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A Study of the Double-edged Role of Algorithmic Management on Employees' Job Crafting

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Abstract

Algorithmic management is increasingly prevalent across various industries, it has become an irreversible trend to replace traditional organizational experience management. However, its impact on employees' job crafting behaviors has not been fully explored, which limits our understanding of modern workplace dynamics. This study aims to explore how algorithmic management influences employees' job crafting behaviors through dual pathways to enrich the literature in this field. This study, grounded in the Job Demands-Resources (JD-R) model, proposes that algorithmic management creates dual pathways: a gain path that facilitates job crafting and a loss path that impedes it. Additionally, the moderating role of algorithmic self-efficacy in the pathways is investigated. Utilizing structural equation modeling to test the research hypotheses, data from 278 Chinese employees in the Internet industry were collected via the Credamo platform, ensuring participants were under algorithmic management. The study findings reveal a nuanced picture of algorithmic management's impact. The findings indicate that algorithmic management can enhance thriving at work and support job crafting behaviors, while also increasing emotional exhaustion and obstructing job crafting behaviors. Furthermore, algorithmic self-efficacy strengthens the gain path and mitigates the loss path. Algorithmic management exerts complex influences on employees' job crafting behaviors, with algorithmic self-efficacy playing a significant role. The findings offer a novel perspective for understanding the double-edged sword effects of algorithmic management and provide practical guidance for managers on how to optimize algorithmic management by enhancing employees' algorithmic self-efficacy.

Keywords

Algorithmic Management, Job Crafting, Thriving at Work, Emotional Exhaustion, Algorithmic Self-efficacy