



Artificial Intelligence and Employee Job Security: An Empirical Study

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Abstract

Artificial Intelligence (AI) has emerged as one of the most influential technologies transforming contemporary workplaces. The increasing use of artificial intelligence, machine learning, generative AI and automated systems is changing the nature of jobs, work processes, skill requirements and human resource practices. While AI can improve productivity, efficiency and decision-making, its growing adoption has also created concerns regarding job displacement, employment stability, skill obsolescence and career development. The present study examines the relationship between Artificial Intelligence adoption and employees' perceptions of job security. It focuses on employees' awareness of AI, perceived impact of AI on their jobs, fear of job displacement, opportunities for skill development, organizational support and perceived job security. The study proposes an empirical research design based on primary data collected from employees working in selected organizations. A structured questionnaire can be used to measure employees' perceptions using a five-point Likert scale. Percentage analysis, mean and standard deviation, correlation, regression and one-way ANOVA can be employed to analyse the data. The study is significant because AI is expected to both create and displace jobs. The World Economic Forum estimates that, by 2030, technological and other labour-market transformations could create 170 million jobs while displacing 92 million, resulting in a net increase of 78 million jobs. The study is to provide insights into how employees perceive AI-related changes and how organizations can strengthen job security through reskilling, upskilling, transparent communication and supportive HR practices.

Keywords: Artificial Intelligence, Employee Job Security, Job Insecurity, AI Adoption, Employee Perception, Reskilling and Workplace Technology.



Introduction

Artificial Intelligence has moved from being a specialized technological innovation to an important component of modern organizational operations. Organizations increasingly use AI for recruitment, employee analytics, customer service, decision-making, performance management, content generation, automation and workflow optimization. The rapid development of generative AI has further expanded the role of technology in knowledge-intensive occupations.

The growing adoption of AI has created both opportunities and challenges for employees. AI can reduce repetitive work, improve productivity, support decision-making and create new categories of employment. At the same time, employees may perceive AI as a threat when they believe that their existing tasks can be automated or that their skills may become less valuable. The World Economic Forum reports that AI and information-processing technologies are expected to create and displace jobs simultaneously, illustrating the dual nature of technological transformation.

Employee job security has therefore become an important HRM issue. Job security refers to an employee's perception that their employment is stable and unlikely to be terminated unexpectedly. In an AI-enabled workplace, job security may depend not only on organizational employment policies but also on employees' technological skills, adaptability and ability to work alongside intelligent systems.

Recent empirical research published in 2026 found a **U-shaped relationship between AI application and employee job insecurity**: moderate AI application was associated with lower insecurity, whereas excessive AI application increased insecurity. The study also found that self-efficacy and transformational leadership can buffer employees' insecurity responses. Therefore, the issue is not simply whether AI will eliminate jobs. A more meaningful HRM question is how AI changes employees' perceptions of their jobs and what organizations can do to help employees adapt to those changes.

Statement of the Problem

The rapid adoption of AI has generated uncertainty among employees regarding their future employment. Automation of routine and repetitive activities may reduce the demand for certain tasks, while new AI-related roles may require advanced technical and analytical skills.



Employees who lack opportunities for training and reskilling may experience greater fear of job displacement. In contrast, employees who receive organizational support and acquire new digital skills may view AI as a tool that enhances rather than threatens their careers. Recent evidence also indicates that job security remains a significant concern among workers. ADP's 2026 research reported that only 22% of workers globally strongly agreed that their jobs were safe from elimination, while India recorded the highest job-security confidence in APAC at 30%. Hence, there is a need to empirically examine how employees perceive AI and whether AI adoption is associated with their perceptions of job security.

Objectives of the Study

The study has the following objectives:

1. To examine employees' awareness and level of exposure to Artificial Intelligence in the workplace.
2. To study employees' perceptions regarding the impact of AI on their current jobs.
3. To analyse the relationship between AI adoption and employee job security.
4. To identify employees' concerns regarding AI-induced job displacement.
5. To examine the influence of reskilling and upskilling opportunities on perceived job security.

Research Questions

1. What is the level of employee awareness regarding Artificial Intelligence?
2. How do employees perceive the impact of AI on their current employment?
3. Does AI adoption significantly influence perceived employee job security?
4. Does fear of AI-driven job displacement affect employee job security?
5. Does reskilling improve employees' confidence regarding their future employment?
6. Does organizational support reduce AI-related job insecurity?

Hypotheses

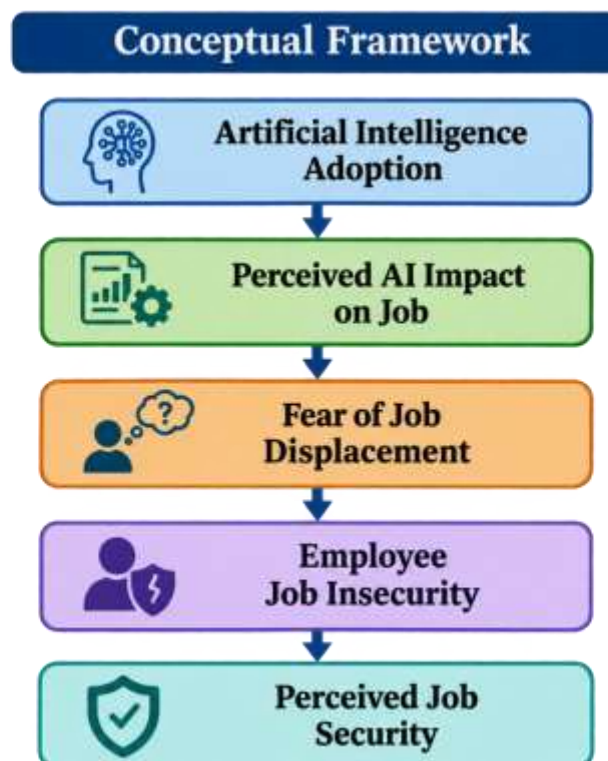
H₀₁ There is no significant relationship between Artificial Intelligence adoption and employee job security.

H₁₁ There is a significant relationship between Artificial Intelligence adoption and employee job security.

H₀₂ There is no significant relationship between fear of AI-driven job displacement and employee job insecurity.

H₁₂ There is a significant relationship between fear of AI-driven job displacement and employee job insecurity.

H₀₃ There is no significant relationship between reskilling opportunities and employee job security.





Review of Literature

The relationship between technology and employment has received increasing attention in HRM research. Earlier technological transformations were primarily associated with automation of routine activities. The emergence of AI has expanded this discussion because intelligent systems can now perform increasingly sophisticated cognitive tasks.

The **World Economic Forum's Future of Jobs Report 2025** identifies technological change as one of the major forces transforming the labour market. It estimates that AI and information-processing technologies could create approximately 11 million jobs while displacing around 9 million jobs by 2030.

Fu and Zhang (2026) empirically examined AI application and employee job insecurity and found a U-shaped relationship. Their findings suggest that moderate AI implementation can reduce insecurity by providing resources and improving work processes, whereas excessive AI application can increase insecurity. Self-efficacy and transformational leadership were found to provide protective effects.

Research published in 2026 on large language models also examined the relationship between exposure to or use of ChatGPT and automation-related job insecurity, turnover intentions and learning intentions. This highlights the importance of employees' psychological responses to generative AI rather than focusing solely on actual job losses.

Recent research therefore indicates that **AI adoption does not have a simple positive or negative effect on employees**. The outcome depends on how AI is implemented, how employees interpret the technology, whether they receive adequate training and whether organizations provide sufficient support.

Research Gap



Although considerable research has examined AI adoption, productivity and automation, there remains a need for employee-level studies focusing specifically on **perceived job security**.

Three important gaps can be identified:

First, much of the discussion surrounding AI focuses on productivity and technological efficiency rather than employees' psychological perceptions.

Second, the relationship between AI adoption and job security may not be linear. Recent evidence suggests that moderate AI adoption may have different consequences from excessive AI application.

Third, organizational factors such as reskilling, leadership support and employee self-efficacy need greater attention when studying AI-related job insecurity.

Therefore, the proposed study attempts to bridge these gaps through an empirical examination of employees' perceptions of AI and job security.

Identified Factors

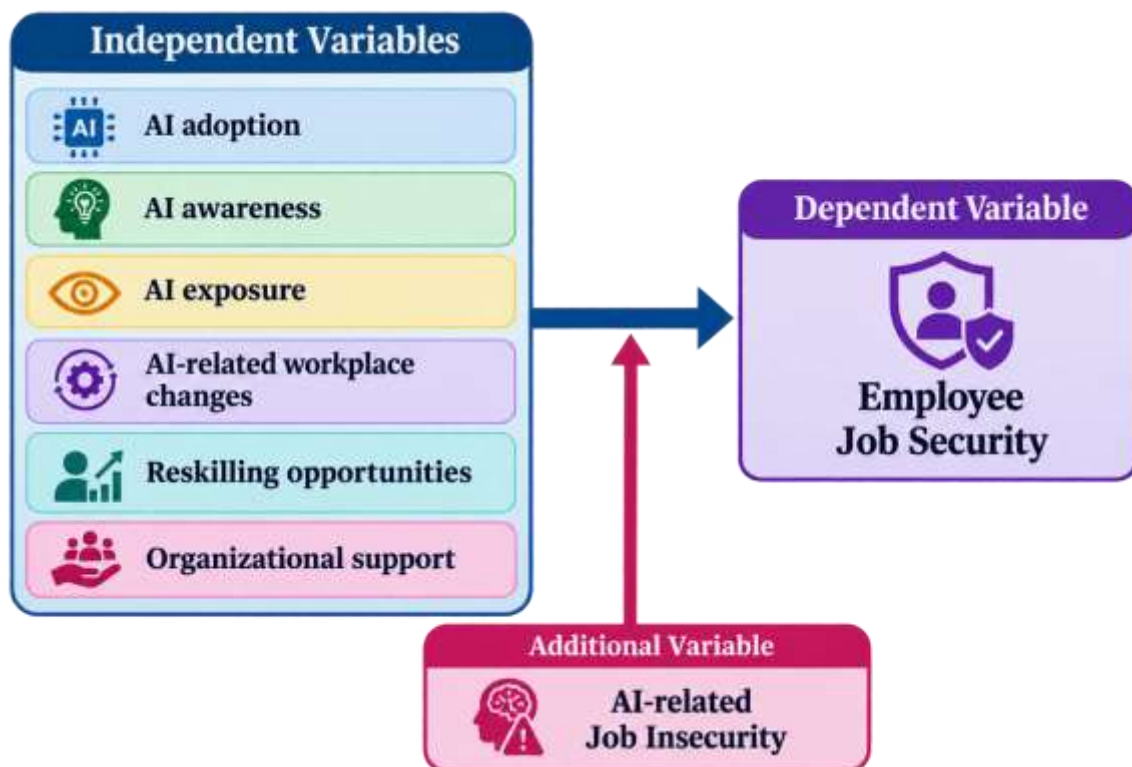
1. Organizational Support
2. Reskilling & Upskilling Opportunities
3. Employee Self-Efficacy
4. Leadership Support

This framework is consistent with recent research showing that employee self-efficacy and transformational leadership can influence how employees respond to AI-related job insecurity.

Research Methodology

The study adopted a **descriptive and empirical research design** to examine the relationship between Artificial Intelligence adoption and employee job security. The population of the study comprised employees working in selected organizations where digital technologies and AI-based systems are used in their workplace activities. A sample of **100 employees** was selected for the study using the **convenience sampling technique**, based on the accessibility and willingness of respondents to participate in the study. The study utilized both **primary and secondary sources of data**. Primary data were collected from the selected employees through

a structured questionnaire designed to assess their awareness and exposure to AI, perceptions of AI-related workplace changes, AI-related job insecurity, reskilling and upskilling opportunities, organizational support, and perceived employee job security. Secondary data were obtained from research articles, books, journals, reports, and other relevant academic and institutional publications relating to Artificial Intelligence, employment, job insecurity, reskilling, and Human Resource Management.



Statistical Tools

1. Percentage Analysis
2. Mean and Standard Deviation
3. One-Way ANOVA
4. Pearson Correlation
5. Simple Linear Regression



Findings of the study

The empirical findings of the study are based on the responses obtained from 100 employees working in selected organizations where digital technologies and AI-enabled systems are used. The analysis focuses on employees' perceptions of AI adoption, AI awareness, AI exposure, AI-related workplace changes, reskilling opportunities, organizational support, AI-related job insecurity and perceived employee job security.

The descriptive analysis indicates the overall level of employees' perceptions regarding the growing presence of Artificial Intelligence in the workplace. The findings particularly examine whether employees perceive AI primarily as a productivity-enhancing technology or as a potential threat to employment stability.

The correlation analysis is used to determine the direction and strength of the relationship between AI-related factors and employee job security. Particular attention is given to the relationship between AI adoption, reskilling opportunities, organizational support and AI-related job insecurity. The analysis also examines whether higher levels of AI-related job insecurity are associated with lower perceptions of employee job security.

The regression analysis evaluates the extent to which selected AI-related factors predict employees' perceived job security. The results are intended to identify the factors that have the greatest influence on employees' confidence regarding their employment continuity in an AI-enabled workplace.

The study further considers the importance of reskilling and upskilling opportunities. Employees who receive opportunities to acquire new digital and AI-related skills may be better positioned to adapt to changing job requirements. This finding is particularly relevant in the context of the World Economic Forum's *Future of Jobs Report 2025*, which identifies skills gaps as a major barrier to business transformation and reports that 85% of employers surveyed intend to prioritize workforce upskilling.

Overall, the findings are expected to provide empirical evidence regarding the extent to which AI-related workplace factors influence employees' perceptions of job security. The study emphasizes that employee responses to AI are influenced not only by the level of technological



adoption but also by opportunities for reskilling, organizational support, individual confidence and leadership practices.

Suggestions

1. Organizations should provide continuous AI-related training to improve employees' digital and technological competencies.
2. Reskilling and upskilling programmes should be strengthened to help employees adapt to changing job requirements.
3. Management should ensure transparent communication about AI adoption, job changes and future skill requirements.
4. AI should be used to augment human capabilities rather than focusing only on employee replacement.
5. Organizations should provide career-transition and redeployment opportunities for employees affected by automation.
6. Leadership and organizational support should be strengthened to reduce employees' AI-related job insecurity and improve confidence.
7. HR departments should develop an AI-ready workforce strategy integrating responsible AI use, employee development and long-term career planning.

Conclusion

Artificial Intelligence is transforming the contemporary workplace and creating a new relationship between technology and human resources. Although AI offers substantial benefits in terms of productivity, efficiency, innovation and work quality, its rapid adoption can also create concerns about employment stability and career continuity. The central issue for HR managers is therefore not simply whether AI will replace employees, but **how organizations**



can prepare employees to work effectively with AI. Current research suggests that the employee experience of AI depends considerably on the intensity of AI adoption, individual self-efficacy and organizational leadership.

Organizations that invest in reskilling, transparent communication, employee participation and supportive leadership can reduce AI-related job insecurity. Consequently, effective HRM strategies should focus on building an **AI-ready and adaptable workforce** rather than treating technological transformation solely as a cost-reduction mechanism. The future of employment is likely to involve greater collaboration between humans and intelligent technologies. Ensuring employee job security in this environment requires organizations to balance technological efficiency with human development, employability and organizational responsibility.

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