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Leveraging Customer Involvement for Fueling Innovation: The Role of Relational and Analytical Information Processing Capabilities

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Abstract

How do IT-enabled capabilities influence firms' ability to leverage customer involvement and shape the amount of firm innovation? This study theorizes that effective processing and management of customer information flows requires organizations to possess "relational information processing capability" (RIPC) and "analytical information processing capability" (AIPC). Drawing on and extending the theories of absorptive capacity and complementarities in the context of innovation, we posit that RIPC and AIPC complement product-focused customer involvement (PCI) and information-intensive customer involvement (ICI) practices, respectively, to enhance the amount of firm innovation. To test our hypotheses, we collected archival data from more than 300 large U.S. manufacturing firms and mapped their RIPC and AIPC to specific IT applications.

Consistent with our theorizing, we find that RIPC positively moderates the relationship between PCI and amount of firm innovation and that AIPC positively moderates the relationship between ICI and amount of firm innovation. In further exploratory analysis, we find a positive three-way interaction between AIPC, RIPC, and PCI. Taken together, the results suggest that configurations of IT-enabled capabilities alone are not enough for innovation; instead, firms benefit more when specific configurations of IT-enabled capabilities are leveraged in unison with specific types of customer involvement. The study contributes to theory and practice by shedding light on important complementarities between specific types of customer involvement (PCI and ICI) and specific IT-enabled capabilities (RIPC and AIPC).

Keywords: Digital innovation, customer involvement, information technology, relational information processing capability, analytical information processing capability, business value of IT