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Reconfiguring for Agility: Examining the Performance Implications for Project Team Autonomy Through an Organizational Policy Experiment

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Abstract

Agile software development, a paradigm that emphasizes project team autonomy and the value of responding to changes over following standardized processes, has gained prominence in the software industry. Prior investigations on the adoption of agile paradigms for software operations and their performance implications have typically focused on isolated aspects of software development processes. In this study, we adopt a configurational perspective of software operations and assess the causal impacts of adopting an organizational policy that grants higher levels of autonomy to project teams. Building on the equifinality framework proposed in organizational studies, we posit that an organizational policy that provides higher levels of autonomy for software teams engenders performance-enhancing adaptations through agile reconfigurations of project operations. To test our hypothesis, we collaborated with a commercial software firm and collected data from a policy experiment at the firm. We examined project-level data spanning a four-year observation period during which the firm implemented a new policy that significantly reduced the hurdles for project teams to autonomously reconfigure their operations. The results support our postulation and shed light on how an organizational policy that provides greater autonomy to software teams for designing their context-specific project configurations can improve project performance.

Keywords: Agility, distributed software teams, software processes, project configurations, equifinality, policy experiment, information systems development, software engineering.