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Organized Complexity of Digital Business Strategy: A Configurational Perspective

YoungKi Park and Sunil Mithas

Abstract

How should firms configure organizational capabilities to achieve competitive advantage in complex digital environments? To answer this question, we investigate parsimonious configurations for high firm performance in digital environments characterized by organized complexity. We adopt a configurational perspective accompanied by a fuzzy-set qualitative comparative analysis (fsQCA) to explicate complex nonlinear relationships among key digital and non-digital capabilities in the form of conjunctural, equifinal, and asymmetric causation. With this approach, we shift attention from individual capabilities to configurations of capabilities to develop a better understanding of the complex role of IT in the digital world. Our analyses, using a rare and unique dataset of 376 observations for organizations in healthcare, education, manufacturing, and service sectors in the United States, reveal three key findings. First, IT-enabled information analytics capability alone is neither necessary nor sufficient in any configuration for high performance; however, it is an important component of the configurations in which it plays multifaceted roles varying from an enabling role in most contexts, to no role or a counterproductive role in other contexts. Second, we document a few parsimonious configurations emergent from complex nonlinear interactions among six organizational capabilities. Interestingly, these configurations often have an isomorphic structure that produces both high financial performance and high customer performance simultaneously. Third, the structures of configurations for high performance differ from those of not-high performance, suggesting an asymmetric view of causality that underpins organizational performance. Together, the findings provide implications for further research on complexity theory in digital business strategy, and for managers to view and redesign digital business strategy as configurations of IT and organizational capabilities.

Keywords: Complexity theory, organized complexity, complex system, digital business strategy, parsimonious configurations, organizational capabilities, information analytics capabilities, configurational approach, fuzzy-set qualitative comparative analysis (fsQCA)