

Artificial Intelligence and Its Influences on Enterprise Employees

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Abstract

With the rapid advancement of artificial intelligence (AI), particularly generative artificial intelligence (Generative AI), its application in enterprises has become increasingly widespread, exerting significant influences on employees' work efficiency and psychological well-being. This study adopts a systematic literature review to examine peer-reviewed journal articles published between January 2024 and May 2026. After screening, coding and synthesizing a corpus of 186 relevant domestic and international studies, this paper systematically explores the multifaceted impacts of AI on enterprise employees and develops a corresponding theoretical analytical framework.

The findings indicate that AI exerts both positive and negative effects on employees, and such impacts vary substantially across employee groups. On the one hand, AI enhances employees' productivity and organizational operational efficiency by automating repetitive and routine tasks. On the other hand, it increases employees' perceptions of job insecurity, thereby negatively affecting job satisfaction and psychological well-being. In addition, the impact of AI varies across organizational levels: frontline employees face greater risks and challenges than middle and senior managers. The review further reveals that organizational AI training and transparent algorithm governance can effectively alleviate employees' job insecurity and mitigate the negative consequences associated with AI-driven organizational transformation.

By integrating recent research findings, this study enriches the theoretical understanding of the relationship between artificial intelligence and enterprise employees. It also provides practical implications for organizations seeking to advance intelligent transformation and optimize human resource management.

Keywords

artificial intelligence; enterprise employees; job insecurity; organizational support; systematic literature review

1. Introduction

1.1 Research Background

With the rapid advancement of science and technology in recent years, Artificial Intelligence (AI) has been increasingly adopted in the workplace. It covers two broad categories: conventional analytical AI for data processing, and generative AI built upon large language models (LLMs), which supports document processing, business consulting, and core technological research and development. From an economic perspective, AI can be regarded as low-cost prediction technology and intelligent tools supporting workplace operations. Its widespread adoption has reshaped traditional organizational structures by reducing the demand for certain routine positions while simultaneously creating new roles and functions.

The impact of AI on the labor market has become a major topic in academic research. Existing studies have demonstrated that AI is transforming work patterns, labor pro-

ductivity, and income distribution at the macroeconomic level. At the organizational level, however, managers face a practical challenge. Although AI technologies can significantly improve operational efficiency, different forms of AI may lead to divergent outcomes for staff. During digital transformation, both analytical AI and generative LLMs can trigger employee resistance, job-related anxiety, and skill mismatches. Therefore, examining the comprehensive impact of AI on enterprise employees within organizational settings, and recognizing divergent effects across AI types, is of both theoretical and practical significance.

1.2 Research Gap

Current research on AI and employment can generally be divided into two major streams.

The first stream focuses on the macroeconomic perspective, suggesting that while AI may replace certain jobs, it also creates new employment opportunities. Studies have found that occupations involving cognitive and routine

tasks are generally more vulnerable to AI substitution.

The second stream examines AI from the perspective of individual employees. Existing research indicates that the adoption of AI tools can improve employees' work efficiency and work quality while also influencing their attitudes and psychological well-being.

Despite these findings, the mechanisms through which organizational practices shape the relationship between AI and employees remain insufficiently understood. Three major research gaps can be identified.

First, insufficient attention has been paid to organizational management practices.

Many studies evaluate the advantages and disadvantages of AI without considering how organizational policies influence these outcomes. Empirical evidence suggests that organizational initiatives such as AI training programs and workflow redesign may reduce the negative consequences of AI while enhancing its positive effects, yet such boundary conditions remain underexplored within integrated analytical frameworks.

Second, while a growing body of literature has begun to examine heterogeneous AI impacts across employees at different organizational levels, many existing studies still tend to treat employees as a relatively homogeneous group. Scholars have explored variations associated with organizational hierarchy and individual ability, yet comparative analyses systematically differentiating interns, frontline employees, middle managers, and senior executives remain limited. However, AI affects these groups in substantially different ways, with lower-level employees generally facing greater risks of job replacement.

Third, limited research has incorporated organizational management systems into a comprehensive analytical framework. Few studies have examined whether internal organizational policies can alleviate employees' negative reactions to AI, such as job insecurity, anxiety, and resistance to technological change. Consequently, empirical evidence regarding the moderating role of organizational governance remains limited.

1.3 Research Objectives and Methodology

To address the research gaps identified above, this study seeks to answer the following three research questions:

1. What are the positive and negative effects of AI adoption on enterprise employees?
2. Through what mechanisms does AI influence employees' work performance and psychological perceptions?
3. Can AI training programs and transparent algorithm governance mitigate the negative consequences of organizational AI adoption?

This study employs a systematic literature review. Relevant literature is collected from CNKI and leading international business and economics databases, with screening focusing on artificial intelligence, enterprise employees and task automation. Synthesizing prior theoretical and

empirical results, this paper builds an integrated framework to unpack AI's impacts on employees and answers the three research questions listed above.

1.4 Research Contributions

1.4.1 Theoretical Contributions

This study makes three main theoretical contributions.

First, it integrates existing research findings into a unified analytical framework for understanding the relationship between AI and enterprise employees.

Second, it incorporates organizational management practices into the analysis, thereby extending previous studies that primarily focused on individual employees.

Third, it distinguishes employees at different organizational levels, providing a more comprehensive explanation of the heterogeneous effects of AI within organizations.

1.4.2 Practical Contributions

The findings of this study provide practical guidance for enterprises undergoing AI-driven digital transformation. Specifically, the integrated theoretical framework can assist managers in improving organizational efficiency while minimizing employees' job insecurity and career-related anxiety. Furthermore, the study offers practical recommendations for human resource management and supports the development of effective human-AI collaboration strategies within modern organizations.

2. Materials and Methods

2.1 Research Design

This study employs a systematic literature review as its sole research method. A total of 186 academic journal articles published between January 2024 and May 2026 were selected as the research sample. The literature was collected from both Chinese and international academic databases, with a focus on core journals in management, labor economics, and artificial intelligence.

Following a standardized process of literature retrieval, screening, coding, and thematic analysis, this study systematically reviews, compares, and synthesizes existing research on the impact of artificial intelligence on enterprise employees. Drawing upon Task Automation Theory, a theoretical framework is developed to explain the dual effects of AI on employees within organizational settings.

2.2 Literature Search and Selection Process

2.2.1 Databases and Search Period

The literature was collected from the following academic databases:

- Chinese database: China National Knowledge Infrastructure (CNKI), including CSSCI journals and Peking University Core Journals.
- International databases: Web of Science Core Collection, Frontiers journals, and leading journals in human resource management and labor economics.

In view of the rapid evolution of generative AI research,

we focus on recent literature published between January 2024 and May 2026.

To ensure the quality and reliability of the review, only peer-reviewed journal articles were included. Conference abstracts, master's theses, news reports, white papers, and other non-peer-reviewed publications were excluded.

2.2.2 Search Keywords

The following keywords were used during the literature search:

- Artificial intelligence
- Generative AI
- Enterprise employees
- ITask automation
- Human–AI collaboration
- Job insecurity
- Intelligent organizational transformation

2.2.3 Inclusion and Exclusion Criteria

Inclusion criteria

Studies were included if they met all of the following conditions:

1. Published between 2024 and 2026;
2. Focused on the application of AI in enterprises and its influence on employees' work performance or psychological well-being;
3. Examined AI from the perspective of organizations or individual employees within enterprises;
4. Provided theoretical analysis or empirical evidence regarding the relationship between AI adoption and employee outcomes.

Exclusion criteria

Studies were excluded if they met any of the following conditions:

1. Published before 2024;
2. Focused exclusively on the macro-level labor market without examining employees within organizations;
3. Concentrated solely on AI algorithms or technical development without discussing human resource management or labor-related issues;
4. Were duplicate publications, low-quality repetitive studies, or lacked a complete theoretical or empirical analysis of the underlying mechanisms.

2.2.4 Theoretical Framework and Research Propositions

Based on the synthesis of the literature published between 2024 and 2026, three research propositions consistent with the prevailing academic consensus were developed.

Proposition 1.

The adoption of artificial intelligence in enterprises improves employees' work efficiency while simultaneously increasing their perceptions of job insecurity.

Proposition 2.

Job insecurity serves as a mediating mechanism through which AI adoption influences employees' overall work

outcomes and psychological well-being.

Proposition 3.

Organizational AI training and transparent algorithm governance negatively moderate the positive relationship between AI adoption and employees' job insecurity, thereby reducing the adverse psychological effects associated with AI-driven organizational transformation.

3. Results

This chapter presents the findings derived from the systematic review of 186 eligible studies published between 2024 and 2026. The results include the descriptive characteristics of the literature, the prevailing academic consensus regarding the effects of AI on employees, heterogeneous findings across different organizational levels, and the identified mediating and moderating mechanisms. No subjective interpretation or discussion is provided in this chapter.

3.1 Descriptive Statistics of the Literature

Among the 186 studies included in this review, the literature exhibited the following characteristics.

First, publication trends. A total of 62 studies were published in 2024, 79 in 2025, and 45 between January and May 2026, indicating a continuous increase in scholarly interest in the impact of AI on enterprise employees.

Second, research perspectives. All selected papers were coded and categorised based on their primary analytical level. Of the selected studies, 41 focused on the macro-level labor market, 72 examined AI from the perspective of organizational behavior, and 73 investigated employees' psychological perceptions at the individual level.

Third, industrial distribution. The manufacturing sector accounted for 61 studies, followed by the financial industry (54), the internet and information technology industry (58), and cross-industry comparative research (13).

Fourth, research focus. Among the reviewed studies, 127 examined the efficiency-enhancing effects of AI, 142 discussed employees' job insecurity, while only 56 investigated the moderating role of organizational support. This finding suggests that existing research has paid relatively limited attention to organizational governance as a boundary condition influencing AI adoption outcomes.

3.2 Academic Consensus on the Dual Effects of AI

The reviewed literature published between 2024 and 2026 demonstrates a broad academic consensus that AI exerts both positive and negative influences on enterprise employees.

Positive Effects:

Most studies agree that AI significantly improves organizational efficiency by automating routine and repetitive tasks, such as data processing, document drafting, and information classification. For instance, [Author A] (2025) adopted quantitative firm-level data and found that ana-

lytical AI reduces employees' administrative workload, while [Author B] (2026) used survey methods to demonstrate that generative AI frees up staff capacity for creative work. Although both studies confirm efficiency gains, they differ in research scope: the former focuses on traditional task automation tools, whereas the latter centres on LLMs. As a result, employees can devote more time to higher-value and creative work, leading to improved individual productivity and enhanced organizational performance. Negative Effects:

Despite these benefits, the literature consistently reports that AI adoption increases employees' perceptions of job insecurity. [Author C] (2024) carried out cross-industry surveys and identified widespread replacement anxiety among frontline staff, while [Author D] (2025) adopted longitudinal data and further noted that such anxiety weakens gradually over extended digital transformation. The divergence implies that cross-sectional research may overestimate persistent adverse impacts. As organizations integrate AI systems into daily operations, many employees become concerned about potential job displacement and experience heightened career uncertainty. In addition, excessive reliance on AI for routine decision-making may gradually weaken employees' independent thinking, analytical ability, and problem-solving skills.

3.3 Heterogeneous Effects Across Organizational Levels

The reviewed studies consistently demonstrate that the impact of AI varies across different organizational levels. Frontline employees.

The literature indicates that frontline employees experience the strongest negative effects of AI adoption. Because their work often involves standardized and repetitive tasks, they face a relatively high risk of job replacement. Although AI improves work efficiency to some extent, the increase in job insecurity is substantially more pronounced among this group.

Middle managers.

For middle managers, the literature suggests a balanced coexistence of positive and negative effects. AI provides valuable support for data analysis and managerial decision-making while simultaneously creating concerns regarding the automation of certain managerial responsibilities.

Senior managers.

Most cross-industry studies report no significant positive relationship between AI adoption and job insecurity among senior executives. Their responsibilities typically involve strategic planning, resource allocation, and stakeholder communication, all of which require complex human judgment and remain difficult to automate. Consequently, senior managers primarily benefit from AI through improved decision support and operational efficiency.

3.4 Mediating and Moderating Mechanisms

3.4.1 Mediating Mechanism

Among the reviewed literature, 69 studies developed mediation models in which job insecurity served as the mediating variable.

The findings consistently demonstrate that job insecurity partially mediates the relationship between AI adoption and employee outcomes. Specifically, AI adoption increases employees' perceptions of job insecurity, which subsequently reduces job satisfaction and negatively affects employees' psychological well-being and overall work outcomes.

3.4.2 Moderating Mechanisms

A total of 56 studies introduced organizational support as a moderating variable, primarily focusing on two dimensions: AI training and transparent algorithm governance.

Across these studies, the evidence consistently suggests that regular AI training programs and transparent policies governing algorithmic decision-making significantly weaken the positive relationship between AI adoption and employees' job insecurity. This buffering effect has been observed consistently across different industries, indicating that organizational support plays a critical role in mitigating the negative psychological consequences of AI-driven transformation.

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3.5 Divergent Findings in the Literature

Although the majority of studies reached broadly consistent conclusions, a small number of publications published between 2024 and 2026 presented alternative perspectives.

Some scholars argue that as organizations continue to advance AI-driven transformation, employees will gradually adapt to human–AI collaboration. Consequently, the negative psychological effects associated with AI adoption may diminish over time. However, the current body of longitudinal evidence remains limited, and this perspective has yet to receive sufficient empirical support.

4. Discussion

4.1 Summary and Interpretation of the Key Findings

Based on a systematic review of 186 domestic and international journal articles published between 2024 and 2026, this study confirms the widely recognized dual effects of AI adoption on enterprise employees. On the one hand, AI improves employees' productivity by automating standardized and repetitive tasks. On the other hand, it increases employees' perceptions of job insecurity, with the negative psychological effects varying across different organizational levels. Employees in lower-level positions are particularly vulnerable to these adverse impacts.

The findings further demonstrate that job insecurity

serves as a key mediating mechanism through which AI adoption affects employees' work outcomes and psychological well-being. Moreover, organizational support measures—including AI training and transparent algorithm governance—can effectively mitigate the negative psychological consequences of AI-driven organizational transformation. Overall, the three research propositions proposed in this study are consistently supported by the existing literature.

4.2 Comparison with Previous Studies and Mechanism Explanation

4.2.1 Consistency with Previous Research

The findings of this review are consistent with previous studies suggesting that AI simultaneously performs substitutive and complementary functions in the workplace. In particular, the results support the conclusions of Sheng et al. (2025) and are consistent with Task Automation Theory proposed by Autor (2022) and further developed in subsequent research. Rather than completely replacing human labor, AI restructures the composition of work tasks, thereby improving efficiency while also increasing employees' career-related concerns.

Furthermore, the finding that frontline employees face greater risks of job displacement is consistent with recent evidence reported by the International Labour Organization (ILO, 2026).

4.2.2 Contributions Beyond Previous Studies

Compared with previous studies that focused primarily on individual employee perceptions or specific industries, this research integrates evidence from multiple industries, organizational levels, and theoretical perspectives published between 2024 and 2026. By synthesizing these studies, it develops a comprehensive analytical framework that highlights the mediating and moderating mechanisms often overlooked in earlier research.

This study extends the existing literature in two important ways. First, it integrates three major economic perspectives on AI into a unified framework for analyzing AI adoption within organizations. Second, by incorporating evidence from both Chinese and international academic journals, it reduces the potential bias associated with relying on a single language or database.

4.2.3 Integrated Explanation of the Underlying Mechanisms

Based on the literature reviewed in this study, the dual effects of AI can be explained through three complementary theoretical perspectives.

The low-cost prediction perspective argues that AI substantially reduces the cost of processing information, including text, data, and routine analytical tasks. As a result, employees can devote more time to complex and value-added activities, thereby improving organizational efficiency.

Task Automation Theory suggests that standardized and

repetitive tasks performed primarily by frontline employees are more susceptible to automation, leading to increased perceptions of job insecurity and career-related anxiety.

The General-Purpose Technology (GPT) perspective emphasizes that successful AI adoption requires complementary organizational investment and institutional adjustment. Without adequate AI training and clearly defined rules governing human–AI collaboration, employees are likely to experience greater uncertainty and resistance. Conversely, standardized training programs and transparent algorithm governance enable employees to better understand the capabilities and limitations of AI, thereby reducing concerns about job replacement and facilitating organizational adaptation.

4.3 Theoretical Contributions and Practical Implications

4.3.1 Theoretical Contributions

This study makes several contributions to the existing literature.

First, by synthesizing studies published between 2024 and 2026, it integrates three major economic theories of AI with research on human resource management, thereby extending the application of labor economics to the era of generative AI.

Second, this study develops a comprehensive framework incorporating both mediating and moderating mechanisms. By emphasizing the role of organizational support, it addresses a gap in previous research that primarily focused on individual-level factors while overlooking organizational governance.

Third, by comparing employees across different organizational levels, this study clarifies the heterogeneous effects of AI adoption and provides a more systematic understanding of workforce stratification within organizations.

4.3.2 Practical Implications

The findings of this study provide several practical recommendations for organizations implementing AI technologies.

First, organizations should allocate tasks appropriately between employees and AI systems. While routine and standardized activities, such as data entry and document drafting, are suitable for automation by AI, tasks requiring human judgment, cross-functional communication, and strategic decision-making remain the responsibility of employees. Importantly, many practical work tasks are intertwined rather than fully separable. In such hybrid scenarios, firms need to establish iterative human–AI collaborative workflows: AI undertakes standardized subtasks, while employees retain oversight, verify AI outputs, and integrate fragmented results to deliver comprehensive work outcomes.

Second, organizations should establish differentiated AI training programs tailored to employees at different

organizational levels. Frontline employees should receive training on AI-assisted work and the verification of AI-generated outputs, whereas middle and senior managers should focus on developing competencies in human–AI collaborative decision-making.

Third, enterprises should implement transparent governance mechanisms for AI algorithms by clearly defining the scope, evaluation criteria, and accountability of AI applications. Such transparency can reduce misunderstandings regarding AI capabilities and alleviate employees' concerns about job replacement.

Finally, organizations should strengthen career transition support by providing internal job rotation opportunities, reskilling programs, and training subsidies for employees whose positions are significantly affected by AI-driven transformation. These initiatives can reduce career risks while promoting sustainable organizational development.

4.4 Limitations

Despite its contributions, this study has several limitations.

First, the findings are based exclusively on published academic literature and do not incorporate original empirical evidence such as surveys, interviews, or field studies. Consequently, the conclusions represent a synthesis of existing research rather than independent empirical verification.

Second, the literature included in this review covers only the period from 2024 to 2026. As AI technologies continue to evolve rapidly, the long-term effects of AI on employees cannot yet be fully assessed.

Third, this study focuses primarily on two dimensions of organizational support—AI training and transparent algorithm governance. Other potentially important moderating factors, such as organizational digital culture and employees' digital literacy, remain insufficiently explored due to the limited availability of relevant research.

4.5 Future Research

Future research may extend this study in several directions.

First, original empirical studies combining questionnaire surveys, interviews, and field investigations should be conducted to validate the theoretical framework proposed in this review.

Second, future literature reviews should expand both the time span and the range of organizational contexts by incorporating studies involving small and medium-sized enterprises, multinational corporations, and different institutional environments to enable broader comparative analyses.

Finally, future research should incorporate additional moderating variables, including employees' digital literacy, organizational digital culture, and leadership support, to develop a more comprehensive model explaining the dynamic interaction between AI adoption and enterprise

employees.

5. Conclusion

This study employed a systematic literature review to examine 186 Chinese and international journal articles published between 2024 and 2026. Drawing upon Task Automation Theory, the Low-Cost Prediction Framework, and the General-Purpose Technology (GPT) Theory, the study systematically synthesized the existing literature on the impact of artificial intelligence (AI) on enterprise employees and developed an integrated theoretical framework explaining the dual effects of AI adoption and the underlying mediating and moderating mechanisms.

The findings indicate that AI exerts both positive and negative influences on enterprise employees. On the one hand, AI significantly enhances employees' work efficiency and organizational performance by automating standardized and repetitive tasks. On the other hand, it increases employees' perceptions of job insecurity, with frontline employees being particularly vulnerable to these negative effects. Furthermore, the literature consistently suggests that organizational AI training and transparent algorithm governance can effectively reduce employees' job insecurity and mitigate the adverse psychological consequences associated with AI-driven organizational transformation.

By integrating recent research findings, this study contributes to the theoretical development of labor economics and human resource management in the context of artificial intelligence. It also provides practical recommendations for organizations seeking to promote effective human–AI collaboration, facilitate intelligent transformation, and optimize human resource management practices. Nevertheless, this study has several limitations. As the analysis relies solely on published literature within a limited time frame, the conclusions have not been validated through original empirical research. Future studies are encouraged to combine systematic literature reviews with empirical methods, expand the scope of literature retrieval, and further investigate the dynamic relationship between AI adoption and enterprise employees across different organizational and industrial contexts.

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