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SUSTAINABLE INNOVATION IN CHINESE MANUFACTURING: EXPLORING THE NEXUS OF ENVIRONMENTAL RESPONSIBILITY, R&D HETEROGENEITY AND PUBLIC AWARENESS

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Abstract

This study explores the complex interplay between public awareness, technological innovation, and environmental responsibility in Chinese manufacturing firms. Although China has improved its ability to innovate technologically, this study examines how environmental responsibility influences innovation, paying particular attention to R&D heterogeneity and the moderating impact of public awareness. According to the empirical findings, environmental responsibility substantially impacts technological innovation and provides essential financial support through higher investment in environmental protection. It's interesting to note that this effect differs between technical innovation that is developmental and exploratory, highlighting the significance of R&D heterogeneity. Additionally, it is noted that public knowledge is crucial in amplifying environmental stewardship's beneficial impact on innovative performance. This emphasizes public perception's importance in determining how environmental responsibility efforts affect innovation. Overall, this study broadens the scope of enterprise ambidextrous innovation behaviour and deepens our understanding of the elements influencing enterprise characteristics in technological innovation. Enterprise managers are also affected by the ramifications and are urged to invest in and promote innovation through environmental responsibility. Promoting technical proficiency in the manufacturing sector also requires a renewed emphasis on exploratory technology innovation and the promotion of collaborative models among businesses, universities, governments, and users.

Key words: environmental responsibility, environmental investment, exploratory hormone innovation, innovation performance, technology innovation

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