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Strategic Directions for AI: The Role of CIOs and Boards of Directors

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Abstract

This paper applies upper echelons theory to investigate whether chief information officers (CIOs) and boards of directors affect the development of AI orientation, which represents firms' overall strategic direction and goals regarding the introduction and application of artificial intelligence (AI) technology. We tested our model using a dataset drawn from 1,454 publicly listed firms in China. Our findings show that the presence of a CIO positively influences AI orientation and that board educational diversity, R&D experience, and AI experience positively moderate the CIO's effect on AI orientation. Our *post hoc* analysis further demonstrates that these board characteristics represent contingencies that impact AI orientation but not conventional IT orientation. This paper contributes to the upper echelons literature and IT management research by offering contextualized arguments that explain new business and IT strategies such as AI orientation. Further, our findings suggest important implications about how to build top management teams and boards capable of effectively developing AI orientations.

Keywords: AI orientation, chief information officer (CIO), board of directors, board diversity, upper echelons theory, public firms