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Reframing Stress Management in Digitized Workplaces: The Mediating Role of AI-Enabled Ease of Use

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Abstract

The rise of AI technologies in high-pressure industrial settings presents both opportunities and psychological challenges for employee stress management. This conceptual paper extends the Transactional Model of Stress and Coping (TMSC) by introducing AI-enabled ease of use (AI-EoU) as a dynamic, psychologically meaningful resource in the secondary appraisal process. Rather than viewing ease of use as a static technical attribute, the study reframes AI-EoU as a cognitive lens that shapes how individuals interpret, evaluate, and respond to work-related stressors in digitized environments. Drawing on evidence from the manufacturing sector in Shandong, China, the proposed framework positions AI-EoU as a mediator linking cognitive appraisal, emotional regulation, behavioral coping strategies, workload perception, and stress outcomes. By visualizing this mechanism and suggesting measurement pathways, the model offers a theoretical foundation for future empirical validation through structural equation modeling. It also provides practical insights into the design of user-centered AI systems that promote adaptive coping and workplace well-being in increasingly intelligent work settings.

Keywords: AI-Enabled Ease Of Use, Stress Management, Psychological Mediation, Individual And Work-Related Predictors, Human-Ai Interaction

Introduction

Work-related stress poses a critical and escalating challenge in Industry 4.0 manufacturing, where the transformative potential of artificial intelligence (AI) presents a paradox: its promise for efficiency coexists with poorly understood impacts on stress coping mechanisms (Hu & Fan., 2024; Liu., 2024). This disconnect between technological

advancement and human well-being underscores an urgent imperative to reconceptualize stress management paradigms for digitally infused workplaces (ILO, 2023; WHO, 2022).

Manufacturing Stress Management Crisis in Shandong: Technological Transformation and Human Cost

China's electronics manufacturing sector, epitomized by Shandong Province's industrial dominance, contributing 12.3% to provincial industrial revenue (Shandong Bureau of Statistics., 2022), faces a critical paradox: while driving 30% annual growth in equipment manufacturing value-added output (Jinan Municipal Bureau of Statistics, 2024), 72% of workers endure chronic sleep deprivation due to Just-in-Time production schedules (China Labour Watch, 2023). Compounding this, 60% of employees report moderate-to-high work stress levels, linking directly to productivity losses exceeding $1 trillion globally (WHO, 2020; Shandong University, 2021). To better understand the stress management challenges in Shandong's manufacturing sector, table 1.1 summarizes key stress indicators and their direct implications for workforce stress management, highlighting areas where AI solutions could play a crucial role in mitigating these stressors.

Table 1.1
Stress Indicators and Their Impact on Stress Management

Indicator	Value	Source	Significance
Chronic Sleep Deprivation	72% of workers	China Labour Watch (2023)	Linked to Just-in-Time production schedules, leading to increased stress and poor mental health outcomes.
Moderate-to-High Work Stress	60% of employees	WHO (2020); Shandong Univ (2021)	Contributes to a significant portion of workforce burnout, impacting coping strategies and productivity.
Industrial Revenue Contribution	12.30%	Shandong Bureau of Statistics (2022)	Economic pressures exacerbate work stress, requiring AI solutions to alleviate the burden on workers.
Annual Growth Rate	30%	Jinan Bureau of Statistics (2024)	High growth in output correlates with heightened work demands, necessitating more effective stress management.
Digital Literacy Gap	52% with ≤ junior high education	National Bureau of Stats (2020)	Lack of digital skills increases stress due to difficulty adapting to AI tools and slows stress intervention adoption.

These critical stress indicators highlight the need for AI-enabled interventions. AI tools, such as fatigue monitoring systems and adaptive workload redistribution, could play a crucial role in alleviating stress and improving productivity. However, the effectiveness of these interventions depends heavily on perceived ease of use, particularly for low-literacy workers. Addressing the digital literacy gap is essential for the successful adoption of AI solutions in stress management.

This crisis highlights the urgent need to reconceptualize stress management in the context of Industry 4.0, where AI-enabled tools promise effective intervention but are hindered by significant workforce digital literacy gaps. In Shandong, 52% of the workforce has only a junior high school education (National Bureau of Statistics of China, 2020), which limits their ability to fully adapt to AI tools and exacerbates stress. Addressing this gap through research that explores how AI tools can aid in stress management could provide a critical framework for improving both well-being and productivity in these settings.

Theoretical Gap: TMSC's Blind Spot in Technological Mediation

The Transactional Model of Stress and Coping (TMSC), while a foundational framework for understanding cognitive appraisal (Lazarus & Folkman, 1984), has traditionally overlooked technology-mediated resources for coping. This theoretical gap becomes particularly evident in the context of AI-enabled work environments, where tools like AI interfaces directly impact stress responses and coping behaviors. By integrating AI-enabled ease of use as a psychological resource within TMSC, this study seeks to extend the model to better reflect the role of technology in shaping employees' stress management strategies.

Original formulations conceptualized coping as purely psychological or behavioral (e.g., reappraisal, problem-solving), overlooking how AI-enabled ease of use (hereafter referred to as AI usability perception) reshapes stress adaptation pathways (Lazarus, 1991; Hu et al., 2024). Consequently, existing models cannot explain why identical stressors yield divergent outcomes in AI-integrated workflows, such as why workers with high technology self-efficacy leverage wearables for stress regulation, while others perceive them as surveillance tools exacerbating anxiety (Tarafdar et al., 2015; Yan et al., 2022). This theoretical blind spot is acute in China's hierarchical manufacturing culture, where "face" (mianzi) norms suppress help-seeking and amplify technostress (Hu et al., 2024).

Model Proposition: A Cognitive-Coping Chain Model within the TMSC Framework

This study addresses the gap in existing research by reconceptualizing AI-enabled ease of use (AI-EoU) as a dynamic secondary appraisal resource. AI-EoU was positioned as a significant psychological resource influencing employees' stress coping mechanisms, particularly in the context of the digital transformation of the manufacturing sector in Shandong Province. The study argues that the ease of use of AI tools not only improves employees' work experiences but also plays a crucial role in alleviating cognitive load and operational anxiety.

Specifically, prior research has shown that for employees especially with the low-literacy users, adopting intuitive visual interfaces can significantly reduce task completion time, thus decreasing cognitive load and operational anxiety(Kodagoda et al., 2012). For enterprises, enhancing AI-EoU reduces error rates by improving automation, especially in repetitive tasks(Dash, 2024; FasterCapital, 2025). Studies also suggest that optimizing AI tools enhances work efficiency and productivity, improving overall organizational performance(Justin Bachman., 2024). These findings also provide valuable insights for policymakers in designing "stress-aware AI" tools to inform labor protection policies.

This study proposes an extended cognitive-coping chain model grounded exclusively in the Transactional Model of Stress and Coping (TMSC) (Lazarus & Folkman, 1984), with the

aim of recontextualizing how modern digital environments, particularly AI-enabled interfaces, influence stress responses in manufacturing settings (Hu et al., 2024; Wan et al., 2020).

Within this framework, AI-enabled ease of use is conceptualized not as a separate construct from technology acceptance theories (Davis, 1989), but rather as a novel form of secondary appraisal resource within TMSC (Graham, 2015; de Cordova et al., 2024). Specifically, we argue that employees perceive the usability and friction level of AI tools as part of their ongoing evaluation of personal coping capacity (i.e., "Can I handle this?") (Peacock & Wong, 1990; Lazarus, 1991). When AI interfaces offer clear, responsive, and low-effort interactions, such as real-time workload feedback, automated scheduling, or adaptive alerts, they can effectively reduce perceived threat and uncontrollability, thereby facilitating more adaptive coping behavior (Iwanaga et al., 2023; Wan et al., 2020).

This reconceptualization allows the TMSC framework to address a previously overlooked domain: how digitally mediated affordances influence the appraisal-coping-outcome chain in high-pressure work environments (Graham, 2015). Rather than treating technology as an external confounder, we treat AI-enabled ease of use perception as an internalized psychological mediator within the stress-response process (de Cordova et al., 2024; Iwanaga et al., 2024).

Research Questions

Guided by this extended TMSC framework, we seek to answer the following questions:

RQ1: How do cognitive stress appraisal (CSA), emotional regulation (ER), behavioral coping strategies (BCS), and workload perception (WP) interact with AI-enabled ease of use to shape stress management outcomes in AI-mediated work environments?

RQ2: What is the theoretical mechanism by which AI-enabled ease of use mediates the effects of cognitive stress appraisal, emotional regulation, behavioral coping strategies, and workload perception on stress management in AI-mediated work environments?

These questions will help identify how AI tools can be designed to support employees' coping mechanisms, thereby enhancing well-being and productivity in digital workspaces.

Theoretical Foundation

Effective reconceptualisation of workplace stress management in AI-mediated environments necessitates anchoring in robust psychological theory. The Transactional Model of Stress and Coping (TMSC) offers a foundational framework for analyzing the cognitive-appraisal pathways disrupted by technological mediation (Hu et al., 2024). This section formalises TMSC's core mechanisms, operationalises critical predictors within its paradigm, and repositions AI-enabled ease of use as a novel secondary appraisal resource.

Transactional Model of Stress and Coping (TMSC): Appraisal-Coping Nexus

Lazarus and Folkman's Transactional Model of Stress and Coping (TMSC) (1984) serves as the core theoretical framework for understanding the stress and coping process (Yuan et al., 2024). The model conceptualizes stress as the product of ongoing interactions between the individual and the environment, with a particular focus on how individuals appraise their coping resources in relation to external stressors (Laubmeier et al., 2004). In TMSC, the formation of stress occurs through three key stages: primary appraisal, secondary appraisal, and coping behavior. As depicted in Figure 2.1, this core mechanism involves:

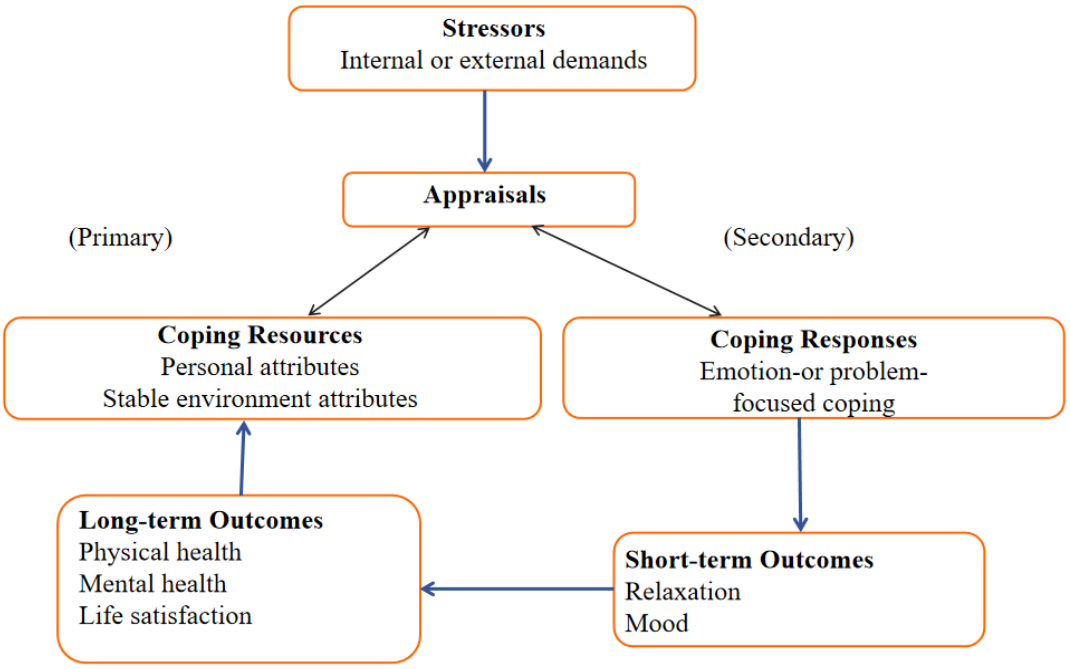

Figure 2.1 Transactional Model of Stress and Coping(Lazarus & Folkman, 1984)

Graham (2015) claimed that primary appraisal refers to the individual's judgment of whether an event is important, threatening, or irrelevant. When an event is appraised as a threat or challenge, the individual enters the secondary appraisal stage, where they assess their ability to cope with the stressor and the available coping resources (Goh et al., 2010). If individuals perceive themselves as lacking the necessary resources to cope, stress responses may occur, leading to emotional or behavioral coping responses (de Cordova et al., 2024). Coping behaviors include strategies such as cognitive reappraisal and problem-solving, aimed at modifying the individual's relationship with the stressor. Coping is not a fixed personality trait but a dynamic, context-dependent process, which allows TMSC to explain how individuals adapt to stress in varying contexts (Lazarus, 1991).

The core characteristic of this process is its dynamic and cyclical nature, where the choice of coping strategies influences subsequent cognitive appraisals and emotional responses (Zisopoulou & Varvogli., 2022), forming a continuous cycle of stress management. In high-pressure work environments, such as in manufacturing, stressors like machine-paced workloads can trigger distinct cognitive-emotional responses. Therefore, TMSC provides a robust framework for analyzing the stress management process (Murphy., 1996; Linden., 2004).

Definition of Predictive Variables

Building on TMSC's appraisal-coping framework, this study examines four key predictors operationalized as follows:

Cognitive Stress Appraisal (CSA) is a crucial evaluative process in the context of the transactional model of stress and coping (Tungtong et al., 2023). It represents an individual's evaluation of a stressor concerning perceived demands, controllability, and the availability of coping resources (Dong et al., 2023). This multidimensional assessment informs whether the individual believes the stressor can be effectively managed or not. CSA encompasses both

primary and secondary appraisals, where primary appraisal assesses the significance of the stressor as a threat, challenge, or irrelevant factor, while secondary appraisal reflects an individual's assessment of their capability to handle the stressor and the resources available for coping (Castro et al., 2022; Hulin et al., 2024; Korbmacher et la., 2020). In this study, CSA refers specifically to secondary appraisal, which directly influences stress management outcomes.

Emotional Regulation (ER) refers to the processes by which individuals consciously or unconsciously monitor, evaluate, and modify emotional experiences to align with personal goals and situational demands (McRae & Gross., 2020). It plays a central role in stress adaptation and interpersonal functioning. Adaptive strategies such as cognitive reappraisal and acceptance are linked to greater psychological resilience and lower stress, anxiety, and depression (Wadley et al., 2020; Wang et al., 2022), while maladaptive strategies like suppression or rumination exacerbate psychological distress (Aldao et al., 2014). ER difficulties are recognized as transdiagnostic risk factors across various mental health disorders (Brothers et al., 2022). Recently, AI-assisted interventions, such as emotion-aware scheduling or real-time reappraisal prompts, have shown potential in enhancing ER under high workload conditions (Iwanaga et al., 2023; Wan et al., 2020), highlighting ER as both a personal capacity and a technologically augmentable process.

Behavioral coping strategies (BCS) refer to the range of actions individuals take to manage stress, including active problem-solving, seeking social support, and engaging in positive activities (Boo & Wicherts., 2009**;** Vyskočilová et al., 2016**)**. Research consistently links adaptive coping, such as planning, cognitive engagement, and instrumental support, to enhanced resilience and reduced psychological distress, while avoidant strategies like denial, disengagement, and self-blame correlate with anxiety, depression, and poor mental health (Compas et al., 2001). These strategies are modifiable through interventions such as cognitive-behavioral therapy, which reduce maladaptive patterns and promote effective coping (Ottenbreit & Dobson., 2004). Additionally, behaviors like regular exercise, leisure, and maintaining social ties buffer stress and support emotional well-being (Horwitz et al., 2011). Fostering constructive behavioral coping is therefore essential to effective stress management.

Wordload Perception (WP): refers to an individual's cognitive evaluation of whether they have sufficient internal resources (Macdonald., 2003), such as time, energy, or ability to meet current task demands, especially in high-pressure environments. Within the TMSC (Lazarus & Folkman, 1984), it functions as a form of secondary appraisal, influencing whether a situation is perceived as manageable or overwhelming (Sumiyati et al., 2021; Inegbedion et al., 2020). In this study, workload perception is conceptualized as a work-related predictor that influences stress management by shaping individuals' perceived controllability and coping capacity in technology-mediated contexts (Gangga., 2023).

Perception of AI-Enabled Ease of Use

In the context of this study, AI-enabled ease of use refers to an individual's perception that AI-based tools, such as adaptive scheduling systems(Mokhtar et al., 2023), wearable biofeedback, or voice-guided relaxation interfaces, are intuitive, minimally effortful, and seamlessly integrable into daily work routines (Parasuraman & Colby 2015; Mohd Tanos et

al., 2024). This construct is adapted from the original "perceived ease of use" concept proposed by Davis (1989), which defined it as "the degree to which a person believes that using a system would be free of effort"(Shamsuddin et al., 2023).

Functioning as the mediating variable in this study, Lam et al (2008) claimed that AI-enabled ease of use is not merely a technology acceptance factor but is reconceptualized within the TMSC as a secondary appraisal resource. In this revised framework, it represents a psychological judgment about the accessibility and cognitive cost of using AI tools to manage stressors (Lopes et al., 2024), thereby influencing individuals' perceived coping capacity and behavioral strategy selection.

Empirical studies support this view: While Chen & Aklikokou. (2020) and Ab. Halim et al.(2022) contented AI systems perceived as easy to use can reduce cognitive load, mitigate technostress, and enhance the adoption of stress management behaviors. Li & Liu. (2020) claimed in high-pressure environments such as manufacturing, the intuitiveness of AI interfaces becomes critical in transforming stress appraisal into effective coping, (Ji Sheng et al., 2023) also agreed with this opinion. When employees perceive AI interventions as cognitively light and reliable, they are more likely to engage with them proactively(Chung et al., 2022; Sarkam et al., 2022) thereby improving stress management outcomes while avoiding resistance or emotional exhaustion (Aduen et al., 2024).

Thus, AI-enabled ease of use serves a dual function: (1) as a technological mediator that facilitates the conversion of stress appraisal into action, and (2) as a psychological lens through which the utility of digital coping tools is evaluated.

Distinguishing AI-enabled Ease of Use from Classic PEOU

Theoretical Divergence: Static vs. Dynamic Appraisal

The Technology Acceptance Model (TAM) conceptualizes Perceived Ease of Use (PEOU) as a stable, pre-adoption belief (Davis, 1989). However, this conceptualization limits its applicability in stress-laden contexts, where stress can significantly alter users' perceptions. In contrast, the Transactional Model of Stress and Coping (TMSC) asserts that stress dynamically reconfigures cognitive appraisals during secondary evaluation (Lazarus & Folkman, 1984). This divergence is particularly evident in high-pressure environments such as manufacturing, where cortisol spikes during crises transform intuitive interfaces into cognitive burdens(Mardhiah et al., 2022). Furthermore, heightened anxiety during equipment failures can significantly depress initial PEOU judgments, indicating that PEOU's predictive value weakens under stress (Hu et al., 2024).

TMSC's Reframing of AI-Enabled ease of Use

TMSC reframes usability as a context-sensitive construct, emphasizing the role of controllability and threat perception in shaping user responses. Unlike PEOU, which remains static, TMSC suggests that usability is continuously assessed in real-time under stress. This shift necessitates a more adaptive usability model, one that accounts for the psychological and physiological changes users undergo when coping with stressors.

Neurocognitive Foundations of Dynamic Assessment

To address the limitations of static models like TAM, this study reconceptualizes AI-enabled ease of use (AI-EoU) as a dynamic, stress-responsive usability appraisal within TMSC's secondary appraisal phase. Unlike the static nature of PEOU, AI-EoU reflects real-time user assessments of AI systems' controllability and friction during active stress episodes. Neuroscientific research supports this view: under stress, amygdala-prefrontal pathways recalibrate threat-coping alignment, allowing intuitive AI interfaces to restore perceived control (Crosswell et al., 2022). AI-EoU, therefore, operates as an adaptive biopsychosocial filter, dynamically reweighting interface priorities based on stress intensity.

Empirical Validation of Contextual Plasticity

Field studies further validate the contextual and dynamic nature of AI-EoU across various dimensions. Parasuraman and Colby (2015)highlight how technological evolution renders traditional usability metrics obsolete, replacing them with interaction-centric constructs. In high-risk settings, perceived job threats suppress the effectiveness of usability features: for example, simplified AI interfaces failed to increase adoption in surgical settings (Petersson et al., 2022). Conversely, in low-risk tasks like AI-assisted documentation, ease-of-use features enhance user engagement through satisfaction mediation (Fok et al, 2024). Demographics also moderate these effects: higher-income users exhibit a stronger positive response to streamlined interfaces(Ansari & Farooqi, 2017). These findings demonstrate that AI-EoU functions as a situational appraisal, shaped by individual traits, risk profiles, and motivational factors.

Theoretical Advancements and Design Implications

This reconceptualization extends stress theory by introducing two key dimensions, as was shown in table 2.1:

Table 2.1
Core Theoretical Distinctions Between AI-EoU and Classic PEOU Frameworks

Dimension	AI-EoU Contribution	PEOU Limitation
Temporal Precision	Captures micro-level appraisals during stress-laden interactions	Reflects long-term pre-use beliefs
Theoretical Role	Functions as a coping mediator within TMSC's architecture	Serves as a static predictor

By integrating ease of use into secondary appraisal, AI-EoU explains how usability can drive adaptive responses in volatile environments. This shift enhances theoretical granularity and informs the design of context-aware AI systems that support resilience and psychological well-being in high-pressure workplaces(Wei & Li, 2022), such as those in Shandong's manufacturing sector. Specifically, AI systems could be designed to trigger voice-guided protocols during equipment failures or simplify interfaces when biometric sensors detect cortisol spikes(Kinnamon et al., 2017). These adaptations align usability with real-time psychophysiological states, promoting better stress management and performance.

Integrated Model

Stress Management is conceptualized within the Transactional Model of Stress and Coping (TMSC) as the effectiveness with which individuals regulate emotional and physiological responses to stressors through cognitive appraisal and coping strategies (Evangelia et al., 2011; Wirtz et al., 2013). It reflects the outcome of an individual's dynamic interaction with their environment(Adenan et al., 2023), encompassing the degree to which one restores psychological balance and maintains well-being following exposure to stress-inducing demands (Lazarus & Folkman, 1984).

As an outcome variable in this study, stress management involves measurable reductions in perceived stress, emotional exhaustion, and maladaptive reactions, often operationalized via constructs like psychological detachment, emotional recovery, or engagement in restorative behaviors. Instruments such as the Stress Recovery Experience Questionnaire (Sonnentag & Fritz, 2007)

Research Model

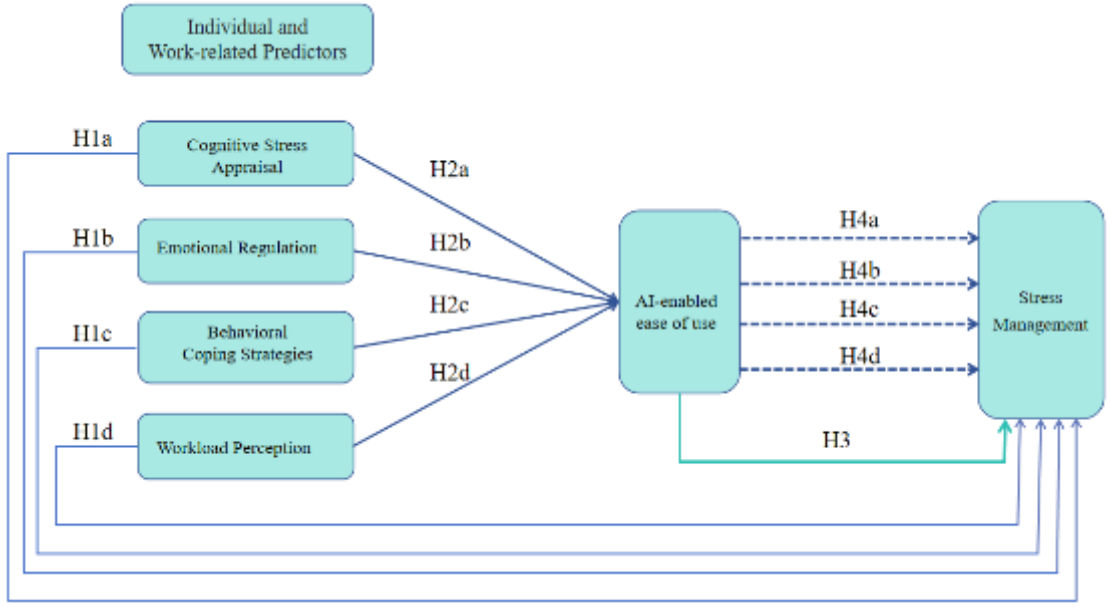

Figure 3.1. Proposed Research Framework - Integrating AI-Enabled Ease of Use as a Mediator within the TMSC Structure (Self-developed)
Note: bold lines: direct relationship (—) and indirect relationship: dotted lines (- - -)

This proposed framework (Figure 3.1) hypothesizes that four predictors: cognitive stress appraisal (CSA), emotional regulation (ER), behavioral coping strategies (BCS), and workload perception (WP), influence stress management through dual pathways: direct effects(solid lines; H1a-H1d), and indirect effects mediated by AI-enabled ease of use (dotted lines; H4a-H4d). By embedding AI-EoU within the secondary appraisal stage of the Transactional Model of Stress and Coping (TMSC), the model reconceptualizes usability as a dynamic cognitive filter that recalibrates coping efficacy under high-pressure conditions. This context-sensitive mediation may be critical in Shandong's manufacturing sector, where just-in-time production and digital skill shortages intensify reliance on low-friction AI tools.

Discussion

This study introduces a conceptual model grounded in the Transactional Model of Stress and Coping (TMSC), aiming to explain how AI-enabled systems influence stress management processes in technology-mediated work environments (Zisopoulou & Varvogli., 2022). By integrating four cognitive-behavioral predictors, cognitive stress appraisal, emotional regulation, behavioral coping strategies, and workload perception, with AI-enabled ease of use functioning as a mediating variable, the framework repositions usability not merely as a feature of technology acceptance, but as a psychologically embedded resource within the coping process.

Theoretical Contributions

The proposed model extends the scope of the TMSC by embedding digital usability as a psychologically meaningful component of secondary appraisal. This reframing addresses a critical gap in conventional stress-coping models, which often overlook the role of technology in shaping subjective coping capacity (Xu et al., 2020; Adenan et al., 2023). In doing so, the model advances cognitive-behavioral theory by conceptualizing AI tools as internalized resources that actively mediate the appraisal–coping–outcome chain in high-pressure environments (Othman, 2018;Liu et al., 2004). This contributes to a growing body of literature on digital cognition and stress, highlighting the importance of technologically embedded affordances in modern coping frameworks.

Practical Implications

The framework offers actionable insights for system designers, HR professionals, and mental health practitioners, particularly within manufacturing enterprises (Hu et la., 2024). It underscores the importance of user-centered AI design to support emotional resilience in digitally mediated workplaces. Organizations that aim to utilize AI tools for stress mitigation should prioritize intuitive interface design, context-aware feedback mechanisms, and personalized support functions (Mittal et al., 2019). These strategies can not only enhance system adoption but also improve psychological outcomes through seamless, low-friction digital interactions.

Limitations and Future Directions

As a conceptual study, this work lacks empirical validation. Future research should test the proposed model using structural equation modeling (SEM) across diverse occupational contexts to evaluate its generalizability. Additionally, perceptions of AI-enabled ease of use may vary significantly across demographic groups, such as those distinguished by age, digital literacy, cultural background, especially the adaption in different countries warranting further examination. To facilitate future empirical testing and enhance the model's practical applicability, Table 4.1 summarizes recommended measurement frameworks and illustrative indicators for each key construct discussed in this study.

Future research could explore the moderating role of cultural constructs, such as mianzi (face culture), collectivism, and power distance, in shaping perceptions of AI usability and coping engagement. These cultural factors may play an important role in cross-cultural settings by influencing how individuals assess stress and interact with AI tools, potentially affecting the coping process and stress management outcomes in different cultural contexts. Specifically, mianzi could influence how individuals perceive the social acceptability of using

AI tools to cope with stress, while collectivism and power distance could shape how users from different cultures adapt to AI tools in hierarchical or group-focused environments.

Table 4.1
Operationalization Pathways for Key Constructs in Further Study

Core Constructs	Measurement Framework	Key Adapted Indicators	Key Adopted Indicators	Source
Cognitive Stress Appraisal	Perceived Stress Questionnaire (PSQ)		★You feel under pressure from deadlines. ★You feel that too many demands are being made on you.	Fliege et al., 2005
Emotional Regulation	Emotional Regulation Questionnaire (ERQ):		★When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about. ★When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about.	Gouveia et al., 2018
Behavioral Coping Strategies	The COPE Revised Questionnaire		★I take additional action to try to get rid of the problem ★I give up the attempt to get what I want	Zuckerman & Gagne, 2003
Workload Perception	Individ-ual Workload Perception Scale–Revised (IWPS-R)	★There have been times when the size of my workload caused to miss an important change in a task condition.	★Most days I feel my workload is reasonable.	Ross, 2017
Stress Management	Recovery Experience Questionnaire		★I forget about work. ★I get a break from the demands of work.	Sonnentag & Fritz, 2007
AI-enabled of use	PEOU Scale	★I would find it easy to get AI to do what I want it to do. ★I would find AI easy to use.		Kengue Mayamou & Michel, 2020

Conclusion

In summary, this study advances the understanding of stress management in digital environments by conceptualizing AI-enabled ease of use as a secondary appraisal resource within the TMSC. By integrating both individual-level (e.g., cognitive appraisal and emotional regulation) and work-related (e.g., workload perception) predictors, the proposed model offers a theoretically grounded framework for explaining how individuals interact with intelligent systems under stress. By bridging stress psychology with human–AI interaction, the model provides both theoretical insight and practical guidance for promoting well-being in AI-mediated work settings.

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