



“Gheorghe Asachi” Technical University of Iasi, Romania



THE NONLINEAR IMPACT OF GREEN PATENT CITATION EMBEDDEDNESS ON CORPORATE SUSTAINABLE DEVELOPMENT

Xiaohong Wang, Yuan Zhang*, Zhaoyuan Ma

Business School, Harbin Institute of Technology, No.92 West Dazhi Street, Nanqang Dist, Harbin, Heilongjiang, China

Abstract

This study aims to construct a green patent citation network model among enterprises to measure green patent citation embeddedness (GPCE), explore its nonlinear relationship with corporate sustainable development performance (CSDP), and identify the boundary conditions that alleviate the constraints associated with excessive GPCE. The results reveal an inverted U-shaped relationship between GPCE and CSDP, suggesting that the positive effect of GPCE weakens after reaching a certain level. Exploratory innovation and exploitative innovation play mediating roles in this process. Furthermore, digitalization moderates the relationship between GPCE and CSDP. The breadth and depth of digitalization help weaken the negative marginal effect associated with excessive GPCE. The findings provide a more nuanced understanding of the nonlinear relationship between GPCE and CSDP and offer suggestions for alleviating the constraints associated with excessive GPCE.

Key words: corporate sustainable development performance, digitalization, exploitative innovation, exploratory innovation, green patent citation embeddedness

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* Author to whom all correspondence should be addressed: e-mail: charlottevuanhgd@163.com