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THE IMPACT OF DIGITAL TRANSFORMATION ON THE SUSTAINABLE PERFORMANCE OF CHINESE MANUFACTURING ENTERPRISES

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Abstract

Digital transformation enables organizational change, enhancing operational efficiency and financial performance. However, the specific mechanism by which digital transformation impacts enterprises' sustainable development performance remains to be further explored. This study takes listed manufacturing firms in China's A-share market from 2012 to 2023 as samples and focuses on how digital transformation affects the sustainable performance of manufacturing enterprises. The empirical results demonstrate three key findings: First, digital transformation has a significant positive impact on corporate sustainable performance, a finding that remains robust to a series of robustness tests. Second, mechanism analysis reveals that enhancing green innovation, alleviating financial constraints, and optimizing internal controls serve as key transmission pathways through which digital transformation drives sustainable performance. Third, heterogeneity analysis under the Technology-Organization-Environment (TOE) framework shows that industry technological characteristics (e.g., high-tech industry status), institutional environment (regional carbon reduction pressure), and market structure (customer concentration) moderate the effectiveness of digital transformation in promoting sustainable performance. This paper contributes to the existing literature by extending research on the micro-level implications of digital transformation, particularly its role in shaping corporate sustainable development. The findings provide a theoretical basis and empirical reference for firms to leverage digital transformation strategies and for policymakers to design supportive measures that facilitate both digitalization and sustainable growth.

Key words: digital transformation, financial constraints, green innovation, internal controlssustainable performance

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