AI explosion and its impact on employees' well-being. What remains to be explored?

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:Abstract

Purpose: AI has entered the workplace with tremendous velocity and intensity, affecting both business operations and employees› well-being. Nevertheless, research of AI's influence on employees' psychological well-being is still emerging, and many researchers are currently exploring the issue in parallel. The purpose of this study is to summarize the main findings of existing research and to highlight specific directions that future research should pursue.

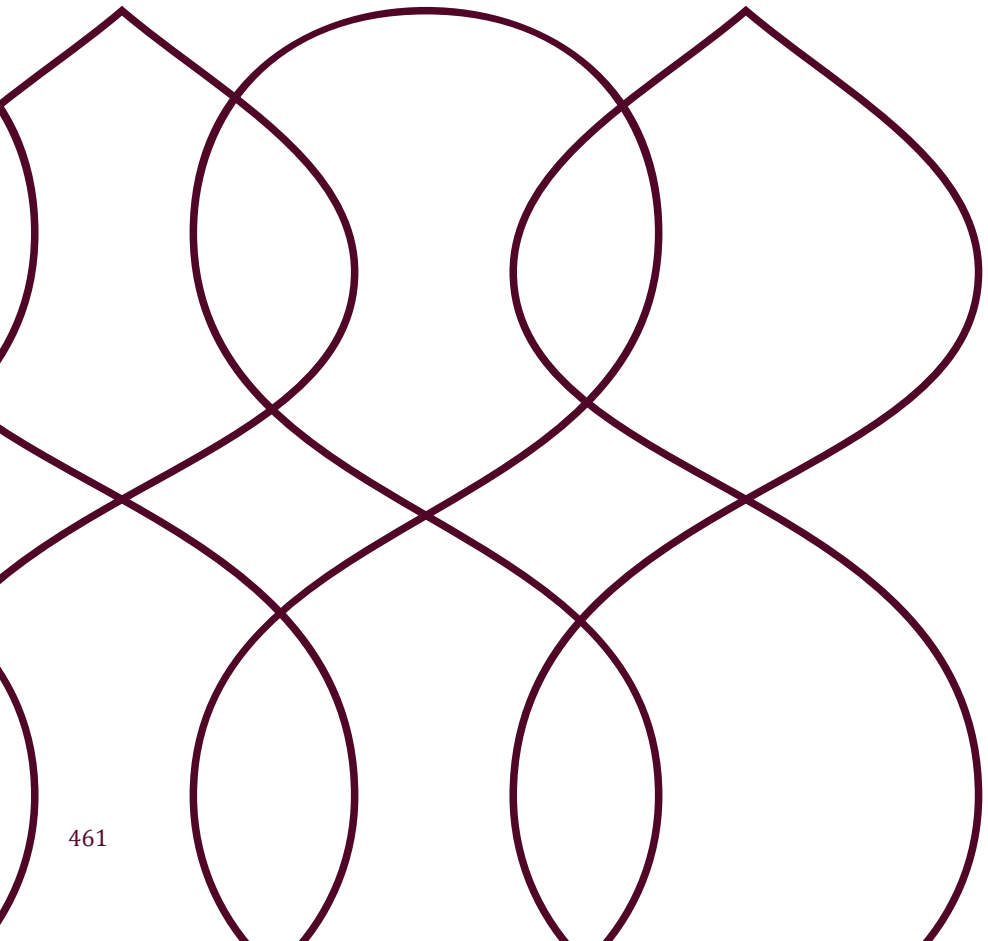
Methodology: This study uses a triangulated approach of systematic literature review, thematic analysis, and 15 interviews with employees from various sectors to validate the research focus and identify unexplored gaps to collect comprehensive information.

Findings: The effects of AI on employees' well-being were found to be predominantly negative, although some efforts to positively address and enhance AI were also observed. The hospitality and healthcare sectors have gained most scholarly attention, but there is a need to research more industries and use various methodological approaches, as well as more moderators.

Originality: The originality of this research lies in its combination of a systematic literature review with insights gained from interviews, which enriched the findings and provided valuable guidance for future research directions.

Practical implications: This approach adds practical value for organizations by guiding them on how to leverage AI in ways that benefit both their employees and their performance, without diminishing employees› job satisfaction, turnover intention, or insecurity, thus enhancing their overall well-being.

Keywords:
Employees' well-being, Mental health, Artificial intelligence, Job satisfaction, Job replacement, Stress.



1. Introduction:

Artificial intelligence (AI) and its impact on employee mental health and well-being have been, and continue to be, the subject of intensive scholarly investigation. Recent studies have examined employees' perceptions, concerns, and behaviors in response to AI (Sadeghi, 2024), its impact on digital well-being (Tiwari et al., 2024), and its role in generating job insecurity (Gull et al., 2023) or technostress (Sharif et al., 2025). The growing body of literature reflects a rapidly accelerating interest, with new contributions emerging almost daily.

Despite this surge in publications, the field remains fragmented and unevenly explored. Certain themes attract repeated attention, while other critical dimensions of employee well-being are overlooked. This creates a pressing need for a systematic literature review that synthesizes the main findings of high-impact studies and maps out gaps and underexplored areas. Such a review would prevent unnecessary duplication in a research landscape already saturated with trend-driven work. It would also guide scholars toward neglected but essential questions regarding the human experience of working alongside AI.

This review also incorporates findings from 15 interviews conducted with employees across various sectors (communications, education, counseling, and heavy industry) to deepen understanding and identify the keywords used in this review. These interviews also served as a basis to define research gaps and determinants of employee well-being that are affected by AI awareness and usage, which have not been included in current studies. By consolidating existing knowledge and identifying blind spots, the study aimed to generate a conceptual framework that can orient future research.

Given the unprecedented speed of workplaces adopting AI worldwide and the profound implications for workers' psychological and social well-being, this synthesis is both timely and necessary. Without it, there is a risk of overlooking systemic challenges, failing to anticipate long-term consequences, and leaving employees unprepared for the transformations reshaping their professional lives.

The systematic review was also selected as a methodological approach for this study because it can combine evidence and perspectives from both theoretical and empirical studies, offering a valuable tool and access to multi-sourced information (Leonidou et

al., 2020). According to Battisti et al. (2024), a successful systematic review should follow four main steps: define specific research questions; set the review protocols; conduct a descriptive analysis of the selected papers; and perform a thematic analysis to spot motives, important results, and avenues for future research. The main goal of this study was to focus on highlighting research gaps of the topic and give future researchers clearer directions, and to contribute to academia by paving the way for more problem-solving-based research. The research questions that guided this study were:

1. Based on the literature review and new interviews in various sectors' employees, which are the feelings that AI explosion (the huge and sudden induction of AI in everyday operations) brings on surface that have a positive (sense of security, support in decision making etc) or negative (stress, job insecurity etc) impact on the employees' well-being?
2. Based on the literature review, which sectors are the most influenced and studied in academia, regarding the effects of AI on employees' well-being?
3. Which are the gaps that arose from the literature review and the interviews conducted, that need further attention both from academics and practitioners?

Taking into consideration that this study refers to the psychological aspects of the implementation of AI in the workplace, and given the different psychological stance of individuals, the outcomes are expected to be double-edged. Depending on the personality, the flexibility, the position and the professional maturity of the employees, together with the different incorporation of AI in each sector, the results are anticipated to be both positive and negative. Additionally, because of the rapid adaptation of AI by businesses, it is expected that, up to now, only major psychological features have been studied, and many and interesting gaps will arise that will help future research to focus on them and flourish.

Methodology

Interviews

In the first step of the systematic review, interviews were conducted with employees from multiple sectors. This is due to two separate reasons: First to address the first research question, grasping their feelings from the incorporation of AI in their workplace. Secondly, to identify useful keywords to further enhance the research string.

Following Niedbal and Pytel-Kopczyńska (2024), participants were asked to denote their positive and/or negative emotions that arose from AI usage into their work. Apart from specific suggested feelings (life satisfaction, job satisfaction, job security, anxiety, depression, stress etc), interviewees were free to express themselves and include feelings different from the ones that were proposed as guidance.

Fifteen interviews were conducted with employees from different positions who work in the communication, education, counseling, and heavy industry sectors. The fifteen interviews were deemed sufficient as the data reached the saturation point and no new themes emerged from the dataset (Naeem et al., 2024). Table 1 presents their position and years of experience.

Table 1: Sample characteristics

.No	Sector	Position	Experience
1	Communications	Contract Manager	years 20<
2	Communications	(Manager (HR	years 10-20
3	Education	Program Leader	years 5-10
4	Communications	(Manager (Purchases	years 10-20
5	Communications	Entry-level	years 5-10
6	Education	Professor	years 10-20
7	Education	Lecturer	years 5-10
8	Heavy Industry (Recy-(cling	General Manager	years 20<
9	Communications	Entry-level	years 10>
10	Counseling	Employee	years 5-10
11	Counseling	Manager	years 10-20
12	Heavy Industry (Recy-(cling	Owner	years 20<
13	Education	Program Leader	years 10-20
14	Heavy Industry (Recy-(cling	Employee	years 20<
15	Counseling	Entry-level	years 5-10

The participants were asked to reveal the positive and negative feelings they experienced after AI was implemented in their workplace or by their profession in general. After coding the replies and separating the positive, the negative and the ambiguous feelings that were stated by the interviewees, these emotions were added to the research string. This step was found to be of great importance because many of these feelings were not found through the subsequent systematic review; thus, they were considered "gaps", and they are included in the last section of this paper.

Systematic review and thematic analysis

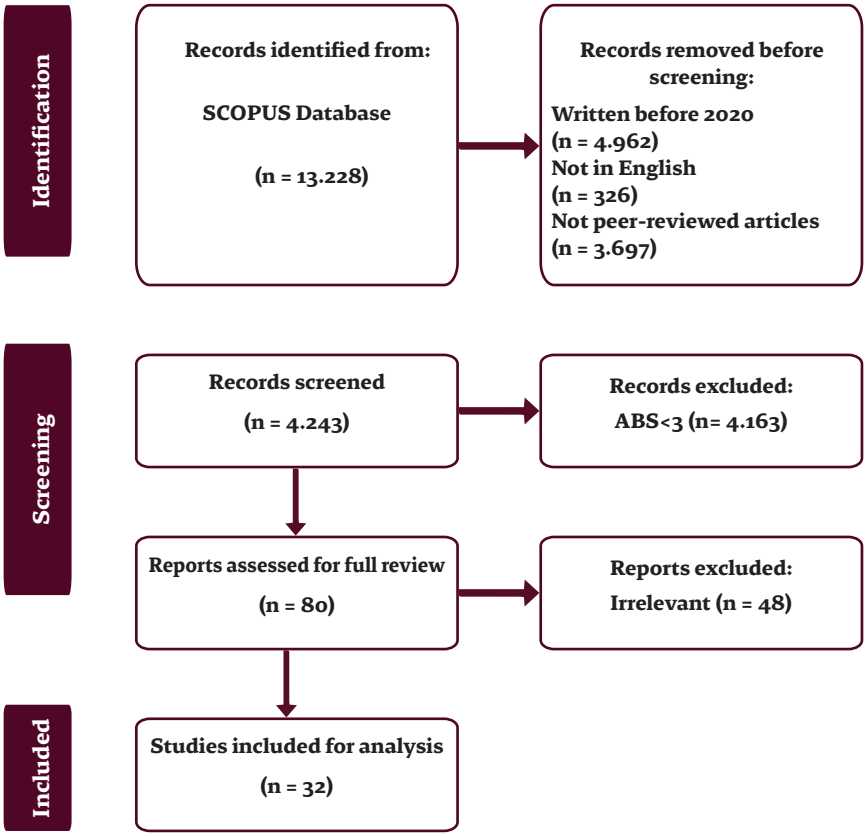
After the interviews were completed and coded, we continued with the second step of the systematic review, which was to set the review protocols, following the PRISMA methodology. Here, we employed inclusion and exclusion criteria with the aim of detecting the articles that would be included in the descriptive and thematic analysis. To ensure the highest quality papers, the SCOPUS database was chosen. SCOPUS is well-known for the wide range of papers, which curtails the risk of bias (Pizzi et al., 2020). Also, SCOPUS is an extensive resource of published papers, allowing effective access to plenty of information that is necessary for this type of review (Pranckutė, 2021). Furthermore, this study includes papers that were published after 2020 because of the nature of the topic. The research string, as well as the inclusion and exclusion criteria, were discussed and approved by an expert panel, consisting of expert academics in the field.

The following research string related to employees' well-being was used: (TITLE-ABS-KEY(employee OR worker OR personnel) AND TITLE-ABS-KEY(well-being OR "well-being" OR "mental health" OR burnout OR stress OR anxiety OR "technostress" OR "job satisfaction" OR insecurity OR optimism OR confidence OR security OR safe OR secure OR psychology OR laziness) AND TITLE-ABS-KEY(AI OR "artificial intelligence"). With it, we initially selected 13.228 papers. Then only articles that were peer-reviewed were kept (Vrontis et al., 2021), and articles that were not written in the English language were rejected (Claro et al., 2024).

Continuing with the PRISMA methodology, the articles that were published in journals that ranked 4*, 4, and 3 in the 2024 Association of Business Schools Academic Journal Quality Guide were selected, (Mabey, 2013; Atewologun et al., 2017), ensuring that only the best quality papers proceeded for the final analysis (Brooks et al., 2023). Prior to the final inclusion, the papers were independently reviewed by two researchers to ensure

reliability. By applying all the above-mentioned inclusion and exclusion criteria, 32 of them were finally accepted for further analysis. Figure 1 presents the PRISMA methodology followed for the purpose of this study.

Figure 1: PRISMA flow diagram



Descriptive analysis

Year of publication

As mentioned before, this review focused on articles published after 2020 to gather the most recent trends on this topic. Another reason behind this choice is that AI has entered the workplace over the last years, and this is more than evident in the literature. Most of the selected papers were published in 2025 (n = 20, f = 63%), followed by 2024, where 7 papers were published (22%). The rest of the articles were distributed between 2023 (n = 1, f = 3%), 2021 (n = 1, f = 6%), and 2020 (n = 2, f = 6%). This highlights the growing trend in research around AI and how it affects the employees' well-being, which is more than necessary in the business world.

Geographical scope

Asia seems to dominate research on AI and its effect on the well-being of employees, with 22 out of the 32 papers (f = 69%), mainly from China (n = 17). This result was expected since China is known as one of the leaders in AI development (Khanal et al., 2025) because of the governmental strategic direction towards AI and due to the struggle for prominence in AI research (Checketts et al., 2025). Some papers focused on USA samples (n = 4, f = 12.5%), Europe (n = 2, f = 6.25%), Australia (n = 1, f = 3%) and various countries (online research, n = 3, f = 9.3%). The topic needs further investigation in the USA and Europe, where it is still in its infancy.

Research field

The selected papers were distributed among six research fields, which were based on ABS 2024 categorization. The majority of the papers were published in journals of sectoral studies (28%), followed by papers in the Psych (General) sector (25%), Psych (WOP-OB) (16%), Ethics-CSR-Man (16%), Innov (16%), and Info Man (3%).

Journals

Most of the papers were published in Behavioral Sciences (25%, ABS 4) and International Journal of Hospitality Management (25%, ABS 3), followed by Journal of Business Research (16%, ABS 3), Technological Forecasting and Social Change (16%, ABS 3). Journal of Business and Psychology followed (6%, ABS 3) that, and Information Technology and People (ABS 3), International Journal of Contemporary Hospitality Management (ABS

3), Journal of Managerial Psychology (ABS 3), and Journal of Organizational Behavior (ABS 4) each represented 3% of published articles.

After summarizing the description of the selected papers, this article continues with the thematic analysis to detect trends and motives, summarizes the main findings, and finally identifies gaps in the literature that need to be fulfilled by future researchers.

Thematic analysis

The purpose of this section of the literature review is to address the first research question and detect the positive and negative impact of AI on employees' well-being. It was found that employees were affected in both ways, depending mainly on their level of awareness, the level of AI usage and their position.

The positive impact of AI on employees' well-being

Although most of the papers focused mainly on the negative impact of AI on employees' well-being, some authors highlighted positive aspects that affect well-being directly or indirectly. Gui et al. (2025) found that the substitution of low-level skills and repetitive tasks by AI can help employees focus on more important issues and facilitate their work flow. They also examined the impact of AI awareness on employees' performance and revealed that negative perceptions and awareness of AI increases the threatening feeling about job replacement, and raises ethical concerns about privacy and discrimination. On the other hand, positive awareness of AI enhances employees' work and performance, confirming the expected dual effects of the adoption of AI in the workplace.

Additionally, Valtonen et al. (2025) revealed that AI adoption has an indirect effect on employees' well-being. They highlighted the role of AI in optimizing tasks and procedures, data security, and occupational health and safety, thus indirectly improving well-being in the workplace. Zhou et al. (2024) also suggested that AI stress can lead to positive results through the creation of learning opportunities, which lead to improved performance and acceptance of digitalization. Employees can trust AI if it is combined with active learning strategies when facing AI stress. These results underscore that AI has also indirect effects that positively effect the well-being of the employees.

Negative outcomes of AI on employees' well-being

The integration of AI in the workplace may increase efficiency in organizational activities. However, previous studies have focused on the negative effects that AI can have on employees' psychology and well-being. Uygungil-Erdogan et al. (2025) revealed that it can bring anxiety. Wu et al. (2024) argued that employees face uncertainty and a loss of trust when they believe AI is an alternative solution to human capital. This increases employee turnover intention and leads to a tendency toward quiet quitting.

Although Zhou et al. (2024) examined the positive side of stress on learning opportunities, Hou and Fan (2024) found that it has a negative impact on work engagement. This relationship is mediated by psychological capital and moderated by organizational support. The higher the organizational support, the lower the negative effect of AI stress on psychological capital and vice versa. Also, Hou and Fan (2024) found that the higher perceived organization support, the lower the negative impact of stress on the psychological capital. Thus, although AI stress can decrease employee well-being, a firm's support can control it. This shows how businesses can facilitate their employees to increase their level of acceptance of AI. This is consistent with Kong et al.'s (2021) study, which revealed a positive relationship between AI awareness and employee burnout that can be moderated by organizational commitment. It highlighted the need for proper support to leverage the positive effects of AI.

The major role of leadership in moderating the relationship between AI adoption and employees' behavior is also mentioned in Zhou and Yi's (2025) study. They agreed with Kong et al.'s (2021) findings, adding that job insecurity, which is driven by AI awareness, can lead to unethical pro-organizational behaviors. However, they argued that this negative result can be weakened when ethical leadership is present.

A main concern of employees is the job insecurity that AI creates, and this is also highlighted in previous literature. Brougham and Haar (2020) found that the perceived threat of technological disruptions like AI had a significant impact on job insecurity, especially among employees with fewer job options affecting their mobility. Lingmont and Alexiou (2020) complemented that study by revealing that there are significant consequences of job insecurity on employees' well-being and attitudes. The higher the employees' awareness of the new technologies, the higher the feeling of insecurity, which can be eliminated by the organization providing sufficient retraining opportunities. AI

awareness was also examined in Zheng and Zhang's (2025) study. They found that AI awareness is positively associated with job insecurity. This, in turn, predicts emotional exhaustion, complementing and confirming Lingmont and Alexiou's (2020) work.

Job insecurity was also found to moderate the relationship between organizationally prescribed perfectionism (OPP) and counterproductive work behavior (Kim et al., 2024). Their study also revealed that AI learning self-efficacy moderates the relationship between OPP and job insecurity. Specifically, when employees feel more confident in their ability to learn and adapt to AI technologies, the positive association between OPP and job insecurity becomes weaker.

Technology-induced job insecurity can also lead to employee burnout and a decrease in their performance. Probst et al. (2025) found that this result is amplified when perceived scarcity is higher, making employees even more stressed, decreasing their well-being.

It is evident in literature that the adoption of AI in the workplace can also have a negative impact on employees' well-being, as expected. Nevertheless, the leadership style and/or the organizational support can smooth these effects and shift AI usage towards the facilitation of operations and the diminishing of the employees' feelings of stress and insecurity.

Dual effects of AI on well-being

The dual effects of AI adoption have also been explored in previous research. Zhao et al. (2025) examined the role of creativity in effectively implementing AI in the workplace. They revealed that challenge appraisals of AI-enabled job non-routinization promote proactive forms of creativity, while hindrance appraisals lead to more reactive creativity. In addition, employees' awareness of tacit knowledge serves as a moderating factor that strengthens the effects of challenge appraisals and weakens the effects of hindrance appraisals, thereby shaping the type of creativity that emerges.

The effects of AI adoption in non-financial aspects of a company were examined by Jerez-Jerez (2025). They found that employee readiness for, and openness toward, AI play an important role in driving both AI implementation and progress toward UN's Sustainable Development Goals. It also enhances non-financial outcomes, including employees' optimism, satisfaction, and engagement, increasing their overall well-being.

The dual effects of AI on employees are also evident in Yang and Jiang's (2025) study, which examined the effects of STARA (smart technology, artificial intelligence, robotics, and algorithms) awareness in job crafting. They found that when employees are aware of STARA, they may face it as either a challenge or a threat, leading to several forms of job crafting. Challenge appraisals encourage employees to engage in approach job crafting, whereas threat appraisals lead to avoidance job crafting. Additionally, having a positive stress mindset strengthens the influence of challenge appraisals and reduces the influence of threat appraisals. Overall, a positive stress mindset shifts employees toward more constructive responses to STARA. That study complemented previous research by Cheng et al. (2023), which stated that the impact of organizational AI adoption on employees' challenge and hindrance appraisals, as well as their subsequent job crafting behaviors, is influenced by their locus of control. Organizational AI adoption triggers challenge appraisals and promotion-focused job crafting in employees with an internal locus of control. On the other hand, it induces hindrance appraisals and prevention-focused job crafting in those with an external locus of control.

Verma et al. (2024) examined whether responsible AI can help employees express positive or negative behaviors by decreasing or increasing technostress. Responsible AI (RAI) establishes and enforces a consistent set of standards that ensure AI systems are safe, ethical, transparent, and reliable so they can be used responsibly in real-world applications. Verma et al. (2024) found that RAI can have dual impacts: On the one hand, it can help employees gather new ideas, find better solutions to problems, and increase efficiency. On the other hand, technostress can diminish their task performance and increase their worries and level of uncertainty. This result was expected as already mentioned, due to the individuality and different perceptions, matureness level and flexibility of the employees.

In addition, with the broad application of AI technology in the workplace, employees need to upgrade their skills and abilities, redefining their roles. Although this relationship can enhance employees' well-being by increasing competence and growth, it can harm their well-being through lower job-embeddedness, which makes them feel less attached and less secure in the organization (Chen et al., 2024), highlighting the dual effects of the adaption of AI. This research is complemented by Klonek and Parker's (2025) study, which, once again, highlighted the dual effects of AI-adoption on workplace well-being. They revealed that when AI exerts high levels of control, employees ex-

perience higher stress, while effective human-AI team interactions help reduce stress. In line with the moderation hypothesis, both action-focused and interpersonal human-AI team processes further counteracted the stress caused by high AI control. This highlights the need to carefully manage AI control in the workplace to safeguard employees' mental well-being.

Finally, AI usage was found to significantly enhance employees' willingness to take risks (Han et al., 2025), mediated by self-efficacy. Thus, organizations should encourage employees to view AI as an opportunity for learning and development rather than as a threat. By motivating employees to take part in training programs and seek constructive feedback, organizations can help them build their technological capabilities, which in turn enhances their self-efficacy, work efficiency, and overall innovative performance.

Focusing on specific sectors

It is important to examine previous research articles that observed the effects of AI adoption in specific sectors, as set in the second research question. Analyzing these studies could detect similarities and differences that could drive businesses in their strategies towards this technological shift.

The hospitality industry has gained a lot of attention recently regarding the role of AI in its operations and the psychology of the workforce. This is due to its human dependency and labor intensity that make it ideal for technological innovations and automations (Kumawat et al., 2024). Nayak et al. (2025) studied the impact of algorithmic HRM (AHRM) on the hospitality HR employees. They revealed that AI-driven interventions negatively affected employees, increasing stress levels as an immediate response, decreasing well-being after continued exposure, and weakening organizational commitment over the long term. HRM was also examined in Zheng et al.'s (2025) research. Authors found that HRM systems based on AI lead to four distinct negative experiences: the erosion of interpersonal autonomy, surveillance-induced precarity, the algorithmic bias dilemma, and personalized discontent. These experiences had a negative effect on well-being, such as psychological alienation, physical adaptive overload, and social marginalization.

Staying in the hospitality industry, Yan et al. (2025) investigated the stress perspective on employees' mental health. They found that AI awareness leads to role conflicts, thus it increases employees' stress levels, anxiety, and depression. Additionally, AI-enabled HR analytics intensified the relationship between AI awareness and role conflict. These negative effects are also evident in Xu et al.'s (2025) study on frontline hotel employees. They revealed that organizational dehumanization in the hotel sector and the implementation of AI service robots significantly reduce frontline employees' service passion. At the same time, it was found that organizational dehumanization serves as a mediator in the relationship between AI service robot adoption and frontline employees' service performance, enhancing performance, albeit only for the short run.

Finally, Liu et al. (2024) examined the effects of AI adoption on the hospitality employees' well-being, resulting in ambiguous findings. On the one hand, AI usage boosts employees' technological self-efficacy by promoting prosocial service behavior. On the other hand, it triggers workplace anxiety, leading to work withdrawal behavior. Additionally, Koo et al. (2021) examined the impact of AI on hotel workers' job insecurity and revealed some interesting findings: perceived job insecurity directly increased perceived job engagement and indirectly influenced turnover intention through its effect on perceived job engagement.

Healthcare sector, has also gained a lot of attention in academia mainly due to the challenge that AI adoption not only requires technological implementation but also meeting important psychological needs (Huo et al., 2025). Irgang et al. (2025) revealed that paradoxical tensions (persistent contradiction in which two or more seemingly conflicting elements coexist over time) have a positive effect on both individuals' intentions to adopt AI systems and tools and their satisfaction with current AI usage. The findings also show that a paradoxical mindset (the ability to balance contradictory ideas) serves as a positive mediator in these relationships.

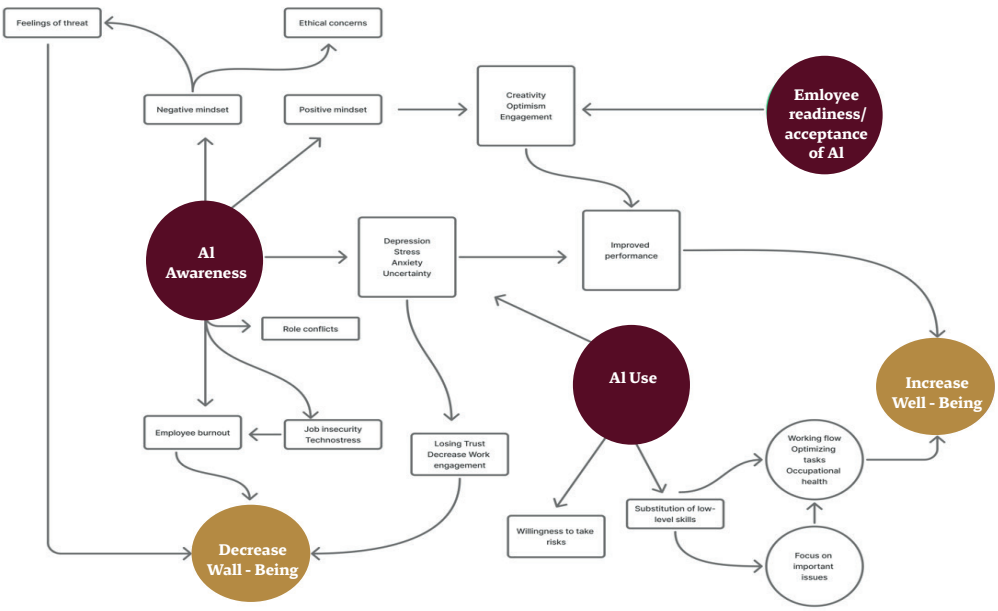
AI acceptance in the healthcare sector was also examined by Di Stefano et al. (2025), focusing on staff radiologists. They studied the mediating and moderating role of AI acceptance on self-efficacy and technostress levels. They found that perceiving the professional utility of AI may enhance employees' willingness to adopt the technology, serving as a resource that mitigates stress. Concurrently it heightened awareness of task modifications, increased workload, and skill demands, which directly exacerbate strain.

Results are also ambiguous in the manufacturing sector. In their research on manufacturing workers, Zhong et al. (2025) suggested that AI-enabled job features are a source of stress that facilitates the workflow by increasing engagement and mastery. On the other hand, they diminish workflow because they create strain, frustration, and uncertainty, reducing motivation and effectiveness.

Finally, Jo and Park (2025) conducted research on office employees' fear of being replaced by generative AI (GAI). They revealed that features such as personalization and anthropomorphism, which make GAI appear more human-like and adaptable, were strongly associated with increased fears of job displacement. Additionally, skepticism was found to play a key moderating role in the relationship between these GAI characteristics and employees' anxiety about job loss.

Figure 2 (causal loop diagram) summarizes the main findings of the reviewed studies, illustrating the links between AI and employees' well-being and revealing the dual effects of this integration of new technology in the workplace.

Figure 2. Main findings (causal loop diagram)



Source: Authors' own

Defining gaps and avenues for future research

Apart from extracting and summarizing the main findings of previous research, the novelty and the main goal of this systematic review was to detect research gaps and suggest avenues for further research, addressing the third research question. The issue of mental health and well-being in the workplace has attracted much attention over recent years, and it continues to be analyzed through various approaches. In order to prevent repetitiveness and overlapping research, this section adds knowledge to the field, by clarifying and summarizing what gaps remain to be explored, either as suggested by previous research or based on the interviews that were conducted for this study.

How to use AI to enhance employees' well-being

From the preceding thematic analysis, it is evident that the majority of the published papers focused on the negative impact of AI usage/ awareness on employees' well-being, but it is sure that the opposite may also hold, and this warrants further exploration. To balance findings, Jo and Park (2025) suggested that future research should go beyond investigating the decrease in employees' mental health that AI causes and focus on factors that decrease employees' AI anxiety about job replacement. Zheng et al. (2025) added to this proposal, suggesting that future research should adopt a balanced approach by exploring how AI-based HRM systems can proactively boost positive outcomes, such as personal growth, creativity, and collaboration among employees, thus enhancing their well-being level.

To manage using AI without harming employees' well-being, more possible moderators could be included in future models to examine their role in AI awareness on job insecurity, work engagement, emotional exhaustion, or turnover intention. It would be of great interest to identify factors that, for example, explain how and when AI-augmented or AI-depleted awareness influences specific employee outcomes (Gui et al., 2025). This kind of analysis would illuminate how these relationships vary under different conditions and provide useful guidance for designing interventions that reduce harmful impacts while strengthening beneficial ones.

However, future research should also consider organizational factors, such as leadership style, working conditions, and perceived job security, as well as individual factors like resilience, learning motivation, and technological adaptability, all of which may positive-

ly influence this process, according to Uygungil-Erdogan et al. (2025). Future research could finally examine probable positive outcomes of organizationally prescribed perfectionism, such as increased innovation or job performance, under certain conditions (Kim et al., 2024). The shift from studying AI's negative impacts to finding ways to use it as a tool for enhancing well-being and increasing performance should be the major concern of researchers in the future.

The incorporation of different moderators and factors that affect well-being in the workplace

Many factors that could facilitate AI acceptance, usage, or that impact the way that employees react with new technologies remain underexplored. Jo and Park (2025) stated that further research is needed to examine how demographics shape the level of job replacement anxiety, including age, job position, tenure, or AI usage frequency.

Of course, organizational support and leadership styles need to be included in these studies (Zhong et al., 2025; Nayak et al., 2025), together with team atmosphere (Han et al., 2025) and team dynamics (Liu et al., 2024). The role of leadership is also highlighted in Zhou and Yi's (2025) study, which suggests that future research would benefit from focusing on digital transformation leadership (the leader's ability to drive changes) and how it moderates the relationship between AI awareness and employees' behavior. Given that AI is reshaping work processes, it is essential to also understand how leaders allocate resources between AI systems and human employees, and how their actions influence employee responses (Liu et al., 2024). Thus, future studies should investigate leadership behaviors as key moderators in the context of AI integration.

Other contextual variables, such as social support or organizational culture, could also be incorporated in future models, according to Di Stefano et al. (2025). Additionally, familiarity with AI and trust in AI are critical components of AI awareness and should be considered as moderating factors in future research (Zheng & Zhang, 2025).

Valtonen et al. (2025) also advised examining how AI impacts employee well-being in various ways, such as increasing performance and achievement through task automation while at the same time diminishing social interaction, or including job meaningfulness, and employees' cognitive abilities as determinants of well-being. Factors such as employees' previous experiences with AI or self-efficacy must be examined for their role

in shaping employees' opinions, attitudes, and subsequent behavioral responses to digital transformation (Zhou et al., 2024).

The technical aspects of AI should also be further studied, as suggested by Zheng et al. (2025). AI transparency, explainability, and adaptability may impact employee perceptions and outcomes, and this is a topic that needs further investigation. Additionally, the purpose of a firm adopting AI technology should be further explored, as suggested by Probst et al. (2025). Specifically, they believe that it is significant to investigate how the emerging technologies are being employed (e.g., to replace human capital, support the workforce, or enable employees to compete in new duties) and whether they affect the results. Valtonen et al. (2025) suggested that research should also include the firm size as a moderator that affects employees' well-being.

The need for more methodological approaches

Most of the studies included in this systematic review are either qualitative or quantitative in nature, usually conducted through interviews or surveys and questionnaires. To gather a holistic approach to the topic, various methods should also be engaged. Han et al. (2025), who focused on the willingness of employees to take risks and how it is affected by AI use, suggested that future researchers should undertake experiments to obtain more specific results. Regarding the research tools and scales used to measure the level of well-being and mental health of the employees, Yan et al. (2025) suggested that future research should employ more comprehensive measures such as Beck Depression Inventory (Beck et al., 1961) and the Generalized Anxiety Disorder-7 (Spitzer et al., 2006), which can provide more detailed assessments of depression and anxiety, respectively. Uygungil-Erdogan et al. (2025) focused on the impact of AI anxiety on turnover intention, based on quantitative methods. They suggested the incorporation of qualitative research approaches (e.g., interviews and case studies) to gain a deeper knowledge of how AI anxiety impacts employees' emotional and cognitive procedures. Thus, it will be possible to more comprehensively evaluate employees' experiences and how their concerns are reflected in their daily work practices and to gain deeper insights.

Additionally, regarding the methodological approach of researchers, Zhao et al. (2025) suggested that longitudinal studies are needed to examine if and how a non-routinization approach shapes creativity and how this, in turn, can increase or decrease employ-

ee well-being. Longitudinal studies are also needed to examine the effects of AI-based HR practices on HR practitioners, according to Nayak et al. (2025). Longitudinal studies with a duration about 12-24 months could be capable of confirming or rejecting the underexplored feelings that were detected through the conducted interviews and track if the positivity and the emotions of refreshing and renewal that AI brings to the elder employees has lasting effects or not. Future research could additionally explore cultural nuances by comparing AI-related stress, work engagement, and perceived organizational support across different cultural settings, and by examining how psychological capital functions within these diverse contexts (Hou and Fan, 2024; Kim et al., 2024).

A wider, more multi-dimensional approach is necessary to understand how varying configurations of AI-enabled technologies, such as levels of automation, frequency of interaction, and system autonomy, impact employees' psychological, emotional, and behavioral reactions (Heirati et al., 2025). Authors suggest that future researchers should use longitudinal, qualitative, and experimental methods to examine how different modes of human–robot collaboration, for example, affect job satisfaction, well-being, and workplace motivation. Key questions could focus on how organizations can integrate AI while ensuring job security, supporting skill development, and cultivating a sense of belonging, as well as how role-related stress and the psychological strain of role conflicts can influence employees' readiness to work with service robots. Xu et al. (2025) suggested that there is a need for more in-depth investigation into the potential impact of AI-robots in the hospitality sector, with different functions, on frontline employees' well-being.

Insights in these areas will help firms implement AI in ways that sustain engagement, foster well-being, support reskilling, and reinforce employees' connection to the organization, according to Heirati et al. (2025).

The necessity of industry-level analysis

Jo and Park (2025) recommended that examining the effects of AI adoption on employees' well-being would benefit from future studies on the different organizational strategies, workforce dynamics, and industry practices at the organizational or industrial level. Han et al. (2025) complement these suggestions by supporting that since culture, job environments, and the amount of technological dependence vary across different

sectors, future research should expand into more fields to ensure the generalizability and pertinence of the findings. This gap is also detected in Zheng et al.'s (2025) research, suggesting that there is a need for studies to expand to different organizational settings, such as the public sector, small startups, or traditional industries, to examine whether well-being outcomes vary across contexts.

Additionally, AI anxiety that is linked to exhaustion and quiet quitting should be further explored through comparative studies in different sectors, as Uygungil-Erdogan et al. (2025) suggested. Comparing the anxiety experienced by employees in technology-driven industries with the concerns of those in more traditional sectors can help identify sector-specific needs and inform the development of tailored strategies.

Unexplored feelings

Regarding the third research question and the unexplored features of employees well-being due to AI adoption, it was found that there are still many emotions and feelings that previous studies had not detected or explored and need attention. Interviewees were asked to think about how AI adoption in their work affected their well-being, either positively or negatively. Many of the disclosed feelings were already covered in the literature, such as the fear of replacement or concerns about long-term job stability, technostress, or anxiety about mastering AI tools, and doubts about AI accuracy. On the positive side of emotions, they revealed that AI increased employees' task speed, reduced human error, and facilitated the low-skill task requirements.

Nevertheless, some feelings arose during the interviews that were not mentioned in previous studies and need exploration. Participants stated that among the positive emotions gained from the AI use are the security they feel due to the improved decision quality that AI brings. When employees use AI to clarify blind spots, expand their alternatives in the problem-solving process, or have access to more information, they feel more confident about their decision. This is associated with heightened self-esteem, a stronger sense of personal efficacy, and an increased belief in their ability to lead a company or team.

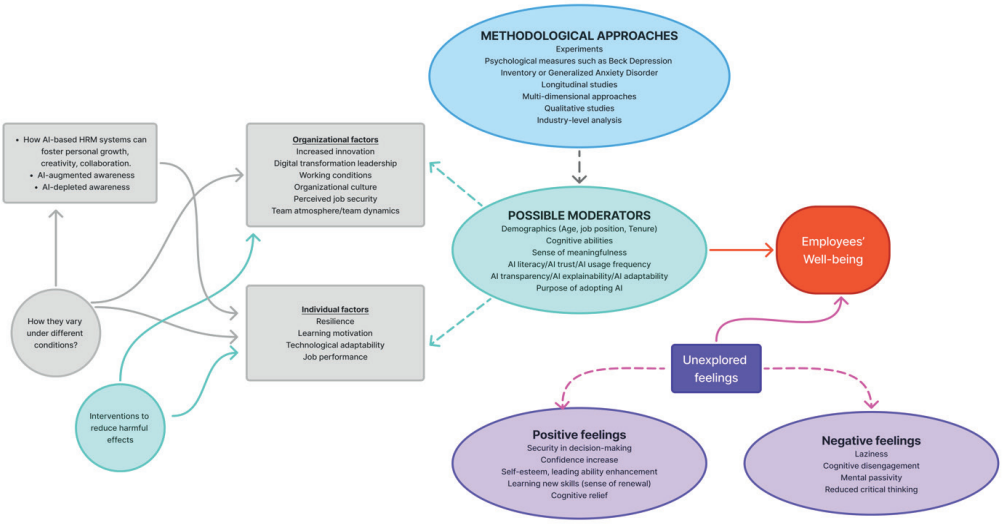
Another advantage of AI is the opportunity it provides for acquiring and developing new skills. Especially for employees of Generations X and Y, who have an experience over 10 years, and did not grow up in a digitally native environment, learning to operate these

new tools fosters feelings of renewal and refreshment. Additionally, it ignites their passion for learning, and keeps them engaged with new trends, all of which enhance their well-being.

Another novel feeling that arose from the interviews was the cognitive relief because of the ability of AI to assist workload. On the one hand, this emotion had a positive impact on employees because their stress decreased, especially in jobs that demand preparing a large amount of paper/slides (teaching, counseling, directing, and managing). On the other hand, an impressive finding indicated a rise in laziness and cognitive disengagement as employees started relying on AI for low-skilled tasks. Their fear focused on the mental passivity and the reduced critical thinking that they feel they are falling into. Their lower initiative and decreased sense of challenge may lead to skill atrophy due to over-reliance on AI, unless they fight against it, at the expense of their convenience. This poses a challenge for researchers and practitioners, as they need to leverage AI to improve workflow without compromising employee motivation or job satisfaction.

Figure 3 summarizes the gaps that arose from this research, serving as avenues for future research.

Figure 3: Gaps and suggested avenues for future research



Source: Authors' own

Limitations

As the study relies on cross-sectional data due to time restrictions, it naturally faces constraints related to understanding context and applying the results broadly. Conducting longitudinal research in the future (12-24 months long) could help generate richer, more nuanced conclusions. Additionally, future research can increase the sample size (reaching different or more sectors) and the findings of this study can also be tested through more in-depth qualitative approaches or quantitative methods to question, confirm, or enhance the results.

To focus only on the most high-ranked articles that are published, we selected only articles that are higher or equal to 3 in the ABS raking system, thus, it is possible that some valuable papers were not included in this study. Future research could change the criteria and include lower-ranked journals in the review. Also, this study relied only on SCOPUS database to detect articles, as it is well-known as an extensive resource of published papers, but further research can include more databases (for example Web of Science or Google Scholar) to strengthen its inclusion capability of relevant papers.

Although the results from the literature review have an international coverage, as the exclusion criteria did not include region restrictions, future research could focus on specific regions with similar cultures and mindsets, and make comparisons between them, to highlight similarities and differences. That way, the generalizability of the findings would be strengthened and increased.

Conclusions

The tremendous rise in AI during the last years in the workplace has caused many direct and indirect effects on both business operations and employees. The impact on employees is evident. It facilitates their daily workload, minimizes time spent on low-skilled requirements, and increases productivity and decision-making. On the other hand, it has ambiguous effects on their mental health and well-being. This study integrated a systematic review complemented with qualitative interviews to identify the most prevalent effects of AI on employee well-being, while also uncovering gaps in the existing literature that warrant further investigation. By highlighting these areas, the study helps future research avoid unnecessary overlap, conserving resources and streamlining the research process.

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