A two-sample confirmatory factor analytic approach. Journal of Happiness Studies, 3(1), 71-92.

Vrontis, D., Christofi, M., Pereira, V., Tarba, S., Makrides, A., Trichina, E. (2022), Artificial intelligence, robotics, advanced technologies and human resource management: A systematic review. International Journal of Human Resource Management, 33(6), 1237-1266.