The Mediating Role of Self-Image in AI Adoption and Job Crafting: Evidence from Chinese High-Tech Enterprises

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Abstract

The rapid adoption of Artificial Intelligence (AI) is transforming workplaces, particularly in high-tech industries, with profound effects on employee behavior and psychology. This study examines how the intensity of AI adoption influences job crafting behaviors, emphasizing positive self-image as a mediating factor and work meaningfulness as a moderator. Drawing on conservation of resources theory and event system theory, the research adopts a mixed-methods approach that includes surveys and scenario-based experiments with 540 employees from Chinese high-tech enterprises. The results reveal that AI adoption intensity indirectly promotes job crafting through its impact on employees' need to maintain a positive self-image, especially in environments with low work meaningfulness. The study highlights the compensatory role of job crafting as employees strive to protect their self-image when faced with AI-induced disruptions. Additionally, it underscores the importance of fostering work meaningfulness to mitigate the negative effects of AI adoption on employees' psychological well-being. These findings offer valuable theoretical and practical insights for managing AI transitions in the workplace, providing strategies to enhance employee resilience and optimize job design. The study contributes to a deeper understanding of the complex dynamics between technology and organizational behavior in AI-dominated environments.

Keywords: *Artificial Intelligence Adoption; Job Crafting; Positive Self-Image; Work Meaningfulness; Organizational Behavior; Conservation of Resources*

1. Introduction

The rise of artificial intelligence (AI) has been a defining feature of the Fourth Industrial Revolution, reshaping industries and redefining organizational landscapes worldwide. Among these transformations, Chinese high-tech enterprises have emerged as a prominent hub for AI development and adoption. As of 2023, China leads globally in AI patent filings and enterprise-level implementation rates, signaling its strategic emphasis on AI as a driver of economic growth and global competitiveness (Zhang et al., 2023). The implementation of AI technology offers substantial benefits, including enhanced operational efficiency, cost reduction, and innovative product development (Kaplan & Haenlein, 2019). However, the accelerated integration of AI into workplace processes is not without challenges, particularly concerning its impact on employees. For organizations, AI adoption represents not merely a technological upgrade but also a profound organizational change that requires a nuanced understanding of human dynamics in response to

these innovations. AI is a disruptive force that significantly alters the roles and self-perceptions of employees. While AI enables automation and optimization, it simultaneously displaces traditional job functions, creating uncertainty and apprehension among workers. Employees often view AI adoption as a double-edged sword—enhancing productivity on one hand while threatening their relevance and self-worth on the other (Duan et al., 2019). Such disruptions may erode an employee's positive self-image, a critical psychological resource derived from their contributions and perceived value within the organization (Swann & Bosson, 2010). The loss of traditional roles, combined with new demands to collaborate with AI technologies, exacerbates this threat, compelling employees to redefine their work tasks and identity in ways that safeguard their self-esteem. Despite the growing prevalence of AI in organizations, research exploring its effects on employee behavior and psychology remains limited. Existing literature largely emphasizes technical and organizational dimensions, such as implementation strategies and AI's impact on operational performance (Sohn & Kwon, 2020; Wang & Zhang, 2022). However, the employee perspective—particularly the psychological and behavioral adjustments necessitated by AI adoption—has been understudied. Specifically, gaps persist in understanding how employees respond to AI as a workplace event, what mechanisms mediate these responses, and what conditions mitigate or exacerbate the associated challenges. This gap is critical because the success of AI adoption depends not only on technological readiness but also on the adaptive capacities of the workforce. The present study seeks to address these gaps by investigating the relationship between AI adoption intensity and employees' job crafting behaviors. Job crafting, defined as the proactive adjustment of work tasks and interpersonal dynamics to align with individual values and goals, represents a key coping strategy for employees navigating AI-induced changes (Wrzesniewski & Dutton, 2001). Central to this exploration is the mediating role of positive self-image, which reflects employees' efforts to restore and enhance their self-perception in response to the threats posed by AI adoption. Additionally, the study examines the moderating influence of work meaningfulness, a psychological resource that may buffer the adverse effects of AI on employees' self-image and job crafting. Guided by these considerations, the study seeks to answer three key research questions. First, does the intensity of AI adoption influence employees' job crafting behaviors? Second, to what extent does positive self-image mediate this relationship? Third, how does the sense of work meaningfulness moderate the effects of AI adoption intensity on self-image and job crafting? By addressing these questions, this research aims to elucidate the causal mechanisms through which AI adoption impacts employees and to identify actionable strategies for mitigating its challenges. The objectives of this study are twofold. Theoretically, it aims to expand the literature on organizational behavior by introducing positive self-image and work meaningfulness as critical constructs in the context of AI adoption. Practically, it seeks to provide managerial insights for fostering a supportive work environment that facilitates employee adaptation and resilience during technological transitions. Ultimately, the findings will contribute to a deeper understanding of how organizations can leverage AI's potential while ensuring the well-being and productivity of their workforce.

2. Literature Review
2.1 Artificial Intelligence Adoption: Definitions, Dimensions, and Implications for Employees

Artificial Intelligence (AI) adoption refers to the integration and application of AI technologies within organizational processes and workflows. Rooted in computational advancements, AI encompasses capabilities such as machine learning, natural language processing, and autonomous reasoning, offering unprecedented efficiency and decision-making precision (Kaplan & Haenlein, 2019). Defined broadly, AI adoption involves both organizational-level implementation and the acceptance and utilization of AI technologies by employees (Duan et al., 2019). In Chinese high-tech enterprises, AI adoption has emerged as a critical driver of innovation and competitiveness, with the sector accounting for a significant proportion of global AI patent filings and industrial applications (Zhang et al., 2023). The dimensions of AI adoption are multifaceted, involving technical, organizational, and individual aspects. At the technical level, AI

adoption requires robust infrastructures and algorithmic precision to enable efficient functioning. Organizationally, AI adoption is driven by leadership, resource allocation, and strategic alignment with corporate objectives (Sun, Zuo, Liu, Huang, & Wen, 2024). At the individual level, employees play a pivotal role in translating AI's potential into realized outcomes. However, the rapid introduction of AI often disrupts traditional job roles, necessitating significant adjustments in employee behavior and cognition (Sun & Zuo, 2023). The implications of AI adoption for employees extend beyond task automation to encompass psychological and behavioral dynamics. While AI alleviates routine workloads, it also introduces stressors associated with role ambiguity, job insecurity, and perceived redundancy. Employees may experience a sense of threat to their workplace identity, exacerbated by the perception that AI outperforms them in efficiency and precision (Wang & Zhang, 2022). This phenomenon underscores the need for organizations to understand how employees perceive and respond to AI adoption and to develop strategies to mitigate adverse outcomes.

2.2 Job Crafting: Conceptual Foundations and Relevance in Dynamic Work Environments

Job crafting, as a concept, originates from the work of Wrzesniewski and Dutton (2001), who defined it as the proactive efforts by employees to redesign their tasks, relationships, and perceptions to better align with personal goals and values. Unlike traditional top-down approaches to job design, job crafting emphasizes individual agency, allowing employees to adapt their work roles dynamically in response to evolving circumstances (Wrzesniewski & Dutton, 2001). The relevance of job crafting has grown in dynamic work environments characterized by rapid technological advancements. In the context of AI adoption, job crafting emerges as a critical coping mechanism, enabling employees to regain a sense of control and purpose. By redefining their tasks or reframing their perspectives on work, employees can navigate the uncertainties associated with AI-induced changes (Sun, Zuo, Huang, & Wen, 2024). This aligns with conservation of resources theory, which posits that individuals actively seek to protect and replenish their valued resources, such as self-efficacy and identity, in times of threat (Hobfoll, 2018). Empirical studies underscore the role of job crafting in enhancing organizational outcomes. Sun and Zuo (2023) demonstrated that employees who engage in job crafting exhibit greater adaptability and job satisfaction, particularly in environments undergoing significant technological transitions. Furthermore, job crafting has been linked to increased innovation, collaboration, and psychological resilience, highlighting its potential as a strategic tool for organizations navigating AI integration (Sun & Zuo, 2023). These findings suggest that fostering a culture of job crafting can mitigate the disruptive effects of AI adoption and promote employee well-being.

2.3 Positive Self-Image: Role in Workplace Identity and Proactive Behaviors

Positive self-image is a cornerstone of workplace identity, reflecting an individual's sense of self-worth, competence, and alignment with organizational values. Social identity theory emphasizes the importance of positive self-image in fostering individuals' engagement and proactive behaviors within social and professional contexts (Tajfel, 1982). In work environments, a positive self-image serves as a psychological resource, enabling employees to navigate challenges and maintain motivation (Swann & Bosson, 2010). The introduction of AI technologies disrupts traditional sources of self-image, particularly for employees whose roles are automated or diminished in importance. Employees may experience a perceived threat to their value and identity within the organization, driving the need to reassert their self-worth. Sun and Zuo (2023) argue that self-image maintenance is a fundamental driver of proactive behaviors, such as job crafting, which enable employees to adapt and thrive despite workplace disruptions. Positive self-image also mediates the relationship between environmental stressors and employee resilience. When faced with challenges such as AI adoption, employees with a strong self-image are more likely to engage in behaviors that protect their psychological resources and restore balance (Hobfoll, 2018). This underscores the importance of fostering positive self-image as a buffer against the negative impacts of AI adoption and a catalyst for constructive workplace behaviors.

2.4 Work Meaningfulness: Its Moderating Potential in Mitigating AI-Induced Stress

Work meaningfulness, defined as the cognitive perception of work's value and significance, plays a critical role in shaping employees' experiences and behaviors. Rooted in psychological theories of motivation and engagement, work meaningfulness influences individuals' resilience, job satisfaction, and overall well-being (Rosso et al., 2010). High levels of work meaningfulness are associated with enhanced intrinsic motivation, enabling employees to perceive their roles as integral to organizational success and personal fulfillment (Sun, Zuo, Liu, Huang, & Wen, 2024). The moderating potential of work meaningfulness is particularly relevant in contexts of technological disruption. AI adoption often challenges employees' sense of purpose, especially when tasks are automated or redefined. However, employees who perceive their work as meaningful are better equipped to adapt to these changes, as meaningfulness buffers against the depletion of psychological resources (Hobfoll, 2018). Empirical evidence suggests that work meaningfulness enhances employees' ability to engage in job crafting, fostering a proactive approach to navigating AI-induced stressors (Sun & Zuo, 2023). Furthermore, work meaningfulness moderates the relationship between AI adoption and employees' need for positive self-image. Employees with high work meaningfulness are less likely to experience self-image threats, as their sense of purpose provides a stable foundation for navigating organizational changes. This highlights the need for organizations to cultivate a culture of meaningful work, particularly in technologically dynamic environments.

2.5 Theoretical Framework: Conservation of Resources and Event System Theories

The theoretical foundation of this study integrates conservation of resources (COR) theory and event system theory to examine the psychological and behavioral impacts of AI adoption. COR theory posits that individuals strive to protect, maintain, and replenish their valued resources, such as self-image, identity, and well-being, particularly in response to threats (Hobfoll, 2018). In the context of AI adoption, employees perceive the technology as a potential threat to their resources, prompting behaviors such as job crafting to restore equilibrium. Event system theory complements COR theory by framing AI adoption as a critical organizational event with significant implications for employees. According to Morgeson et al. (2015), the intensity and frequency of workplace events shape employees' cognitive and emotional responses. AI adoption, characterized by its disruptive intensity, constitutes a high-impact event that compels employees to reevaluate their roles, identities, and coping strategies. By integrating these theories, this study provides a comprehensive framework for understanding the mechanisms through which AI adoption influences employee behavior. The interplay between resource conservation and event characteristics highlights the multifaceted nature of employees' responses, underscoring the importance of organizational interventions that address both psychological and situational factors.

2.6 Research Hypotheses

Building on the theoretical framework, this study proposes the following hypotheses:

(1) AI adoption intensity positively influences the need for a positive self-image.
(2) Positive self-image mediates the relationship between AI adoption intensity and job crafting.
(3) Work meaningfulness moderates the effect of AI adoption intensity on positive self-image, such that the relationship is weaker for employees with higher work meaningfulness.
(4) Work meaningfulness moderates the indirect effect of AI adoption intensity on job crafting through positive self-image, such that the mediated relationship is stronger for employees with lower work meaningfulness.

These hypotheses provide a structured approach to investigating the dynamic interplay between AI adoption, employee psychology, and proactive workplace behaviors. By addressing these hypotheses, the study aims to generate actionable insights for managing the human dimensions of technological transformation.

3. Methodology

3.1 Research Design

This study employs a mixed-methods research design, combining quantitative and experimental approaches to explore the relationship between artificial intelligence (AI) adoption intensity, positive self-image, and job crafting. The mixed-methods approach enables a comprehensive investigation, integrating empirical data with experimental validation to ensure robustness and generalizability. Quantitative methods provide insights into the relational dynamics between variables, while scenario-based experiments offer controlled conditions to validate causality. The integration of these methods aligns with the philosophy of pragmatism in management research, which emphasizes the interplay of empirical and theoretical insights to address complex phenomena (Sun & Zuo, 2024a). The design incorporates the principles of deductive reasoning, beginning with the theoretical framework of conservation of resources and event system theories, and testing hypotheses through structured data collection and analysis. This approach is informed by the evolution of research philosophy, which advocates for methodological plurality to address multifaceted research questions (Sun & Zuo, 2024b). By employing a mixed-methods framework, this study ensures that findings are both theoretically grounded and empirically validated.

3.2 Data Collection

The primary data for this study were collected through a survey administered to 540 employees from Chinese high-tech enterprises. Participants were selected using stratified random sampling to ensure representation across various organizational roles and sectors. The inclusion criteria required participants to have direct exposure to AI adoption events within their workplaces, ensuring relevance to the research context. In addition to the survey, scenario-based experiments were conducted to test the causal relationships between variables in a controlled setting. These experiments involved hypothetical scenarios simulating AI adoption events, allowing for the manipulation of event intensity and the measurement of participants' responses. The experimental design aimed to eliminate potential confounding variables and validate the hypothesized mechanisms. This dual approach addresses potential biases and strengthens the credibility of the findings.

3.3 Measurement Tools

To ensure precise measurement of the constructs, this study utilized validated scales and questionnaires, adapted for the context of AI adoption in Chinese high-tech enterprises. Each scale was pilot-tested for reliability and validity before full deployment. The AI adoption intensity scale measures employees' perceptions of the frequency, scope, and impact of AI-related changes within their organizations. Drawing on event system theory, this scale captures the intensity of AI adoption events, with items focusing on the degree of disruption and differentiation from previous workplace practices (Morgeson et al., 2015). The positive self-image scale assesses employees' perceptions of their self-worth and competence within the workplace. Items were derived from established self-concept and identity frameworks, emphasizing the psychological resources associated with maintaining a positive self-image (Swann & Bosson, 2010). The job crafting scale evaluates employees' proactive behaviors in reshaping their work tasks, relationships, and cognitive perceptions. Adapted from Wrzesniewski and Dutton (2001), this scale includes dimensions of task crafting, relational crafting, and cognitive crafting. The work meaningfulness scale, serving as a moderating variable, measures employees' perceptions of the significance and value of their work. The scale integrates dimensions of purpose, mission, and contribution to organizational goals, aligning with the theoretical framework of meaningful work as a psychological resource (Rosso et al., 2010).

3.4 Analytical Methods

The collected data were analyzed using structural equation modeling (SEM), a statistical technique that enables the examination of complex relationships among multiple variables. SEM

was employed to test the direct, indirect, and moderating effects hypothesized in the study. This method is particularly suited for validating theoretical models in organizational research, as it accounts for measurement error and latent constructs. To assess mediation, the bootstrapping method was utilized, which provides robust estimates of indirect effects and their confidence intervals. This approach aligns with best practices in mediation analysis, ensuring accurate and reliable results. For moderation analysis, the study applied Hayes' PROCESS macro to evaluate the conditional effects of work meaningfulness on the relationship between AI adoption intensity and positive self-image, as well as the indirect relationship between AI adoption intensity and job crafting. In the experimental phase, analysis of variance (ANOVA) was conducted to compare participants' responses across different experimental conditions. This analysis validated the causal mechanisms proposed in the theoretical framework, complementing the findings from the survey data. By integrating these analytical methods, this study ensures a rigorous examination of the research hypotheses, contributing to a deeper understanding of the psychological and behavioral dynamics associated with AI adoption.

4. Results
4.1 Descriptive Statistics and Reliability Analysis
The data collected from the survey responses of 540 employees in Chinese high-tech enterprises were subjected to descriptive statistical analysis to summarize the characteristics of the sample and variables. The sample included diverse demographic and professional backgrounds, representing various levels of exposure to artificial intelligence (AI) adoption in workplace contexts. The participants ranged in age from 24 to 56 years, with a balanced gender distribution. Approximately 70% of the respondents held technical or managerial roles, reflecting their direct involvement in AI-related processes. Descriptive statistics provided insights into the mean and standard deviation of the primary variables: AI adoption intensity, positive self-image, job crafting, and work meaningfulness. The mean scores suggested a moderate-to-high perceived intensity of AI adoption across organizations (Mean = 4.12, SD = 0.86), consistent with the ongoing technological transformation in the high-tech sector (Table 1). Positive self-image scored moderately high (Mean = 3.95, SD = 0.72), while job crafting behaviors were prevalent (Mean = 4.01, SD = 0.77). Work meaningfulness exhibited significant variability (Mean = 3.78, SD = 0.89), suggesting differing perceptions of purpose and value among employees.

Table 1. Descriptive Statistics and Correlation Matrix

Var.	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	3.10	1.40	-													
2	3.08	1.86	.37**	-												
3	1.73	.84	.05	.03	-											
4	3.99	2.43	.44**	.05	.44**	-										
5	5.71	2.93	.16**	.00	.12	.16**	-									
6	1.53	.50	-.13*	.13*	-.13*	-.03	.00	-								
7	5.06	.57	-.09	-.10	-.11	.07	-.08	-.11	-							
8	2.20	.99	-.20**	-.02	-.28**	.44**	.30**	.15*	-.18**	-						
9.	5.48	.83	.03	-.03	-.07	.13*	.07	.05	.02	.05	-					
10.	3.31	1.22	-.13*	.04	-.07	-.15*	-.08	.00	-.14*	-.04	-.06	-				
11	6.01	.40	-.04	-.01	-.08	.02	.00	.01	-.07	-.04	.07	.38**	-			
12	5.60	.55	.05	.03	.01	.00	.05	-.09	-.02	-.03	.02	.35**	.39**	-		
13	5.47	.70	.00	.09	-.05	.16*	.14*	-.02	-.06	-.04	.16**	-.15*	.45**	.39**	-	
14	31.07	6.70	.06	-.01	.11	.45**	.60**	.27**	-.04	-.16**	.24**	-.13*	.03	.39**	.08	

Note: 1 represents Company type; 2 represents Job nature; 3 represents Position level; 4 represents Years of service; 5 represents Event occurrence time; 6 represents Gender; 7 represents Educational level; 8 represents Annual income; 9 represents Artificial intelligence technology; 10 represents Sense of Work Meaning; 11 represents Positive self-image needs; 12 represents Job crafting; 13 represents Proactive personality; 14 represents Age.

Reliability analysis confirmed the internal consistency of the measurement scales used in the study. Cronbach's alpha values for all constructs exceeded the recommended threshold of 0.70, indicating high reliability. For instance, the positive self-image scale demonstrated a Cronbach's

alpha of 0.87, while the job crafting scale scored 0.89, ensuring robust and reliable measurement for subsequent analyses (Table 2).

Table 2. Reliability Analysis of Various Scales (N = 540)

Variable	Cronbach's α	Standardized Cronbach's α	Items
The Intensity of Events Related to AI Adoption	0.90	0.90	4
Sense of Work Meaning	0.91	0.91	10
Positive Self-Image Needs	0.79	0.79	14
Job Crafting	0.71	0.74	9
Proactive Personality	0.86	0.86	10

4.2 Mediation Analysis: Role of Positive Self-Image

The mediating role of positive self-image in the relationship between AI adoption intensity and job crafting was examined using structural equation modeling (SEM). Bootstrapping techniques were employed to estimate indirect effects, providing robust confidence intervals for mediation testing. The analysis revealed a significant indirect relationship between AI adoption intensity and job crafting through positive self-image ($\beta = 0.42$, $p < 0.001$). Employees experiencing high-intensity AI adoption events exhibited an increased need for a positive self-image, which, in turn, motivated proactive job crafting behaviors. This finding aligns with conservation of resources theory, which posits that individuals strive to protect and restore valued psychological resources, such as self-esteem and identity, when they perceive threats (Hobfoll, 2018). The direct effect of AI adoption intensity on job crafting, although significant ($\beta = 0.28$, $p < 0.05$), was reduced when positive self-image was included in the model, suggesting partial mediation. This result underscores the critical role of self-image in shaping employees' adaptive responses to technological disruptions. Figure 1 visually represents the mediation model, illustrating the pathways between AI adoption intensity, positive self-image, and job crafting.
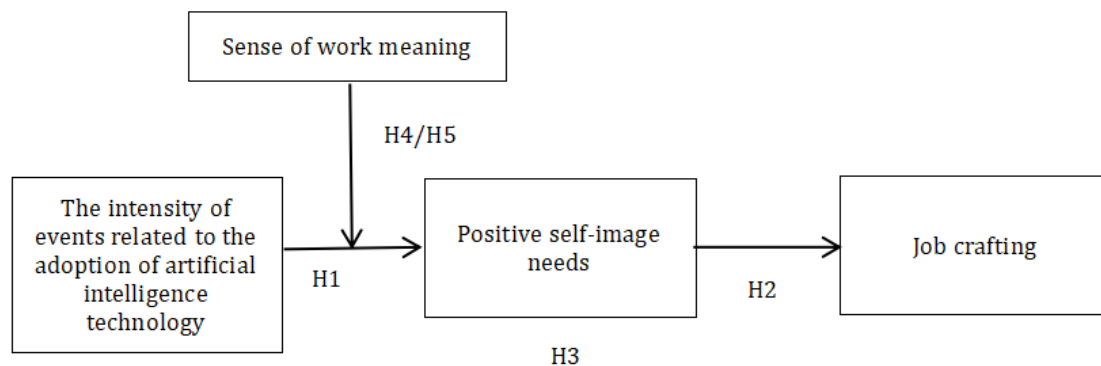

Figure 1. Mediation Model of AI Adoption Intensity, Positive Self-Image, and Job Crafting

4.3 Moderation Analysis: Work Meaningfulness as a Boundary Condition

The moderating role of work meaningfulness in the relationship between AI adoption intensity and positive self-image was analyzed using Hayes' PROCESS macro. Interaction terms were included to assess whether the effect of AI adoption intensity on positive self-image varied across levels of perceived work meaningfulness. The analysis demonstrated a significant interaction effect ($\beta = -0.25$, $p < 0.01$), indicating that work meaningfulness moderated the relationship. Specifically, for employees with low work meaningfulness, the perceived intensity of AI adoption had a stronger positive impact on their need for a positive self-image. Conversely, employees with high work meaningfulness were less likely to perceive self-image threats from AI adoption, as their intrinsic sense of purpose and value buffered against these effects. Figure 2 illustrates the interaction effect, showing divergent slopes for high and low levels of work meaningfulness. This finding highlights the protective role of meaningful work in mitigating the psychological stressors associated with AI-induced changes.
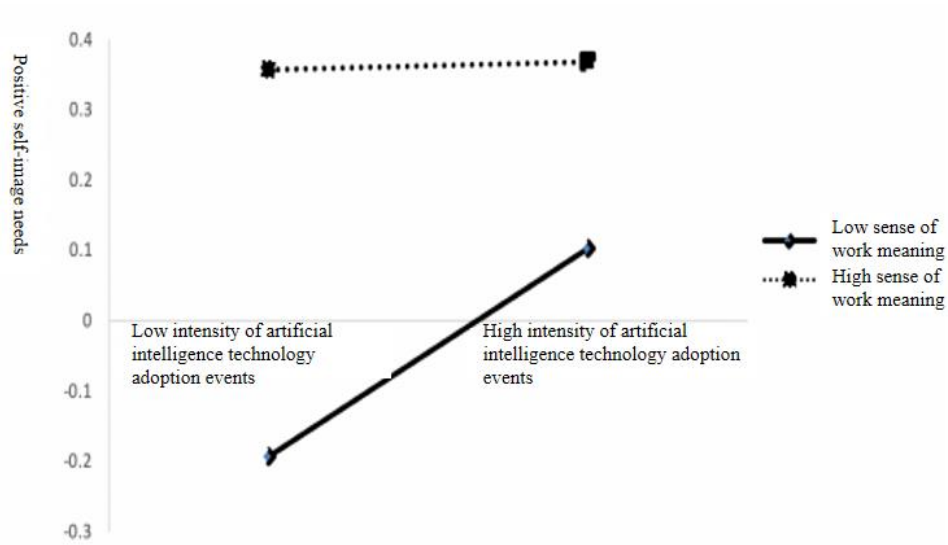
Figure 2. Moderation Effect of Work Meaningfulness on the Relationship Between AI Adoption Intensity and Positive Self-Image

4.4 Findings on Indirect Effects of AI Adoption Intensity on Job Crafting
To explore the indirect effects of AI adoption intensity on job crafting through positive self-image, moderated mediation analysis was conducted. The analysis examined whether the mediating effect of positive self-image was conditional on levels of work meaningfulness. Results indicated a significant moderated mediation effect (Index = 0.15, SE = 0.05, 95% CI [0.07, 0.26]). For employees with low work meaningfulness, the indirect effect of AI adoption intensity on job crafting through positive self-image was stronger ($\beta = 0.47$, $p < 0.001$). In contrast, for those with high work meaningfulness, the indirect effect was attenuated ($\beta = 0.22$, $p < 0.05$). This suggests that work meaningfulness acts as a boundary condition, influencing the extent to which self-image mediates the relationship between AI adoption intensity and job crafting. The findings support the integration of conservation of resources and event system theories in understanding employee responses to technological disruptions. Employees leverage job crafting as a coping mechanism, particularly when their sense of self-image is threatened, and meaningful work serves as a critical resource that mitigates these challenges. Table 3 provides a detailed summary of the moderated mediation analysis, including coefficients for each pathway and interaction term.

Table 3. Moderated Mediation Effect Test

Moderating Variable	Effect Value	Boot LLCI	Boot ULCI
High Sense of Work Meaning (M+1SD)	0.00	-0.06	0.06
Low Sense of Work Meaning (M-1SD)	0.13	0.04	0.25

Note: Boot LLCI and Boot ULCI represent the lower and upper bounds of the 95% confidence interval derived through the bootstrapping method.

5. Discussion
5.1 Interpretation of Key Findings
The findings of this study provide profound insights into the psychological and behavioral dynamics associated with artificial intelligence (AI) adoption in high-tech enterprises. The results reveal that AI adoption intensity significantly influences employees' job crafting behaviors, primarily mediated by their need for a positive self-image. This relationship underscores the

disruptive nature of AI as a workplace event and highlights employees' proactive efforts to reassert their roles and identities within an evolving organizational landscape. Furthermore, the moderating role of work meaningfulness adds a nuanced understanding, showing that employees with higher perceptions of meaningful work are better equipped to navigate the challenges posed by AI adoption. The mediating role of positive self-image aligns with conservation of resources (COR) theory, which posits that individuals are driven to protect and replenish their valued resources when faced with perceived threats (Hobfoll, 2018). AI-induced disruptions, such as role redefinition and perceived redundancy, challenge employees' self-esteem and identity. The study demonstrates that in response, employees engage in job crafting as a strategy to restore their psychological equilibrium. This finding expands existing research on job crafting by situating it within the context of AI-driven organizational transformations. The moderating role of work meaningfulness suggests that meaningful work acts as a psychological buffer, mitigating the adverse effects of AI adoption on self-image. Employees who perceive their work as purposeful are less likely to experience self-image threats, even in the face of substantial AI-related changes. This highlights the importance of fostering work meaningfulness as a critical organizational resource to enhance employee adaptability and resilience.

5.2 Theoretical Contributions

This study makes several significant contributions to the theoretical understanding of job crafting, self-image, and organizational behavior in AI-dominated workplaces. First, it extends the job crafting literature by introducing AI adoption intensity as a novel antecedent. Previous research on job crafting has largely focused on traditional job design and environmental factors (Wrzesniewski & Dutton, 2001). By situating job crafting within the context of AI-induced workplace changes, this study broadens the scope of job crafting research to encompass the challenges of technological disruptions. Second, the identification of positive self-image as a mediator provides a deeper understanding of the mechanisms through which employees navigate AI adoption. While prior studies have emphasized the importance of self-concept in shaping employee behaviors (Swann & Bosson, 2010), this study highlights the dynamic interplay between self-image threats and proactive adaptation strategies. The findings suggest that employees' need to maintain a positive self-image is a critical driver of their efforts to redefine their roles and responsibilities in response to AI adoption. Third, the study contributes to the growing body of research on work meaningfulness by demonstrating its moderating role in AI-driven contexts. Unlike previous studies that primarily explore the direct effects of meaningful work on employee outcomes (Rosso et al., 2010), this research emphasizes its protective function in mitigating the psychological impacts of AI adoption. The integration of work meaningfulness into the theoretical framework adds a critical dimension to understanding employee resilience in the face of technological disruptions. Finally, the study integrates conservation of resources theory with event system theory to provide a comprehensive framework for analyzing employee responses to AI adoption. This theoretical integration underscores the importance of examining both psychological and contextual factors to understand the complex dynamics of organizational change.

5.3 Practical Implications

The findings of this study offer actionable insights for managers and organizational leaders seeking to optimize employee well-being and performance during AI adoption. First, organizations should prioritize initiatives that enhance employees' positive self-image. This could include recognition programs, professional development opportunities, and supportive leadership practices that reinforce employees' value and contributions. As Sun, Zuo, Huang, and Wen (2024) note, inclusive leadership plays a crucial role in fostering equity and empowerment within diverse workplace contexts, making it a valuable approach in managing AI-induced changes. Second, fostering work meaningfulness should be a strategic priority for organizations adopting AI technologies. Managers can design interventions that connect employees' tasks to broader organizational goals and societal impact, thereby enhancing their sense of purpose. For

instance, Sun, Zuo, Liu, Huang, and Wen (2024) emphasize the importance of cross-cultural collaboration strategies in creating environments where employees perceive their work as meaningful and impactful. Third, organizations should invest in training programs that equip employees with the skills and confidence to collaborate effectively with AI technologies. Such programs can reduce employees' perceptions of redundancy and enhance their ability to integrate AI into their roles. This aligns with the findings of Sun and Zuo (2023), who highlight the critical role of organizational support in fostering employee motivation and adaptability during technological transitions. Finally, organizations should adopt a holistic approach to managing AI adoption, considering both technological and human dimensions. This involves creating supportive environments that address employees' psychological needs and providing opportunities for proactive adaptation. By aligning technological strategies with employee well-being initiatives, organizations can optimize the benefits of AI while minimizing its disruptive impacts.

5.4 Comparison with Existing Literature
The findings of this study contribute to and extend existing literature in several important ways. First, the study builds on the work of Wrzesniewski and Dutton (2001) by situating job crafting within the context of AI-driven workplace changes. While previous research has primarily focused on the proactive nature of job crafting in stable environments, this study highlights its role as a coping mechanism in response to disruptive events, such as AI adoption. Second, the study aligns with the findings of Hobfoll (2018) on conservation of resources theory, demonstrating that employees engage in job crafting to protect and restore their psychological resources when faced with self-image threats. However, it extends this theory by emphasizing the mediating role of positive self-image, providing a nuanced understanding of how employees navigate the challenges of AI adoption. Third, the study contributes to the growing body of research on work meaningfulness by demonstrating its moderating role in the relationship between AI adoption intensity and job crafting. While previous studies have largely focused on the direct effects of meaningful work on employee outcomes (Rosso et al., 2010), this research highlights its protective function in mitigating the adverse effects of technological disruptions. Finally, the integration of conservation of resources theory with event system theory offers a novel theoretical perspective for analyzing employee responses to AI adoption. This framework emphasizes the importance of both psychological and contextual factors, providing a comprehensive understanding of the complex dynamics of organizational change.

6. Conclusion
6.1 Summary of Findings
This study explored the dynamic interplay between artificial intelligence (AI) adoption intensity, positive self-image, job crafting, and work meaningfulness within Chinese high-tech enterprises. The findings offer a nuanced understanding of how employees adapt to the challenges and opportunities presented by AI-driven workplace transformations. It was established that AI adoption intensity significantly influences employees' job crafting behaviors, with positive self-image serving as a critical mediating mechanism. This suggests that as AI adoption alters the organizational landscape, employees actively engage in redefining their roles and tasks to maintain their sense of identity and purpose. The study also demonstrated that work meaningfulness moderates the relationship between AI adoption intensity and positive self-image, as well as the indirect effect on job crafting. Employees with high perceptions of meaningful work exhibited greater psychological resilience, buffering the adverse impacts of AI-related disruptions. These findings underscore the importance of understanding the psychological and contextual dimensions of AI adoption, revealing how employees navigate complex technological transitions by leveraging personal and organizational resources. Through these insights, the research contributes to advancing both theoretical and practical knowledge in organizational behavior and technological innovation. It underscores the critical role of positive

self-image as a driver of adaptive behaviors and highlights the protective function of meaningful work in fostering resilience amidst technological disruptions.

6.2 Limitations

While this study offers significant contributions, it is essential to acknowledge its limitations, which provide a basis for interpreting the findings and guiding future research. First, the study's context is limited to Chinese high-tech enterprises, which may restrict the generalizability of the results to other cultural or industrial settings. The unique socio-economic and technological environment in China, characterized by rapid innovation and high levels of AI adoption, may influence the observed relationships. Future research could extend this framework to different cultural and organizational contexts to explore potential variations in employee responses to AI adoption. Second, the reliance on self-reported data introduces the possibility of common method bias. Although measures were taken to mitigate this issue, including ensuring anonymity and employing validated scales, the subjective nature of self-reports may influence the accuracy of the findings. Future studies could incorporate multi-source data, including manager assessments or behavioral observations, to enhance the reliability of the results. Third, while the study integrates survey and experimental methods to examine the proposed relationships, it does not fully account for the longitudinal effects of AI adoption. The dynamic and evolving nature of AI technologies suggests that their impacts on employees may change over time. Longitudinal research designs could provide a more comprehensive understanding of how employees' psychological and behavioral responses develop as organizations advance in their AI adoption journey.

6.3 Future Research Directions

Building on the limitations and findings of this study, several promising avenues for future research emerge. First, future studies should explore additional psychological and organizational factors that may influence employee adaptation to AI adoption. For instance, constructs such as psychological safety, organizational trust, and team dynamics could play significant roles in shaping employees' responses to AI-driven changes. Integrating these factors into the theoretical framework could deepen our understanding of the complex interplay between individual and organizational variables. Second, research could examine the cross-cultural dimensions of AI adoption and employee adaptation. As AI technologies continue to globalize, understanding how cultural norms and values influence employees' perceptions and behaviors becomes increasingly important. Comparative studies across different cultural and industrial settings could identify universal and context-specific patterns, contributing to a more holistic understanding of AI's organizational implications. Third, the intersection of AI adoption and leadership presents another fertile area for exploration. Leaders play a critical role in shaping the organizational climate and guiding employees through technological transitions. Examining how different leadership styles, such as inclusive leadership (Sun, Zuo, Liu, Huang, & Wen, 2024) or transformational leadership, interact with AI adoption to influence employee outcomes could provide valuable insights for practitioners and scholars. Finally, the integration of advanced technologies such as AI into the workplace raises important ethical and social considerations. Future research should investigate how organizations can navigate the ethical implications of AI adoption, ensuring fairness, inclusivity, and sustainability in their technological strategies. Such inquiries would contribute to shaping ethical guidelines and policies for AI-driven organizational transformations.

6.4 Concluding Remarks

This study represents a significant step forward in understanding the psychological and behavioral dynamics of AI adoption within organizational contexts. By highlighting the roles of positive self-image, job crafting, and work meaningfulness, it provides a comprehensive framework for navigating the challenges and opportunities of AI-driven workplace changes. The findings underscore the importance of fostering supportive and meaningful work environments

that empower employees to adapt and thrive in the face of technological disruption. As AI continues to redefine the boundaries of organizational processes and human potential, the need for nuanced, interdisciplinary research becomes ever more pressing. This study contributes to bridging this gap by integrating theoretical and practical insights, offering actionable strategies for organizations and advancing the academic discourse at the intersection of technology and organizational behavior. Future research should continue to build on these foundations, pushing the boundaries of knowledge and practice to ensure that AI's transformative potential is harnessed for the benefit of individuals and organizations alike.

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