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THE EFFECT OF GENERATIVE AI USE AND AI SELF-EFFICACY ON JOB INSECURITY AMONG GENERATION Z EMPLOYEES IN INDONESIA

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Abstract

The development of generative artificial intelligence (GenAI) has changed how employees perform tasks, access information, and complete work-related activities. Although GenAI can improve productivity and efficiency, its growing use may also raise concerns regarding employment stability, particularly among younger employees entering a technology-driven labor market. This study aims to examine the effect of work-related GenAI use and AI self-efficacy on job insecurity among Generation Z employees in Indonesia. A quantitative approach using an explanatory cross-sectional survey design is proposed. The target respondents are employees aged 18–29 who are currently working in Indonesia and have used GenAI for work-related purposes within the previous three months. Data will be collected through an online questionnaire using purposive sampling, supported by snowball sampling when necessary. The proposed research model includes work-related GenAI use and AI self-efficacy as independent variables and job insecurity as the dependent variable. Multiple linear regression will be used to examine the partial relationships between the independent variables and job insecurity, as well as their simultaneous explanatory contribution. This study is expected to contribute to human resource management research by distinguishing employees' use of GenAI from their confidence in using the technology. The findings may also provide practical insights for organizations in developing employee training, communication, and workforce adaptation strategies during digital transformation.

Keywords: Generative Artificial Intelligence, AI Self-Efficacy, Job Insecurity, Generation Z, Human Resource Management

INTRODUCTION

The development of digital technology has influenced how organizations manage work, allocate responsibilities, and improve operational efficiency. One technology receiving increasing attention is generative artificial intelligence (GenAI), which can generate text, summarize information, support idea development, and assist users in completing various knowledge-based tasks. In the workplace, these capabilities may help employees perform certain activities more efficiently. However, the introduction of technologies that can perform or support work tasks may also raise questions about the future of particular jobs and the skills required to remain employable.

From a human resource management perspective, technological transformation is not merely a matter of adopting new tools. It also concerns how employees understand organizational change, respond to new work requirements, and perceive the continuity of their employment. Employees may welcome GenAI because it helps them complete tasks, while

simultaneously worrying that the same technology could reduce the need for certain human activities. Therefore, the consequences of GenAI adoption should be examined not only in terms of productivity but also in terms of employees' psychological responses.

Research conducted in Indonesia has begun to examine employees' perceptions of GenAI and the potential relationship between AI adoption and job insecurity. Hariyani and Prasetio (2026) examined employees' perceptions of GenAI in the financial services sector, including its potential to improve productivity and concerns about job insecurity. Asmini (2025) also discussed the positive and negative psychological pathways associated with AI adoption among Indonesian employees. These studies provide a relevant starting point for examining how employees respond to technological change.

Generation Z is an important group for this discussion because its members are entering or developing their careers in a labor market shaped by digital transformation. Nevertheless, employees in this generation should not automatically be assumed to have the same level of technological confidence or the same perceptions of employment security. They may differ in their frequency of GenAI use, the range of work tasks for which they use it, and their confidence in operating AI tools effectively.

This study focuses on two factors that may be associated with job insecurity. The first is work-related GenAI use, which refers to the extent to which employees use generative AI tools for tasks connected to their jobs. Greater use may increase employees' awareness of the technology's capabilities and its potential to change work processes. Depending on how employees interpret these changes, GenAI use may be associated with higher or lower job insecurity.

The second factor is AI self-efficacy, defined as employees' confidence in their ability to learn and use AI tools for work-related purposes. Employees with stronger AI self-efficacy may feel better prepared to adapt to technological changes. Such confidence may be associated with lower job insecurity because employees perceive themselves as more capable of learning and applying new tools. However, this relationship needs to be examined empirically rather than assumed.

Although research on AI and employment concerns is developing, additional evidence is needed to understand how actual work-related GenAI use and confidence in using AI relate to job insecurity among Generation Z employees in Indonesia. These factors represent different dimensions: one concerns employees' engagement with technology, while the other concerns their perceived capability to use it.

The novelty of this study lies in examining work-related GenAI use and AI self-efficacy simultaneously as separate predictors of job insecurity among Generation Z employees in Indonesia. Rather than treating technology use and confidence in using AI as the same construct, the study investigates whether they have distinct relationships with employees' perceptions of employment stability.

This study aims to examine the partial and simultaneous relationships of work-related GenAI use and AI self-efficacy with job insecurity. The research questions are as follows:

1. Does work-related GenAI use have a significant relationship with job insecurity among Generation Z employees in Indonesia?

2. Does AI self-efficacy have a significant relationship with job insecurity among Generation Z employees in Indonesia?
3. Do work-related GenAI use and AI self-efficacy simultaneously explain variation in job insecurity?

Theoretically, this study is expected to contribute to human resource management research by providing evidence on the relationship between employees' use of GenAI, their confidence in using AI, and their perceived employment stability. Practically, the findings may help organizations develop employee training, transparent communication, and workforce adaptation strategies when introducing GenAI. Recommendations will be formulated based on the actual findings after data collection and analysis.

LITERATURE REVIEW

Generative artificial intelligence refers to AI technology capable of producing new content, such as text, summaries, ideas, and other outputs in response to user instructions. In a work context, employees may use GenAI to prepare written materials, summarize documents, generate ideas, assist with research, organize information, and support other job-related activities.

For this study, work-related GenAI use is defined as the extent to which an employee uses GenAI to complete or support work tasks. The variable focuses on employees' reported use rather than their general attitudes toward AI or their perceptions of whether AI threatens their employment.

Work-related GenAI use can be operationalized through two dimensions: frequency of use and breadth of use. Frequency refers to how often an employee uses GenAI for work, while breadth refers to the range of work-related activities in which GenAI is used. These dimensions provide an indication of the extent to which GenAI has become part of an employee's work routine.

The relationship between GenAI use and job insecurity may be complex. Employees who frequently use GenAI may become more aware of its capabilities and its potential to automate or transform certain tasks. This awareness may increase concerns about job continuity. Conversely, employees may regard GenAI as a supportive tool that improves their performance rather than as a direct substitute for their roles. Therefore, the direction and strength of this relationship must be established through empirical testing.

Self-efficacy refers to an individual's belief in their capability to perform activities required to achieve particular outcomes. In this study, AI self-efficacy refers specifically to employees' confidence in learning, understanding, and using AI tools for work-related purposes.

AI self-efficacy is conceptually different from the frequency of GenAI use. An employee may use GenAI frequently but still lack confidence in evaluating its outputs or applying it to unfamiliar tasks. Conversely, an employee may feel confident about using AI despite using it only occasionally. Measuring these constructs separately can provide a more complete understanding of employees' responses to technological change.

Employees with higher AI self-efficacy may perceive themselves as better prepared to learn new digital skills and adapt to changing work requirements. Such confidence may help

them approach technological change as a manageable challenge rather than as an uncontrollable threat. Asmini (2025) examined psychological factors associated with AI adoption among Indonesian employees, providing a relevant local context for considering employees' confidence and responses to AI-related changes.

In this study, AI self-efficacy is treated as an independent variable. It is intended to measure employees' perceived confidence in learning AI tools, using them for work tasks, and adapting their use to different work requirements.

Job insecurity refers to an employee's perceived concern that the continuity or stability of their employment may be threatened. It is a subjective perception and does not necessarily mean that the employee has received an official notice of redundancy or that job loss will actually occur.

In a technology-driven work environment, employees may experience job insecurity when they believe that automation or AI could reduce the demand for their current tasks, change the requirements of their positions, or weaken their prospects of maintaining employment. However, the existence of AI tools does not automatically mean that employees will lose their jobs. Job insecurity may also depend on how employees interpret technological change and their position within the organization. For this study, job insecurity is defined as employees' perceived uncertainty about the continuity of their current employment, including concerns that technological change may threaten their jobs. Measurement should distinguish concerns about employment continuity from general job dissatisfaction to ensure that the dependent variable reflects the intended construct.

Hariyani and Prasetio (2026) examined concerns about job insecurity in their study of employees' perceptions of GenAI in Indonesia's financial services sector. Aulia et al. (2026) also examined perceived AI threat and job insecurity among Generation Z employees. These studies provide a relevant context for investigating the relationship between AI-related experiences and employment insecurity.

Work-related GenAI use may be associated with job insecurity because using the technology can expose employees to its ability to perform tasks that were previously completed entirely by humans. As employees become more familiar with GenAI capabilities, they may reassess the future relevance of their skills and the stability of their positions.

Nevertheless, greater use does not necessarily produce greater insecurity. Employees may use GenAI as a complement to their skills, allowing them to focus on activities that require judgment, coordination, or contextual understanding. The relationship may therefore depend on job characteristics, organizational communication, and how GenAI is introduced.

This study proposes a positive relationship between work-related GenAI use and job insecurity. The hypothesis reflects the possibility that greater exposure to GenAI capabilities is associated with stronger concerns about job continuity.

H1: Work-related GenAI use is positively associated with job insecurity among Generation Z employees in Indonesia.

AI self-efficacy may influence how employees interpret and respond to technological change. Employees who believe they can learn and use AI tools may feel more capable of adapting to new work requirements. This confidence may reduce their perception that technological change places their employment at risk.

In contrast, employees who have low confidence in using AI may feel less prepared for changes in job tasks and digital skill requirements. They may perceive technological change as more threatening because they doubt their ability to adapt. This reasoning suggests that AI self-efficacy may be negatively associated with job insecurity.

However, confidence in using AI does not guarantee employment stability. Job insecurity may also be influenced by organizational decisions, the nature of an employee's occupation, and broader labor-market conditions. Therefore, the proposed relationship should be interpreted as a testable association rather than a guarantee of employment security.

H2: AI self-efficacy is negatively associated with job insecurity among Generation Z employees in Indonesia.

Work-related GenAI use and AI self-efficacy represent two distinct factors. The first reflects employees' extent of engagement with GenAI at work, while the second reflects their confidence in using the technology. Examining both variables in the same regression model makes it possible to assess their individual relationships with job insecurity while statistically accounting for the other variable. This approach may help clarify whether job insecurity is associated with employees' exposure to GenAI use, their confidence in using AI, or both. The simultaneous test will examine whether the two independent variables jointly contribute to explaining variation in job insecurity.

H3: Work-related GenAI use and AI self-efficacy jointly explain a statistically significant proportion of variation in job insecurity among Generation Z employees in Indonesia.

RESEARCH METHOD

This study uses a proposed quantitative approach with an explanatory cross-sectional survey design. A quantitative approach is appropriate because the study aims to measure relationships among variables using numerical data and statistical analysis. The research procedures will follow the general principles of quantitative research described by Sugiyono (2019). The survey will collect responses at a single period. Therefore, the results will indicate statistical relationships within the observed sample and should not be interpreted as definitive evidence of causation.

The target population consists of Generation Z employees who are currently working in Indonesia. For operational purposes, Generation Z in this study is defined as individuals aged 18–29 at the time of data collection.

Respondents must meet the following criteria: (1) be aged 18–29; (2) be currently employed in Indonesia; (3) have used a generative AI tool for at least one work-related activity during the previous three months; and (4) be willing to participate voluntarily in the survey. Individuals who are not currently employed or who have never used GenAI for work-related purposes during the specified period will not be included in the analytical sample.

The study targets approximately 150–200 valid respondents. This is a planned target rather than a confirmed sample size. The final number of respondents will be reported after data collection and screening.

Purposive sampling will be used to recruit respondents who meet the inclusion criteria. Snowball sampling may also be used by inviting eligible participants to share the survey with other potential respondents. Since these are non-probability sampling techniques, the findings must be interpreted with caution when generalizing to all Generation Z employees in Indonesia.

Data will be collected through an online questionnaire. The questionnaire will include an explanation of the research, informed-consent information, screening questions, demographic questions, and items measuring the three research variables.

The demographic section may include age, gender, education, industry, job function, length of employment, and the types of GenAI tools used for work. These details will be used to describe the sample and will not automatically be treated as additional research variables.
Before the main survey is distributed, the questionnaire should be reviewed for clarity and relevance. A pilot test may be conducted to identify ambiguous items and technical issues. Adopted or adapted measurement items must be cited appropriately, and the final wording should be checked to ensure that it measures the intended construct.

Work-related GenAI use will be measured through frequency of use and the range of work tasks for which GenAI is used. AI self-efficacy will measure employees' confidence in learning and applying AI tools. Job insecurity will measure perceived uncertainty about employment continuity and concerns about the possible effects of technological change on employees' jobs.

AI self-efficacy and job insecurity may be measured using multi-item Likert scales. If a five-point response scale is used, the response anchors should be consistent and clearly explained to respondents. The final questionnaire and its measurement sources must be established before data collection. Participation will be voluntary. Respondents will be informed about the purpose of the study, the intended use of the data, and the measures taken to protect their confidentiality. Personally, identifying information will not be collected unless it is necessary and properly justified.

The collected data will be screened for eligibility, missing responses, duplicate submissions where detectable, and other data-quality issues. Descriptive statistics will be used to summarize respondent characteristics and the distribution of each variable. The measurement items will be assessed for reliability and, where appropriate, validity. Reliability analysis may include Cronbach's alpha or another suitable internal-consistency measure. The selected validity assessment should match the measurement instrument and analytical method.

Before multiple linear regression is performed, the data will be assessed against relevant regression assumptions, including linearity, residual behavior, multicollinearity, and heteroscedasticity.

RESULT AND DISCUSSION

Previous studies have documented employees' concerns regarding the implications of artificial intelligence (AI) for job security. The findings of Hariyani and Prasetio (2026) and Aulia et al. (2026) provide empirical evidence of the relationship between perceived AI-related threats and employees' perceptions of job insecurity.

Table 1. Empirical Findings on AI and Job Insecurity

Study	Sample	Empirical Findings
Hariyani and Prasetio (2026)	60 employees in the banking, financial technology, and finance sectors in South Jakarta	88% perceived job loss as a serious threat; 77% associated potential salary reductions with financial pressure; and 65% perceived declining work motivation as a factor that could increase stress.
Aulia et al. (2026)	208 Generation Z employees	Perceived AI threat was positively associated with job insecurity ($(r = 0.537)$, $(p < 0.001)$). Job insecurity was negatively associated with happiness at work ($(r = -0.214)$, $(p < 0.001)$).

The findings in Table 1 indicate that AI-related workplace concerns warrant attention from a human resource management perspective. In the study by Hariyani and Prasetio (2026), 88% of respondents perceived the possibility of job loss as a serious threat. In addition, 77% expressed concern about potential salary reductions, while 65% associated declining work motivation with increased stress. These findings illustrate that the perceived implications of generative AI may extend beyond work processes to employees' perceptions of employment stability and financial well-being.

Similarly, Aulia et al. (2026), in their study of 208 Generation Z employees, reported a positive association between perceived AI threat and job insecurity ($(r = 0.537)$, $(p < 0.001)$). This result suggests that employees who perceive AI as a greater threat also tend to report greater job insecurity. Furthermore, job insecurity was negatively associated with happiness at work ($(r = -0.214)$, $(p < 0.001)$), highlighting the relevance of employment security to employee well-being.

Nevertheless, these findings should not be interpreted as direct evidence that frequent use of generative AI increases job insecurity. Perceived AI threat is conceptually different from the frequency of using generative AI to complete work tasks. Employees may use AI frequently as a productivity-enhancing tool without necessarily perceiving it as a threat to their employment. Therefore, the relationship between work-related generative AI use and job insecurity requires further empirical examination.

AI self-efficacy also represents a relevant variable for human resource management research. Employees who feel confident in their ability to use AI tools may be better prepared to adapt to technological changes. However, the studies summarized in Table 1 do not directly test the relationship between AI self-efficacy and job insecurity. Consequently, a negative relationship between these variables should be treated as a research hypothesis rather than an established finding.

From an HRM perspective, organizations should consider communicating the role of AI in work processes, providing appropriate training, and developing employees' digital competencies. Such initiatives may help employees adapt to technological changes. However, their effectiveness in reducing job insecurity must be evaluated through further empirical research.

Overall, previous empirical evidence supports the relevance of investigating AI-related perceptions and job insecurity among Generation Z employees. The proposed research extends this discussion by examining work-related generative AI use and AI self-efficacy as two distinct explanatory variables of job insecurity among Generation Z employees in Indonesia. The proposed relationships must be tested using data collected from the target population before conclusions can be drawn about the study's hypotheses.

CONCLUSION

This study proposes a human resource management framework to examine the relationship between work-related generative artificial intelligence (AI) use, AI self-efficacy, and job insecurity among Generation Z employees in Indonesia. Previous empirical studies indicate that perceived AI-related threats are associated with job insecurity, highlighting the importance of understanding employees' perceptions of technological change in the workplace. The proposed framework examines work-related generative AI use and AI self-efficacy as two distinct factors that may be associated with job insecurity. It is hypothesized that work-related generative AI use is positively associated with job insecurity, whereas AI self-efficacy is negatively associated with job insecurity. However, these relationships require empirical testing and cannot be considered established findings until data have been collected and analyzed.

From a human resource management perspective, organizations should consider providing AI-related training, strengthening employees' confidence in using AI tools, and communicating transparently about the role of AI in work processes. These measures may support employees' adaptation to technological change, although their effectiveness in reducing job insecurity requires further investigation.

Future research should collect data from Generation Z employees in Indonesia and use appropriate statistical analyses to test the proposed hypotheses. Such research could contribute to a better understanding of how employees' use of generative AI and confidence in their AI-related abilities relate to perceived employment security.

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