

The Double-Edged Sword Effect of AI Adoption on Work Engagement

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Abstract

Work engagement refers to a positive behavioral state in which employees fully immerse their physical, cognitive, and emotional energies into their work. The effectiveness of work engagement depends on the extent and effort of the individual's commitment, encompassing vigor, dedication, and absorption. Some studies suggest that the widespread adoption of AI in the workplace increases the risk of unemployment among employees and diminishes their sense of self-identity. However, in reality, AI adoption also alleviates work stress and enhances work efficiency. This study, based on cognitive appraisal theory, proposes that AI adoption exerts a double-edged sword effect on work engagement by influencing employees' perceived benefits and perceived risks, while also highlighting the critical role of human-AI collaboration in this process. The study employed a survey method, analyzing 357 valid observations collected from employees in the IT industry. The research findings reveal that AI adoption indeed exerts a double-edged sword effect on work engagement: perceived benefits positively promote work engagement, while perceived risks negatively impact it. Furthermore, human-AI collaboration plays a significant moderating role in this process. These discoveries not only enrich the theoretical understanding of the relationship between AI and work engagement but also provide practical guidance for managers on how to effectively leverage AI technology to enhance employees' work engagement. The findings of this study emphasize the importance of balancing AI technology application with employee engagement, as well as the crucial role of fostering human-AI collaboration in enhancing workplace efficiency and employee well-being.

Keywords

AI Adoption, Work Engagement, Perceived Benefits, Perceived Risks, Human-AI Collaboration