

Digital Transformation and Environmental Disclosure in Industrial Firms: The Moderating Role of the Top Management Team

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Abstract : As industrial enterprises are the primary source of national pollution, environmental information disclosure is a crucial way to demonstrate to stakeholders the work they have done in fulfilling their environmental responsibilities and accepting social supervision. In the era of the digital economy, many companies, actively embracing the opportunities that come with digital transformation, have begun to apply digital technology to information collection and disclosure within the enterprise. However, less is known about the relationship between digital transformation and environmental disclosure. This study investigates how enterprise digital transformation affects environmental disclosure in 643 Chinese industrial companies, according to information processing theory. What is intriguing is that the depth (size) and breadth (diversity) of environmental disclosure linearly increase with the rise in the collection, processing, and analytical capabilities in the digital transformation process. However, the volume of data will grow exponentially, leading to a marginal increase in the economic and environmental costs of utilizing, storing, and managing data. In our empirical findings, linearly increasing benefits and marginal costs create a unique inverted U-shaped relationship between the degree of digital transformation and environmental disclosure in the Chinese industrial sector. Besides, based on the upper echelons theory, we also propose that the top management team with high stability and managerial capabilities will invest more effort and expense into improving environmental disclosure quality, lowering the carbon footprint caused by digital technology, maintaining data security etc. In both these contexts, the increasing marginal cost curves would become steeper, weakening the inverted U-shaped slope between DT and ED.

Keywords : digital transformation, environmental disclosure, the top management team, information processing theory, upper echelon theory

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