

## The Influence of Artificial Intelligence Identity Threat on Employee Well-Being: The Mediating Roles of Cognitive Job Insecurity and AI Opportunity Perception at Manyar Medical Center Hospital

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### ABSTRACT

The development of Artificial Intelligence (AI) in the healthcare sector has brought significant changes to work systems and the psychological dynamics of healthcare professionals. On one hand, AI enhances services efficiency and accuracy, on the other, it raises concerns about human roles being replaced by technology. This condition potentially creates AI-induced identity threats that affect employee well-being. This study aims to analyze the effect of AI identity threat on employee well-being, with cognitive job insecurity and AI opportunity perception as mediating variables, at Manyar Medical Center Hospital. This research employed a quantitative method using a survey approach with 200 respondents through convenience sampling. Data were analyzed using Pearson correlation, linear regression, and Sobel mediation test. The results show that AI identity threat has a positive and significant effect on cognitive job insecurity and a negative and significant effect on AI opportunity perception. The relationship between AI identity threat and employee well-being was also found to be significantly negative. Both mediating variables partially mediate the relationship between AI identity threat and employee well-being, with a total indirect effect of 0,3948 ( $Z1=-3.182$ ,  $p=0.0015$  (M1);  $Z2=-6.531$ ,  $p<0.001$  (M2)). These findings confirm that employee well-being in the digital era is influenced not only by organizational factors but also by how individuals cognitively appraise the threats and opportunities posed by AI. The results highlight the importance of adaptive training, transparent organizational communication, and active employee involvement in technology implementation.

**Keywords:** AI Identity Threat, Cognitive Job Insecurity, AI Opportunity Perception, Employee Well-being.

### 1. Introduction

In the era of digital transformation, employee well-being has become a strategic issue in human resource management, particularly in the healthcare sector. Rapid changes driven by digitalization, increasing demands for technological adaptation, and emerging uncertainties regarding job roles have had a significant impact on the psychological condition of the workforce. Low levels of employee well-being are closely associated with increased stress, burnout, and the potential decline in the quality of patient care (De witte et al., 2016; Gull et al., 2023). This condition is further complicated by structural pressures within healthcare organizations that have begun adopting advanced technologies, including Artificial Intelligence (AI).

The development of AI in the healthcare sector has progressed rapidly in recent years. This technology has been applied in various forms, such as machine learning-based diagnostics, medical imaging analysis, electronic medical record management, as well as verification and health insurance claims processing (Topol, 2019). Data from the World Health Organization WHO (2021) indicate that more than 50% of hospitals in developed countries have implemented AI in their services.

Although AI offers substantial benefits in terms of efficiency and accuracy, its adoption also generates significant psychological and professional challenges for healthcare workers. One of these is AI-related identity threat, namely the feeling that human roles and competencies are at risk of being replaced. This threat can lead to a decline in professional self-esteem, loss of self-confidence, and dissatisfaction with job roles (Craig et al., 2019).

The impact of this identity threat is further reinforced by the emergence of cognitive job insecurity, which refers to feelings of uncertainty about the future of one's job due to technological changes or organizational policies (Huang et al., 2012). Job insecurity not only reduces motivation but also has a direct effect on stress levels and employees' psychological well-being (Kuijpers et al., 2020).

Nevertheless, not all responses to AI are negative. Perceptions of AI-related opportunities may also be positively associated with employee well-being. Positive perceptions of AI can encourage job crafting and stronger organizational support, which in turn enhance work engagement and psychological well-being (Xu et al., 2023).

Although the adoption of AI in Indonesia has begun to increase, to date there has been no research that specifically examines how perceptions of AI—both as a threat and as an opportunity—are related to employee well-being, particularly in private hospital settings that have started implementing administrative digitalization. One hospital that has gradually adopted digital systems is Manyar Medical Center Hospital in Surabaya. However, the psychological condition of its healthcare workforce following AI adoption, especially in relation to work well-being, remains unclear.

Based on this background, This study examines the relationship between AI-related identity threat and employee well-being, with cognitive job insecurity and perceived AI opportunities as mediating variables. The findings of this study are expected to contribute theoretically to the development of human resource management literature in the healthcare sector and to serve as a practical reference for hospitals in designing policies that balance technological transformation with employees' psychological well-being.

## 2. Literature Review

### Artificial Intelligence

Artificial Intelligence (AI) is one of the main milestones in the digital technology revolution that has transformed various aspects of human life. AI is not only applied in manufacturing and financial industries, but also plays a significant role in public service sectors such as education and healthcare (Kaplan & Haenlein, 2019). In the workplace context, AI is used to automate routine tasks, process big data in real time, and support decision-making based on complex algorithms (Ameen et al., 2021).

### Employee Well-Being

Technological development, particularly artificial intelligence, has brought major changes to the world of work. AI enables the automation of various tasks, increases efficiency, and accelerates data processing within organizations. However, on the other hand, the implementation of AI also introduces new challenges, especially related to employee well-being. Employee well-being is an important aspect that reflects workers' physical, psychological, and social conditions in the workplace. As the use of AI becomes increasingly widespread, organizations need to ensure that this technology not only enhances productivity but also pays attention to the well-being of the workforce (Xu et al., 2023).

### AI-Related Identity Threat

AI not only improves efficiency and accuracy across various sectors, but also triggers concerns among employees regarding the sustainability of their roles and professional identities

(Craig et al., 2019). AI-related identity threat arises when individuals feel that technology may replace or fundamentally change roles that have long been part of their professional identity (Mirbabaie et al., 2022).

### **Cognitive Job Insecurity**

Job insecurity is one of the greatest sources of stress in the modern workplace and has become increasingly relevant alongside technological advancements, changes in organizational policies, and growing labor market competition. Job insecurity consists of two main components: cognitive and affective. Cognitive job insecurity refers to individuals' perceptions of the likelihood of negative changes in their jobs, either in the form of threats of job loss or deteriorating working conditions (Jiang & Lavaysse, 2018).

### **Perceived AI Opportunities**

Perceived AI opportunities refer to the extent to which individuals view the presence of AI as beneficial, opening new opportunities, and improving the quality of work or services (Gursoy et al., 2019). Positive perceptions of AI emerge when employees feel that technology serves as a supportive tool in their work rather than a replacement.

## **3. Method**

### **Research Method**

This study employs a quantitative method with a survey approach. Data were collected through a previously validated questionnaire to examine the relationships among AI-related identity threat, cognitive job insecurity, perceived AI opportunities, and employee well-being at Manyar Medical Center Hospital (Gull et al., 2023; Huang et al., 2012; Craig et al., 2019; Goldberg & Hillier, 1979; Caplan, 1975; Xu et al., 2023).

### **Population and Sample**

The population of this study includes all employees working at Manyar Medical Center Hospital, both medical and non-medical staff. The total number of employees at Manyar Medical Center Hospital is 283 people. The sample in this study was selected based on predefined inclusion and exclusion criteria. The inclusion criteria were employment for a minimum of six months and willingness to participate as respondents. The exclusion criterion was incomplete completion of the questionnaire. Based on these criteria, a total of 200 respondents were included in the analysis. The respondents represented various professional groups, including nursing staff, medical services, medical support staff, general support staff, medical committee members, as well as general administration and finance staff.

### **Sampling Technique**

The sampling technique used in this study was convenience sampling. Convenience sampling is a type of purposive sampling and a non-random sampling technique in which members of the target population meet certain practical criteria. This method also refers to selecting research subjects from a population that is easily accessible to the researcher (Etikan et al., 2016). The sample size in this study was calculated using the Slovin formula as follows (Sukwika, 2023).

$$n = \frac{N}{1 + N(e)^2} n = \frac{N}{1 + N(e)^2}$$

Description:

n = sample size

N = population size

e = error rate

This study will use a margin of error of 5% (0.05).

### **Data Collection Technique**

Data collection was conducted using a questionnaire using a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire was distributed in Google Form format to respondents who met the inclusion criteria to obtain optimal responses. The questionnaire consisted of four sections: identity threat, employee well-being, perceived opportunities in AI, and cognitive job insecurity.

## **4. Result and Discussion**

### **Data Description**

#### **Respondent Characteristics**

This study involved a total of 200 respondents. Table 1 shows the distribution of respondents by gender, age group, and profession.

**Table 1.** Distribution of Respondent Characteristics by Gender and Age Group

Characteristics	Frequency (n)	Percentage (%)
<b>Gender</b>		
Male	51	25.5
Female	149	74.5
<b>Age Group</b>		
≤30 years	92	46.0
31–40 years	72	36.0
41–50 years	26	13.0
>50 years	10	5.0
<b>Profession</b>		
Nursing	77	38.5
Medical services	45	22.5
Medical support staff	21	10.5
General support staff	22	11.0
Medical committee	13	6.5
General administration and finance	22	11.0

The majority of respondents in this study were female and aged ≤30 years. The dominant professions were from general support and administrative fields, reflecting the study's focus on non-healthcare workers who handle many operational tasks such as administration and data management. This group tends to be more vulnerable to AI threats because many of their tasks have the potential to be automated, unlike medical professionals such as doctors and nurses, whose clinical expertise is more difficult to replace. This respondent distribution provides important context for analyzing differences in perceptions of the impact of AI across professional groups.

### **Hypothesis Test Results**

#### **Correlation Analysis Between Variables**

Correlation analysis between research variables using Pearson correlation was conducted prior to hypothesis testing. This analysis aims to determine the direction and strength of the relationship between the independent, dependent, and mediator variables involved in the research model.

**Table 2.** Pearson Correlation Matrix between Variables

Variable	X	Y	M1	M2
X	1	-.846*	.693*	-.794*
Y	-.846*	1	-.708*	.831*
M1	.693*	-.708*	1	-.662*
M2	-.794*	.831*	-.662*	1

**Note:** \* = Significant at the 0.01 level (2-tailed); N=200 for all pairs.

Table 2 shows that the variable identity threat due to AI (X) has a significant negative correlation with employee well-being (Y) ( $r=-0.846$ ,  $p<0.001$ ). This means that the higher the identity threat due to AI, the lower the employee well-being tends to be. Furthermore, X is positively correlated with cognitive job insecurity (M1) ( $r=0.693$ ,  $p<0.001$ ) and negatively correlated with perceived opportunities for AI (M2) ( $r=-0.794$ ,  $p<0.001$ ).

Meanwhile, Y shows a negative correlation with M1 ( $r=-0.708$ ,  $p<0.001$ ) but a positive correlation with M2 ( $r=0.831$ ,  $p<0.001$ ). These results indicate that the higher the perceived opportunities for AI, the higher the employee well-being. Conversely, increasing cognitive job insecurity is associated with decreased employee well-being. The negative correlation between M1 and M2 ( $r=-0.662$ ,  $p<0.001$ ) indicates that cognitive insecurity tends to reduce perceived AI opportunities, reflecting the complex dynamics within the hospital work environment.

### Regression Analysis

Regression analysis was conducted to examine the effect of identity threat due to AI (X) on cognitive job insecurity (M1), perceived AI opportunities (M2), and employee well-being (Y), as well as to test for possible mediation effects of M1 and M2. In this study, six regression models were used according to the proposed hypotheses:

- 1) Model 1 (X→M1)  
Tests the direct effect of identity threat due to AI on cognitive job insecurity. The regression model used was simple regression.
- 2) Model 2 (X→M2)  
Tests the direct effect of identity threat on perceived AI opportunities. The regression model used was simple regression.
- 3) Model 3 (X→M1→Y)  
Tests the mediation of cognitive job insecurity in the relationship between identity threat due to AI and employee well-being. The regression model used was multiple regression.
- 4) Model 4 (X→M2→Y)  
Tests the mediation of perceived AI opportunities in the relationship between AI-induced identity threats and employee well-being. The regression model used is multiple regression.
- 5) Model 5 (X→M1&M2→Y)  
Tests the multiple mediation of cognitive job insecurity and perceived AI opportunities in the relationship between AI-induced identity threats and employee well-being. The regression model used is multiple regression.

### Summary of Hypothesis Results

To provide a brief overview of the results of all hypotheses tested, the following table presents a summary of the hypothesis test results. Table 4.16 contains the coefficient values, significance levels, and conclusions regarding the acceptance of the hypotheses, reflecting the relationships between the research variables, both direct and indirect influences through the mediating variables.

**Table 3.** Summary of Hypothesis Results

Hypothesis	Relation	Result	Notes
H1	X → Y	Accepted	$\beta=-0.846$ , $t=-21.943$ , $p<0.001$
H2	X → M1	Accepted	$\beta=0.693$ , $t=13.512$ , $p<0.001$
H3	X → M1 → Y	Accepted	Indirect effects: $-0.1562$ , $Z=-4.496$ , $p<0.001$ (partial mediation)
H4	X → M2	Accepted	$\beta=-0.794$ , $t=-18.383$ , $p<0.001$
H5	X → M2 → Y	Accepted	Indirect effects: $-0.3288$ , $Z=-7.2423$ , $p<0.001$ (partial mediation)
H6	X → M1, M2 → Y	Accepted	Total Indirect effects: $-0.3948$ , $Z1=-3.182$ , $p=0.0015$ (M1); $Z2=-6.531$ , $p<0.001$ (M2) (partial mediation)

Based on Table 3, all hypotheses in this study are accepted, as all relationships between variables show significance values below 0.05. These results confirm that identity threats due to AI significantly impact employee well-being, both directly and indirectly through cognitive job insecurity and perceived AI opportunities.

## Discussion

### The Effect of AI-Related Identity Threat on Cognitive Job Insecurity (X→M1)

The results of this study indicate that AI-related identity threat has a positive and significant effect on cognitive job insecurity. This means that the higher employees' perceptions of threats to their professional roles due to the implementation of AI, the higher the level of cognitive job insecurity they experience. This finding is consistent with previous research showing that AI identity threat is positively and significantly associated with cognitive job insecurity ( $\beta = -0.37$ ;  $p < 0.01$ ) (Gull et al., 2023).

Employees may experience substantial job insecurity merely by considering the possibility of job automation. The relationship between AI-related identity threat and cognitive job insecurity arises from the perception that technological advancements have the potential to replace human functions and expertise, particularly in sectors with a high level of automation (Gull et al., 2023).

In the hospital context, employees' concerns about the relevance of their professional roles may emerge when AI-based systems begin to take over certain administrative, diagnostic, or patient service tasks that were previously performed manually. This condition can lead to feelings of loss of control, reduced job autonomy, and concerns about the sustainability of professional roles and competencies in the future. In addition, the implementation of digital technologies such as electronic medical records has been reported to increase administrative burdens and reduce job satisfaction among healthcare workers, which ultimately affects work-related well-being (Khavandi et al., 2023).

### The Effect of AI-Related Identity Threat on Employee Well-Being (X→Y)

The findings of this study show that AI-related identity threat has a negative and significant effect on employee well-being. The higher the perceived threat to roles and competencies due to AI implementation, the lower the level of employee well-being. This result is in line with previous studies indicating that AI-driven disruption threats can reduce employees' vitality, learning motivation, and sense of empowerment at work (Leong et al., 2025).

This condition has implications for reduced work-related well-being because employees lose their sense of competence, autonomy, and meaning in work, which are the three basic psychological needs described in Self-Determination Theory (Ryan & Deci, 2000). When employees perceive that AI-based systems can outperform humans in carrying out important

tasks, this can undermine self-esteem and create insecurity regarding the sustainability of professional roles. Such insecurity hinders psychological vitality and thriving at work, causing employees to no longer experience optimal job satisfaction and well-being (Liu et al., 2024).

Moreover, the implementation of AI in organizations may raise concerns regarding fairness, transparency, and control at work, especially when decision-making processes are driven by automated systems that are not fully explainable. This can lead to perceptions of loss of control and reduced trust in the organization, which ultimately exacerbate employee well-being (Valtonen et al., 2025). In the hospital setting, perceptions that AI may replace certain administrative or clinical functions can generate similar psychological pressure, thereby reducing healthcare workers' well-being and job satisfaction.

### **The Effect of AI-Related Identity Threat on Employee Well-Being Mediated by Cognitive Job Insecurity (X→M1→Y)**

The results of this study indicate that cognitive job insecurity partially mediates the effect of AI-related identity threat on employee well-being. This finding is consistent with the study by Gull et al. (2023), which found that cognitive job insecurity serves as a significant mediator in the relationship between AI identity threat and employee well-being. In their study, the direct effect of AI identity threat on employee well-being remained significant ( $\beta = -0.41$ ;  $p < 0.001$ ), while the indirect effect through cognitive job insecurity was also significant (indirect effect =  $-0.17$ ;  $p < 0.001$ ). This suggests that perceptions of loss of control and uncertainty regarding professional roles are important psychological mechanisms explaining the decline in well-being resulting from AI-related threats. When employees feel that their professional identity is threatened by technology, concerns about job continuity and the ability to maintain competencies arise, ultimately reducing psychological well-being.

Similar results were also reported by Kim and Kim & Kim (2024), who found that AI-induced job insecurity negatively affects psychological well-being and reduces feelings of safety in the workplace. In their study, AI-induced job insecurity was identified as a significant source of psychological strain because it generates perceptions of threats to job stability and role continuity. This condition reduces psychological safety at work, defined as the feeling of being safe to express opinions, take initiative, and innovate without fear of negative consequences. Job insecurity triggered by technological change can also increase anxiety about future career prospects and diminish overall well-being.

Theoretically, these findings support the Job Insecurity Model and Conservation of Resources Theory, which explain that perceptions of job threats deplete individuals' psychological resources and reduce well-being (Hobfoll, 1989). In the hospital context, these findings can be explained by the study of Valtonen et al. (2025), which noted that the implementation of AI in diagnostic processes, electronic medical records, and clinical decision support systems has the potential to affect healthcare workers' professional identity and well-being. Thus, this study reinforces the view that employee well-being is determined not only by objective working conditions but also by subjective perceptions of threats and the stability of professional identity in the era of digitalized healthcare services.

### **The Effect of AI-Related Identity Threat on Perceived AI Opportunities (X→M2)**

The results of this study indicate that AI-related identity threat has a negative and significant effect on perceived AI opportunities. This finding suggests that the higher employees' perceptions of threats posed by AI implementation to their professional roles and competencies, the lower their ability to view AI as a source of opportunity or potential for self-development.

This result is consistent with previous studies explaining that individuals' perceptions of AI can be understood through the framework of the Transactional Theory of Stress, in which the process of cognitive appraisal determines whether a situation is perceived as a threat or as a

challenge. When individuals appraise AI implementation as a threat to job continuity, income, or work autonomy, such appraisal triggers negative emotional responses and inhibits the tendency to view AI as a means of competence enhancement or career opportunity. Conversely, when individuals appraise AI as a challenge with potential benefits or developmental opportunities, they tend to adopt more proactive and solution-oriented coping strategies, thereby reducing stress levels and enhancing long-term well-being (Xu et al., 2023).

Empirically, (Xu et al., 2023) did not directly test the relationship between AI-related identity threat and perceived AI opportunities. Nevertheless, conceptually, their study supports a similar psychological mechanism, namely that perceptions of AI are shaped through cognitive evaluation of stressors. In this context, individuals who appraise AI as a threat tend to exhibit lower perceptions of opportunities associated with the technology, whereas those who appraise AI as a challenge demonstrate a stronger positive orientation toward self-development opportunities.

### **The Effect of AI-Related Identity Threat on Employee Well-Being Mediated by Perceived AI Opportunities (X→M2→Y)**

The results of this study indicate that perceived AI opportunities partially mediate the negative relationship between AI-related identity threat and employee well-being (indirect effect =  $-0.3288$ ;  $Z = -7.24$ ;  $p < 0.001$ ), while the direct effect of AI-related identity threat on employee well-being remains significant. This indicates that although AI-related identity threat directly reduces well-being, part of its impact is transmitted through a decline in employees' perceptions of the opportunities offered by AI. This finding is consistent with the study by (Xu et al., 2023), which showed that perceived AI opportunities positively and significantly contribute to work-related well-being through the mediation of informal learning. In the context of mediation, perceived AI opportunities can function as a psychological mechanism that buffers the negative impact of technological threats on well-being, provided that employees continue to perceive positive aspects and opportunities associated with AI.

These results are also in line with the findings of Van Esch et al. (2021), which indicate that individuals' acceptance of AI is highly dependent on how they evaluate its implications for personal control and opportunities. Perceptions that AI reduces work autonomy and fairness tend to trigger defensive reactions, whereas views that AI enhances efficiency and professional opportunities strengthen psychological well-being.

The psychological mechanism underlying the relationship between AI-related identity threat and perceived AI opportunities can be explained through the framework of Regulatory Focus Theory, which highlights the role of individuals' motivational orientation in appraising situations as opportunities or threats. Individuals with a promotion focus tend to perceive AI as a means for growth and competence enhancement, whereas those with a prevention focus are more likely to view AI as a source of risk that threatens job stability. Thus, increasing perceptions of AI-related threat may shift employees' cognitive appraisal toward threat appraisal, ultimately reducing perceived AI opportunities and leading to a decline in psychological well-being (Cheng et al., 2025).

These findings have important practical implications for hospital management in the process of AI-based digital transformation. Managing employees' perceptions of AI should be directed toward strengthening positive views and a sense of ownership of new technologies. Such an approach can be implemented through adaptive training programs, strengthening transparent organizational communication, and actively involving employees at every stage of the technology implementation process. These strategies are expected to reduce perceptions of identity threat while reinforcing perceptions of the opportunities offered by AI, thereby maintaining employee well-being amid the dynamics of an increasingly digitalized work environment.

### **The Effect of AI-Related Identity Threat on Employee Well-Being Mediated by Cognitive Job Insecurity and Perceived AI Opportunities (X→M1 & M2→Y)**

The results of this study indicate that cognitive job insecurity and perceived AI opportunities jointly mediate the relationship between AI-related identity threat and employee well-being. A dual mediation test using the Sobel test showed that both mediation paths were significant, namely the path through cognitive job insecurity ( $Z = -3.18$ ;  $p = 0.0015$ ) and the path through perceived AI opportunities ( $Z = -6.53$ ;  $p < 0.001$ ). The total indirect effect of  $-0.3948$  indicates that most of the impact of AI-related identity threat on the decline in employee well-being occurs through increased cognitive job insecurity and reduced perceptions of AI opportunities. Because the direct effect remains significant after including both mediators, this relationship is categorized as partial mediation.

This study extends previous findings by demonstrating that AI-related identity threat affects employee well-being not only through negative mechanisms such as cognitive job insecurity, but also through diminished perceptions of the opportunities offered by AI. These results complement the studies by Gull et al. (2023) and Kim et al. (2024), which emphasized the mediating role of job insecurity in explaining the negative relationship between identity threat and employee well-being. On the other hand, the findings are also consistent with the study by Xu et al. (2023), which found that perceived AI opportunities have a significant positive effect on work-related well-being through increased informal learning.

Based on Social Identity Theory (Craig et al., 2019; Petriglieri, 2011), threats to professional identity due to AI arise when individuals feel that their value and competencies lose relevance in a digitalized work system. This condition can generate two different psychological responses: some individuals experience job insecurity as an effort to protect a threatened identity, while others attempt to reconstruct their professional identity by reinterpreting AI as an opportunity for learning and self-development.

These findings can be explained through the framework of the Transactional Theory of Stress, which posits that individuals' psychological responses to stressors are highly dependent on cognitive appraisal processes (Lazarus et al, 1984). In this context, AI-related identity threat can elicit two different forms of appraisal. Negative appraisal (threat appraisal) triggers cognitive job insecurity because individuals feel a loss of control and relevance in their roles, which subsequently reduces well-being. Conversely, positive appraisal (challenge appraisal) promotes perceptions of AI-related opportunities, such as efficiency gains and new learning opportunities, which can strengthen psychological well-being. Therefore, the two mediators in this study represent two opposing yet complementary cognitive pathways in explaining the effect of identity threat on employee well-being.

In the context of healthcare services, this study underscores the importance of ensuring that AI implementation does not erode the human role of healthcare professionals, but rather strengthens it (Topol, 2019). The use of AI focused on improving efficiency and reducing administrative burdens can provide healthcare workers with more space to restore the essence of empathy in medical practice. Thus, perceiving AI as an opportunity not only has the potential to enhance employee well-being, but also to rehumanize the relationship between healthcare professionals and patients in the digital era.

## **5. Conclusion**

### **Conclusion**

In conclusion, AI-related identity threat was found to negatively affect employee well-being at Manyar Medical Center Hospital. This effect occurred both directly and indirectly through increased cognitive job insecurity and decreased perceptions of AI opportunities, which

acted as partial mediators. Overall, higher AI-related identity threat was associated with lower employee well-being via heightened job insecurity and reduced perceived benefits of AI.

Based on the findings of this study, future research is encouraged to include hospitals with varying levels of digitalization and to examine potential moderating variables such as age, tenure, professional category, and technological readiness to enhance the generalizability of the results. For practitioners, hospital management is advised to complement technological implementation with attention to the psychological and social aspects of digital transformation, ensuring that the adoption of AI supports service quality while safeguarding employee well-being.

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