

Artificial Intelligence and Workplace Psychological Well-Being: A Review of Evidence On Job Insecurity and Occupational Stress in It and Ites Sectors

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Abstract

Artificial intelligence (AI) has moved from a specialist technology to an increasingly routine component of contemporary organizational work. In information technology (IT) and information technology enabled services (ITES), AI-supported coding, analytics, service automation, content generation, monitoring and decision support are changing both the distribution of tasks and the expectations placed on employees. The psychological consequences of this transition are less settled than its productivity narrative. This review synthesizes literature published primarily between 2020 and 2025, supported by established work on job insecurity, occupational stress, technostress, job demands and resources, conservation of resources, and employee well-being. The evidence indicates that AI does not produce a uniform psychological outcome. It can reduce repetitive effort, improve task performance and create opportunities for higher-value work, while at the same time generating uncertainty about role continuity, pressure to acquire new skills, cognitive overload, reduced autonomy and intensified perceptions of monitoring. Recent studies show that perceived AI competence and automation potential can increase job insecurity; AI-related technostress may operate through anxiety and other affective responses; and organizational support, technical self-efficacy, career resilience, responsible implementation and task redesign can alter these relationships. A recurring limitation is the separation of constructs that are closely connected in actual employee experience. Job insecurity is often examined without occupational stress, while well-being studies may emphasize positive work redesign without sufficiently examining perceived threat. The review therefore proposes an integrated pathway in which AI exposure and AI-related perceptions influence work demands and resources, which shape job insecurity and occupational stress, with individual and organizational resources acting as important boundary conditions. The synthesis points to a clear need for longitudinal, sector-specific and context-sensitive research among IT and ITES professionals, particularly in India, where AI adoption is occurring alongside rapid skill transformation and evolving employment structures.

Keywords: Artificial Intelligence, Job Insecurity, Occupational Stress, Technostress, Psychological Well-Being, IT Professionals, ITES, Human–AI Collaboration

1. Introduction

Artificial intelligence is increasingly embedded in organizational systems rather than operating as a separate technical function. In IT and ITES environments, intelligent tools now support software development, service management, customer interaction, data analysis, documentation, cybersecurity, workflow automation and managerial decision-making. The change is therefore not limited to the substitution of isolated tasks. It can alter the sequence of work, the speed at which tasks are expected to be completed, the skills that are valued, and the manner in which employee performance is observed. The organizational promise is substantial, yet the employee experience can be considerably more complex.

The literature on technological change has long recognized that productivity improvements and employee consequences do not necessarily move in the same direction. Earlier work on automation distinguished between the displacement of tasks and the creation of new tasks, suggesting that technological progress may reorganize employment rather than simply eliminate it (Acemoglu & Restrepo, 2019). In the psychological domain, however, the employee responds not only to an actual employment outcome but also to the perceived possibility of future change. Job insecurity is fundamentally concerned with this perceived threat to employment continuity and valued aspects of work (Greenhalgh & Rosenblatt, 1984).

The rapid development of generative AI has made this distinction more important. Employees may retain their formal positions while experiencing uncertainty about whether their present skills will remain valuable, whether performance standards will rise, or whether some responsibilities will gradually be transferred to AI systems. Such uncertainty can become psychologically significant even when immediate redundancy is not expected. Park and Jung (2020), for example, found that perceived AI competence was associated with greater job insecurity and work cynicism, with job insecurity functioning as an important explanatory mechanism.

Occupational stress provides a complementary perspective. Work becomes stressful when demands are perceived as exceeding available coping resources (Lazarus & Folkman, 1984). AI may reduce some demands while introducing others. Automation can remove repetitive work, but employees may simultaneously face faster workflows, continuous learning requirements, new forms of quality control, uncertainty about algorithmic decisions and greater expectations of responsiveness. This combination makes it inappropriate to characterize AI as either inherently beneficial or inherently harmful to psychological well-being.

The IT and ITES sectors deserve particular attention because technology is both the object of work and an increasingly influential component of the work environment. Professionals in these sectors are expected to maintain technical competence while adapting to rapidly changing platforms, tools and service models. The psychological burden may consequently arise from the technology itself, from the pace of change, or from organizational responses to technological change. Malik et al. (2022) identified work overload, job insecurity and complexity among prominent contributors to technostress in organizations experiencing AI adoption.

The purpose of this review is to bring these strands of research together. Rather than treating AI adoption, job insecurity, occupational stress and well-being as independent topics, the review considers how they may operate as interconnected elements of an evolving psychosocial work system. Particular attention is given to evidence from 2020 to 2025, recent developments in human–AI collaboration, and the implications for IT and ITES employees in emerging-economy contexts. The central argument is that

the psychological effects of AI are best understood through the conditions under which AI is introduced, interpreted and experienced by employees.

2. Review Approach and Scope

This article adopts an integrative narrative review approach. The review draws on the author's doctoral bibliography, which contains 126 references across books, journal articles, institutional reports, theses and dissertations, conference material and online sources. Priority was given to peer-reviewed research from 2020 to 2025 that directly addresses AI, automation, job insecurity, technostress, occupational stress, employee well-being, human–AI collaboration and changing work demands. Foundational publications were retained where they provide established definitions or theoretical mechanisms that remain necessary for interpreting recent evidence.

The review is not presented as a statistical meta-analysis because the identified studies differ substantially in design, populations, constructs, measures and analytical strategies. Instead, evidence is compared according to the phenomenon investigated, research design, principal psychological outcome and contribution to the present research problem. This approach allows findings from experimental, survey, qualitative and systematic-review studies to be considered together without implying a level of quantitative comparability that the source literature does not provide.

The emphasis on IT and ITES is deliberate, although evidence from other technology-intensive and service sectors is included where it clarifies mechanisms relevant to IT professionals. This is necessary because direct research on IT/ITES employees remains narrower than the broader literature on workplace AI. The resulting synthesis therefore distinguishes direct sectoral evidence from broader evidence that can reasonably inform the IT/ITES context.

3. Artificial Intelligence and the Changing Nature of Work

AI changes work through several routes. The first is task automation, in which routine and rule-based activities can be executed with limited direct human intervention. The second is augmentation, where AI provides information, prediction, generation or decision support while the employee remains responsible for interpretation and action. The third involves changes in coordination and control, including algorithmic allocation, monitoring and performance evaluation. These mechanisms can coexist within the same organization and even within the same job.

The distinction between replacement and augmentation is important for psychological analysis. A worker who uses AI as a support tool may experience increased capability and reduced effort; a worker who understands AI primarily as a technology capable of performing valued parts of the job may experience threat and reduced occupational control. Zirar et al. (2023) synthesized research on worker–AI coexistence and identified distrust arising from perceived job threat alongside opportunities for augmentation. Their review also emphasized technical, human and conceptual skills and the continuing importance of reskilling and upskilling.

The skill dimension is especially relevant to IT and ITES. AI adoption can reduce the value of some technical routines while increasing the value of system oversight, problem formulation, validation, communication and contextual judgment. This creates a moving target for employees. A skill that is currently regarded as advanced may become routine after automation, while new skills may become necessary with little transition time. Cramarenco et al. (2023), in a systematic review of research published

from 2020 to early 2023, found substantial attention to employees' skills and well-being and highlighted continuing upskilling and reskilling demands as an important issue.

This changing skill environment can influence psychological well-being through more than one pathway. Learning a new tool may be experienced as a challenge that enhances competence, autonomy and employability. The same learning requirement may be experienced as a demand when employees lack time, training, confidence or organizational support. The difference is not simply a property of the AI system. It depends on job design, implementation practices and the resources available to the employee.

The emerging literature therefore supports a socio-technical interpretation. AI is not introduced into an empty workplace; it enters established structures of roles, norms, leadership, performance expectations and employee relationships. Its consequences depend partly on how these structures respond. A human-centered implementation may redistribute routine effort and create space for judgment and creativity, whereas a narrowly productivity-driven implementation may combine automation with intensified targets, surveillance and reduced discretion.

4. AI and Job Insecurity

Job insecurity refers to perceived uncertainty about the continuity or quality of one's employment. Greenhalgh and Rosenblatt (1984) established the concept as a multidimensional perception involving the threat of losing a job and the perceived inability to control that threat. Later work has consistently linked job insecurity with poorer psychological and organizational outcomes. In AI-enabled workplaces, the construct acquires a technological dimension because employees may perceive uncertainty not only from organizational restructuring but also from the capabilities and future diffusion of intelligent systems.

One of the clearest findings in recent research is that perceptions of AI capability can matter even before actual displacement occurs. Park and Jung (2020) found, across studies involving Korean and American workers, that perceived AI competence increased work cynicism through job insecurity. Lingmont and Alexiou (2020) similarly examined awareness of smart technology, AI, robotics and algorithms and showed that the relationship between such awareness and perceived job insecurity is contingent on organizational culture. These findings suggest that psychological responses are shaped by both technological perceptions and organizational context.

Evidence from broader automation research points in the same direction. An empirical study published in 2024 using longitudinal General Social Survey data found that employees in industries with higher automation potential were more susceptible to job insecurity. The study also considered social and relational factors that may influence this relationship. Such evidence is important because it moves the discussion beyond the assumption that job insecurity is generated only by actual layoffs. Perceived exposure to automation can itself become psychologically consequential.

The human–AI collaboration literature further complicates the issue. Collaboration can be framed positively when AI extends human capability, but the same collaboration can generate uncertainty about which responsibilities remain uniquely human. Employees may ask whether the AI is an assistant, an evaluator, a competitor or eventually a replacement. Such ambiguity is particularly relevant where AI can perform parts of knowledge work that employees previously regarded as central to their professional identity.

Career resilience and employability may reduce vulnerability, but they should not be treated as complete solutions. Chung et al. (2025) found that AI awareness was associated with job insecurity and

that job insecurity mediated relationships with task performance and deviant behavior; career resilience moderated the relationship between AI awareness and job insecurity. This indicates that individual resources can change the strength of the psychological response, while also implying that organizational conditions remain important.

Job insecurity may therefore be understood as a psychological bridge between technological change and occupational stress. When employees believe that their role, status, skills or future employability are threatened, uncertainty consumes attention and coping resources. The resulting strain can appear as anxiety, disengagement, reduced commitment, cynicism or a heightened need to protect one's position. This pathway is consistent with both stress appraisal theory and Conservation of Resources theory.

5. AI, Technostress and Occupational Stress

Technostress refers broadly to stress associated with the use, adaptation to or management of technology. Established research identifies technology-related demands such as overload, complexity, uncertainty and insecurity as important sources of strain (Tarafdar et al., 2007; Maier & Laumer, 2015). AI introduces additional characteristics because many AI systems are adaptive, probabilistic and capable of generating outputs that employees must evaluate rather than simply execute.

Malik et al. (2022) provide direct evidence of this complexity. Their qualitative study of professionals across nine industries identified work overload, job insecurity and complexity among prominent technostress creators associated with AI adoption. At the same time, respondents identified flexibility, autonomy, creativity, innovation and improved job performance as positive consequences. The coexistence of positive and negative experiences is important for the present review because it demonstrates that AI-related stress cannot be reduced to a simple technology-versus-worker relationship.

Recent quantitative evidence reinforces this challenge–hindrance distinction. Chang et al. (2024) examined AI-driven technostress using three-wave data from employees in organizations in Guangdong, China. Challenge-related technology stressors were associated with positive affect and greater AI adoption intention, whereas hindrance-related stressors were associated with AI anxiety and lower adoption intention. Technical self-efficacy altered these relationships. The findings suggest that the same technological change may produce different psychological responses depending on how the employee interprets the demand and whether adequate resources are available.

Responsible AI characteristics may also influence employee responses. Verma et al. (2024) examined responsible AI-related stressors among 299 employees who used AI for work-related tasks. Their findings indicate that AI characteristics can function as both challenge and hindrance stressors, producing positive and negative psychological responses and affecting task performance. This strengthens the argument that the quality and governance of AI implementation are psychologically relevant, not merely technical or ethical considerations.

Occupational stress may arise through work intensification even when total working hours do not increase. AI can accelerate information processing and task completion, thereby creating expectations that employees should handle more cases, respond more rapidly or achieve higher output. Cognitive demands may also increase because employees must monitor AI outputs, detect errors, verify generated information and make decisions about when not to rely on the system. In IT services, where accuracy, uptime and client responsiveness are already central performance requirements, these additional demands can become significant.

Surveillance and algorithmic management provide another pathway. Kellogg et al. (2020) describe algorithmic technologies as a new terrain of organizational control, illustrating how data-driven systems can change the relationship between workers and managerial authority. When employees perceive monitoring as excessive, opaque or uncontestable, the technology may reduce perceived autonomy and increase strain. Thus, the psychological effect of AI may be produced indirectly through changes in control, accountability and performance evaluation.

6. AI and Employee Psychological Well-Being

Psychological well-being in the workplace extends beyond the absence of stress. It includes the capacity to function effectively, experience positive psychological states, maintain meaningful relationships and perceive sufficient control and support in one's work. AI can influence these dimensions in opposite directions. By reducing repetitive tasks, improving access to information and supporting decision-making, it can remove some sources of frustration. By changing roles and introducing uncertainty, it can also threaten competence, autonomy and security.

Bhargava et al. (2021) explored employees' perceptions of robotics, AI and automation in relation to job satisfaction, job security and employability. Their qualitative findings indicated that human-centered capabilities and soft skills remained important, while employees could experience a dilemma in evaluating the technology as either an opportunity or a threat. The study also emphasized the need for organizations to prepare employees before and after technological change.

The systematic literature reviewed by Cramarenco et al. (2023) similarly identified both professional and personal dimensions of AI-related change. The review emphasized the importance of skill adaptation and noted that the well-being consequences of skill mismatch and continuous reskilling deserve further development. These findings are especially relevant to IT professionals because technical competence is closely tied to employability, and perceived obsolescence can therefore become a direct psychological concern.

A more recent systematic review by García-Madurga and Gil-Lacruz (2024) mapped applications of AI specifically intended to support workplace well-being, including mental-health monitoring, emotional support, personalized well-being interventions, identification of psychosocial risk factors and training. This strand of research illustrates an important paradox. AI can itself create psychosocial risks while also becoming part of the organizational response to those risks. Such duality requires careful attention to privacy, transparency, employee consent and human oversight.

Valtonen et al. (2025) provide particularly useful evidence because their study did not find a direct effect of AI adoption on employee well-being. Instead, AI influenced well-being indirectly through work-related factors including task optimization and safety. This finding cautions against deterministic claims that AI adoption automatically harms or improves well-being. The effect appears to depend on what AI changes in the employee's actual work environment.

The negative pathway remains important. Wang and Zhou (2025), studying university teachers, found that AI awareness positively predicted job burnout, while perceived organizational support and organizational commitment were negatively associated with burnout; both variables mediated the relationship. Although the population differs from IT and ITES employees, the study adds evidence that AI awareness can become psychologically burdensome and that organizational resources may buffer adverse outcomes.

Taken together, the literature supports a conditional model of well-being. AI becomes more likely to function as a resource when it improves task design, strengthens safety, supports learning and increases employee capability. It becomes more likely to function as a demand when it is accompanied by role ambiguity, job threat, work intensification, inadequate training, low autonomy or opaque monitoring. Psychological well-being is therefore an outcome of the wider implementation system rather than a simple consequence of technology exposure.

7. Theoretical Perspectives

7.1 Job Demands–Resources Model

The Job Demands–Resources (JD–R) model provides a useful framework for explaining why AI can have divergent consequences. Job demands require sustained physical or psychological effort and can contribute to exhaustion when they remain high. Job resources support goal attainment, learning, motivation and recovery (Bakker & Demerouti, 2007, 2017). In an AI-enabled workplace, technological complexity, rapid change, monitoring, increased performance expectations and skill-upgrading requirements can operate as demands, whereas AI support, training, autonomy, supervisor support and access to adequate resources can function as resources.

The JD–R perspective also helps explain why AI adoption alone is an insufficient predictor of psychological outcomes. Two employees may use the same AI system but experience different levels of strain because their workloads, autonomy, technical confidence, training access and organizational support differ. The framework consequently encourages research that measures both the demands created by AI and the resources that accompany its introduction.

7.2 Conservation of Resources Theory

Conservation of Resources theory proposes that stress occurs when valued resources are threatened, lost or insufficiently replenished (Hobfoll, 1989). Employment continuity, professional competence, status, time, energy and psychological security can all be viewed as resources. AI-related job insecurity becomes particularly significant within this framework because the employee perceives a possible future loss before an actual loss occurs. Continuous skill requirements can also consume time and energy while employees attempt to protect employability.

The theory suggests a cumulative process. A worker who is uncertain about job continuity may devote additional effort to learning new tools, working longer or demonstrating performance. If organizational support is inadequate, this effort can reduce remaining psychological resources and increase exhaustion. Conversely, training, career support, transparent communication and opportunities to participate in AI implementation can create resource gains that interrupt the stress process.

7.3 Transactional Stress and Appraisal

Lazarus and Folkman's (1984) transactional perspective emphasizes appraisal. Employees do not respond to an event solely because it exists; they evaluate whether it is threatening, challenging or manageable. This is particularly relevant to AI because the technology is interpreted through personal experience and organizational messaging. An employee who sees generative AI as a productivity assistant may experience learning as a challenge, while another who receives no training and observes role reductions may interpret the same technology as a threat.

This perspective helps reconcile apparently contradictory findings. AI may increase pressure for some employees and reduce pressure for others. The difference can arise from appraisal, perceived control and coping resources. Future research should therefore measure perceptions of AI, not only frequency of AI use.

7.4 Self-Determination and Psychological Needs

Self-Determination Theory identifies autonomy, competence and relatedness as central psychological needs (Ryan & Deci, 2000). AI implementation can support competence by assisting employees with difficult tasks, but it may also weaken competence when employees believe that their expertise is becoming unnecessary. Algorithmic monitoring may reduce autonomy, while remote and technology-mediated work can influence relatedness. This perspective provides a useful bridge between technological design and employee well-being because it explains why the same efficiency gain may be psychologically beneficial or harmful depending on how work is experienced.

8. Synthesis of Recent Evidence, 2020–2025

The selected evidence demonstrates a gradual movement in the literature from broad questions about technological displacement toward more differentiated explanations of employee experience. Early studies emphasized perceived competence, job security and employability. Subsequent research expanded the discussion to technostress, human–AI coexistence, organizational control and well-being. By 2024 and 2025, studies increasingly examined mediators and moderators, indicating that the field is moving from the question of whether AI affects employees toward the more useful question of how, when and for whom it does so.

Study	Design Context /	AI-related factor	Psychological outcome	Key contribution	Limitation / gap
Park & Jung (2020)	Experimental studies; Korea and USA	Perceived AI competence	Job insecurity; work cynicism	Perceived AI competence increased job insecurity and cynicism; job insecurity explained part of the relationship.	Non-IT samples and experimental framing limit direct sectoral generalization.
Lingmont & Alexiou (2020)	Empirical study; automation-prone industries	STARA awareness	Perceived job insecurity	AI/automation awareness was associated with perceived job insecurity; organizational culture conditioned the relationship.	Context and organizational culture require further sector-specific examination.
Bhargava et al. (2021)	Qualitative; 21 working adults	Robotics, AI and automation	Job security; satisfaction; employability	Employees described opportunity and	Small qualitative

				threat simultaneously; human and soft skills remained important.	sample; mixed occupations.
Malik et al. (2022)	Qualitative; 32 professionals, nine industries	AI adoption	Technostress; job risk; overload; complexity	AI generated both positive work outcomes and stressors including overload, complexity and insecurity.	Cross-industry evidence; limited longitudinal evidence.
Cramarenco et al. (2023)	Systematic review; 2020–2023 literature	AI and technological change	Skills; employee well-being	Upskilling/reskilling and skill mismatch emerged as important professional and well-being issues.	Heterogeneity across reviewed studies makes sector-specific conclusions difficult.
Zirar et al. (2023)	Systematic review	Workplace AI and worker coexistence	Trust; skills; reskilling	Worker distrust can arise from perceived job threat; technical, human and conceptual skills support coexistence.	Further evidence needed on culture, task allocation and phases of AI adoption.
García-Madurga & Gil-Lacruz (2024)	Systematic review; 31 studies	AI for workplace well-being	Mental health; psychosocial risk; support	AI is being applied to monitoring, emotional support, risk identification and well-being programs.	Rapidly developing field; governance and privacy remain important concerns.
Chang et al. (2024)	Three-wave quantitative; 301 employees	AI-driven technostress	AI anxiety; adoption intention	Challenge stressors related to positive affect; hindrance stressors related to AI anxiety; technical self-efficacy moderated effects.	Chinese organizational context; adoption intention rather than long-term well-being.

Kim et al. (2024)	Empirical; digital workplace	AI-induced job insecurity	Psychological contract; employee behavior	AI-related insecurity can operate through perceived psychological contract breach; ethical leadership is relevant to the relationship.	Outcome focus differs from occupational stress and well-being.
Verma et al. (2024)	Quantitative; 299 AI users	Responsible AI characteristics	Psychological responses; work exhaustion; task performance	Responsible AI characteristics can function as both challenge and hindrance stressors.	Responsible-AI context needs replication in IT/ITES.
Gupta & Banerjee (2025)	Quantitative; 395 Indian IT/ITES professionals	AI anxiety	Technostress; quiet quitting	AI anxiety was linked with quiet-quitting pathways, with technostress and tech-savviness shaping the relationship.	Focuses on withdrawal behavior; broader psychological well-being requires further investigation.
Wang & Zhou (2025)	Quantitative; 434 university teachers	AI awareness	Job burnout	AI awareness positively predicted burnout; organizational support and commitment reduced adverse effects and mediated the relationship.	Higher education sample limits direct transfer to IT/ITES.
Chung et al. (2025)	Three-wave survey; South Korean office employees	AI awareness	Job insecurity; performance; deviant behavior	Job insecurity mediated AI awareness relationships; career resilience moderated AI awareness and insecurity.	General office sample; occupational stress was not the central outcome.
Valtonen et al. (2025)	Survey; 207 firms	AI adoption	Employee well-being	AI adoption did not directly affect well-being; effects operated through	Mostly medium-sized firms; context differs from

				task optimization and safety.	Indian IT/ITES.
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9. Critical Synthesis: What the Literature Tells Us

The evidence does not support a single-direction relationship between AI and employee psychological well-being. Instead, three broad patterns are visible. First, perceived threat matters. Studies of AI competence, automation potential and AI awareness indicate that employees may experience job insecurity when they believe intelligent technologies can perform tasks associated with their roles. Second, the work environment mediates the effect. AI can remove routine effort while increasing cognitive demands, pace and monitoring. Third, resources matter. Career resilience, technical self-efficacy, organizational support, responsible implementation and opportunities for learning can change the employee response.

A particularly important observation is the distinction between actual AI exposure and perceived AI threat. Measuring only the number of AI tools used by an employee may fail to capture the psychological meaning of that use. An employee can use AI frequently without feeling insecure if the technology is experienced as supportive and if the employee retains control over decisions. Conversely, limited exposure may generate substantial insecurity when organizational communication emphasizes automation, restructuring or cost reduction. Future empirical models should therefore include both behavioral exposure and psychological perception.

The literature also suggests that work pressure deserves greater attention as an intermediate mechanism. Much of the AI literature examines job insecurity, burnout, adoption intention or performance independently. Yet employees frequently experience these outcomes through changes in daily work demands. AI may increase the amount of work that can be processed, reduce the time available for completion, or create expectations of continuous availability. The resulting work pressure may interact with job insecurity, creating a compound stress process rather than two independent effects.

Another underdeveloped area is the role of occupational identity. IT professionals often build career identity around technical expertise, problem-solving and specialized knowledge. When AI begins to perform parts of these activities, the issue is not simply whether a job remains available. Employees may question the future value of their expertise and the meaning of their professional contribution. Such identity-related processes can strengthen the relationship between technological change and insecurity and deserve greater attention in organizational psychology research.

The Indian context is particularly important. The bibliography supporting the present doctoral research contains studies and institutional reports focused on Indian technology workforces, occupational stress, workplace psychology and changing skill requirements. Yet the available evidence remains fragmented across topics. A study may address occupational stress without AI exposure, another may address AI anxiety without work pressure, another may focus on productivity or adoption rather than psychological well-being. The resulting gap is not an absence of literature, but an absence of sufficient integration.

This fragmentation creates a strong rationale for sector-specific research. IT and ITES employees operate in environments where AI adoption, client expectations, skill obsolescence, service-level requirements and technology-mediated work are tightly connected. Research that examines these variables

together can provide a more realistic account of employee experience than studies that isolate a single psychological outcome.

10. Proposed Integrative Framework

Based on the reviewed evidence, the present article proposes an integrative framework for understanding psychological responses to AI in IT and ITES workplaces. AI exposure and AI-related perceptions form the starting conditions. These may include perceived AI capability, automation potential, AI anxiety, frequency of use and perceptions of replacement or augmentation. These conditions can alter work demands such as cognitive load, work pressure, technological complexity, learning requirements and monitoring intensity.

Job insecurity is positioned as a central psychological mechanism because it captures the employee's appraisal of threatened employment continuity, valued job characteristics and future employability. Occupational stress represents the broader strain response that may emerge when demands and uncertainty consume coping resources. Psychological well-being is treated as a broader outcome that can include burnout, satisfaction, engagement, emotional strain and perceived work-life quality.

The framework also places resources around this pathway. Technical self-efficacy, career resilience, organizational support, training, transparent communication, autonomy, participatory implementation and responsible AI practices may reduce the strength of adverse relationships. This approach is consistent with JD–R, Conservation of Resources, transactional stress appraisal and self-determination perspectives. It also allows future research to test whether job insecurity mediates the relationship between AI-related factors and occupational stress, rather than assuming that AI produces stress directly.

AI-related conditions	Workplace demands	Psychological mechanism	Stress / strain	Well-being outcomes
AI use AI awareness Perceived AI capability Automation potential Replacement vs augmentation	Work pressure Cognitive load Complexity Continuous upskilling Monitoring / reduced autonomy	Job insecurity Threat appraisal Employability uncertainty Loss of control	Occupational stress Technostress Emotional exhaustion Anxiety	Burnout Job satisfaction Engagement Psychological well-being Work-life outcomes
↓	↓	↓	↓	↓
Organizational resources	Individual resources	Protective conditions	Implementation quality	Context
Training and support	Technical self-efficacy Career resilience	Autonomy Participation Psychological safety	Responsible AI Transparency Human oversight	IT/ITES sector Organizational culture Country / labour-market context

Figure 1. Proposed integrative framework linking AI-related conditions, work demands, job insecurity, occupational stress and psychological well-being.

11. Research Gaps and Future Directions

11.1 Integrated models

The strongest gap is conceptual integration. AI adoption, work pressure, job insecurity and occupational stress are often examined separately, although they can occur together within the same employee experience. Future studies should test integrated models that distinguish direct effects from indirect effects and identify the psychological mechanisms through which AI becomes stressful.

11.2 Longitudinal evidence

Cross-sectional designs dominate much of the available literature. Such designs are useful for identifying associations but cannot adequately capture adaptation. Employees may experience high uncertainty immediately after AI implementation and lower stress after training and role clarification, or the reverse if implementation gradually increases performance pressure. Longitudinal research is therefore needed to examine how psychological responses change across stages of AI adoption.

11.3 IT and ITES-specific evidence

The literature includes technology-intensive workers, but direct evidence from IT and ITES remains less developed than the general workplace literature. The Indian IT/ITES sector offers a particularly relevant setting because employees routinely encounter rapid technology cycles, global service delivery, skill certification requirements and performance-based service environments. Sector-specific studies can identify stressors that are not visible in aggregated samples.

11.4 Indian and emerging-economy contexts

Much of the strongest theoretical and empirical literature originates outside India. Cultural expectations, labour-market conditions, employment structures, organizational hierarchy and access to reskilling may shape how AI is interpreted by Indian employees. Research in emerging economies should therefore not simply replicate models developed elsewhere; it should test whether the same mechanisms operate with similar strength and whether additional contextual factors are required.

11.5 Measurement refinement

AI use should not be treated as a single undifferentiated variable. Future studies should distinguish frequency of use, type of AI, degree of autonomy, replacement potential, employee involvement in implementation and perceived reliability. Psychological measures should similarly distinguish job insecurity, occupational stress, technostress, AI anxiety and burnout rather than combining them into a single measure of negative well-being.

11.6 Individual and organizational moderators

Recent evidence highlights technical self-efficacy and career resilience, while organizational support, leadership and culture appear equally important. Future models should examine whether these factors operate independently or interactively. It would also be valuable to examine career stage, tenure, role type and prior technological experience because the meaning of AI adoption may differ for junior employees, experienced specialists and managers.

11.7 Human-centered AI implementation

The practical question is not whether organizations should adopt AI, but how they can do so without transferring technological efficiency gains into unrecognized psychological costs. Participatory implementation, transparent communication, meaningful training, realistic performance expectations, employee consultation and human oversight should be examined as organizational resources. Future intervention research should move beyond generic wellness programs and evaluate whether changes in work design actually reduce insecurity and stress.

12. Implications for Organizations and IT/ITES Management

Organizations introducing AI should assess psychosocial consequences alongside technical readiness. Employees need clear information about what the technology is intended to accomplish, which tasks will change, how performance will be evaluated and what opportunities for redeployment or development will be available. Uncertainty is likely to be more stressful when employees must infer organizational intentions from informal communication.

Training should also be treated as a psychological resource rather than only a technical requirement. Employees are more likely to interpret AI-related learning as manageable when time, access and support are provided. Training should cover not only tool operation but also verification of AI outputs, responsible use, data protection, escalation procedures and judgment about when human intervention is necessary.

Management should avoid measuring AI success solely through productivity gains. Indicators of work pressure, employee turnover intention, exhaustion, job satisfaction and perceived job security can provide an early warning of implementation problems. This is consistent with the recent evidence that AI adoption may affect well-being indirectly through the way tasks and working conditions are redesigned.

Finally, organizations should preserve meaningful human responsibility. AI systems can support decisions, but employees should retain appropriate opportunities for judgment, explanation and escalation. Where AI is used for monitoring or evaluation, transparency and procedural fairness become particularly important. A human-centered approach is not opposed to automation; rather, it seeks to ensure that technological capability is matched with sustainable work design.

13. Limitations of the Present Review

This review has several limitations. First, it is an integrative narrative review rather than a registered systematic review or meta-analysis, and therefore it does not claim exhaustive retrieval of every publication in the field. Second, the underlying studies vary considerably in methods, sectors, countries and outcome measures. Third, several recent publications are still emerging, meaning that the evidence base is changing rapidly. Finally, the review places particular emphasis on job insecurity, occupational stress and well-being and therefore does not cover every consequence of workplace AI, such as wage inequality, organizational productivity or broader labour-market displacement.

These limitations do not weaken the relevance of the synthesis; instead, they clarify why stronger empirical work is required. The diversity of findings itself indicates that AI should not be treated as a single uniform occupational exposure. Future research can improve precision by examining the specific technologies, tasks, implementation practices and psychological processes involved.

14. Conclusion

Artificial intelligence is altering the psychological conditions under which work is performed. The evidence reviewed in this article shows that AI can improve efficiency, support employees and reduce routine effort, but it can also introduce job insecurity, work intensification, cognitive demands, technostress and anxiety. These effects are neither automatic nor uniform. They depend on how employees interpret AI, how work is redesigned, what resources are provided and how organizations manage the transition.

Job insecurity emerges as a particularly important construct because it connects technological change with the employee's perception of future employment continuity and professional relevance. Occupational stress can then develop when uncertainty and new demands exceed available coping resources. Recent research also demonstrates the importance of protective conditions such as career resilience, technical self-efficacy, organizational support, responsible AI characteristics and task optimization.

The central implication for organizational psychology is that the human consequences of AI cannot be understood through employment displacement statistics alone. Psychological responses develop within everyday work experiences. For IT and ITES professionals, these experiences include changing technical requirements, performance expectations, cognitive demands and uncertainty about the future value of their skills. A research model that integrates AI exposure, work pressure, job insecurity and occupational stress can therefore provide a more complete account of employee well-being.

The literature points to a clear agenda for future research, particularly in India and other emerging technology economies. Longitudinal sector-specific studies, validated measures and integrated theoretical models are needed to identify when AI functions as a resource and when it becomes a psychosocial demand. Such evidence can help organizations move from reactive responses to proactive, human-centered AI implementation. Technological progress is more sustainable when employee psychological well-being is treated not as a secondary concern, but as a central condition of successful work transformation.

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Author Note

This manuscript is a literature-based review developed in relation to the doctoral research area “Influence of Artificial Intelligence, Job Insecurity, and Occupational Stress among IT Professionals.” The author's broader research profile is in IT infrastructure and service delivery and the present review is intended to support further empirical investigation of psychological responses to AI-enabled work environments.