

Introduction and Research Problem

How do organizations continue to operate reliably while innovating when failure is not an option—and resources to experiment are severely limited? This question defines the reality for many organizations in emerging economies, where persistent constraints, institutional instability, and environmental volatility make conventional management approaches difficult to apply (Hoskisson et al., 2000; Meyer & Peng, 2016).

In these contexts, organizations cannot separate reliability from innovation or rely on resource-intensive experimentation. They must instead navigate both simultaneously, often under conditions where breakdowns carry immediate operational and societal consequences. Management practices developed in stable environments assume the availability of slack resources and institutional support, limiting their transferability across contexts (Kostova, 1999; Szulanski, 1996). As a result, organizations must develop locally workable practices that sustain operations while enabling adaptation (Bloom et al., 2010).

This tension is particularly pronounced in digital infrastructure, where reliability failures can disrupt entire systems, yet innovation is essential for expansion and responsiveness (Tilson et al., 2010). Organizational ambidexterity research frames this challenge as balancing exploitation (reliability) and exploration (innovation) (March, 1991), typically through structural or contextual approaches (O'Reilly & Tushman, 2013). However, these approaches assume conditions—such as slack and tolerance for experimentation—that are often absent under persistent constraint (Levinthal & March, 1993). While prior research shows that ambidextrous outcomes are achievable in such environments (Cao et al., 2009), it offers limited insight into how organizations practically navigate and sustain this balance over time (Raisch & Birkinshaw, 2008).

This study addresses that gap by examining how organizations achieve the integrated (co-produced) realization of reliability and innovation, in which actions that sustain operations also enable new capabilities, through evolving practices.

The research question guiding this study is: *How do organizations operating under persistent resource constraints achieve integrated operational reliability and innovation?* The study aims to develop a process-based explanation of how workable practices emerge, evolve, and stabilize to sustain reliability while enabling innovation.

Literature Review and Theoretical Foundation

This study integrates four literature streams: ambidexterity, emerging economy contexts, organizational action and learning, and pragmatist theory of action.

Ambidexterity research highlights the importance of balancing exploitation and exploration but emphasizes design-based solutions that assume slack and stability (March, 1991; O'Reilly & Tushman, 2013). Research in emerging economies confirms that ambidextrous outcomes are possible under constraint but focuses primarily on outcomes rather than mechanisms (Cao et al., 2009).

Process research shows that organizational outcomes emerge through patterns of action, experimentation, and learning, with routines both stabilizing and enabling change (Feldman & Pentland, 2003; Langley et al., 2013). Under constraint, actors rely on improvisation and bricolage to restore functionality (Baker & Nelson, 2005), and repeated responses may stabilize into shared practices.

Pragmatist theory explains how actors respond when routines fail: through situated inquiry, experimentation, and consequence-based learning (Dewey, 1938; Lorino, 2018).

Integrating these perspectives suggests that ambidexterity under persistent constraint may be understood as an emergent, practice-based accomplishment rather than a product of deliberate design. When established practices become unworkable, actors enact necessity-driven departures from existing routines. Through experimentation and consequence-based learning, these departures may gradually stabilize into shared practices that sustain operations while enabling new capabilities.

Methodology and Research Design

The study employs a longitudinal qualitative case study (Yin, 2003; Langley, 1999) of a leading digital infrastructure firm (“DIF”) in an emerging economy over 15 years (2008–2023), enabling analysis of processes unfolding over time. A single-case design supports in-depth process tracing and mechanism development (Eisenhardt, 1989). The case is theoretically appropriate due to persistent constraints, high reliability requirements, and demonstrated reliability–innovation outcomes.

The study employs the Departure-Based Pragmatist Action Framework (D-PAF) as a sensitizing analytical scaffold (Miles et al., 2014), guiding the identification of breakdown-triggered episodes involving: (1) breakdown - situations where established practices no longer produce workable outcomes; (2) departure from established practice; and (3) evaluation and adjustment. The framework remains analytically flexible and open to refinement, ensuring findings are grounded in empirical observation.

Data sources include interviews, archival materials, and external documents, enabling triangulation (Yin, 2018). Analysis follows an iterative inductive–deductive approach, combining coding, pattern matching, and longitudinal process tracing to develop a mechanism-level explanation.

Expected Contributions to Theory and Practice

This study advances ambidexterity research by shifting the focus from design-based solutions to practice-based mechanisms, demonstrating how reliability and innovation can be co-produced through evolving practices. It integrates pragmatist theory to explain action under breakdown and develops a mechanism-level explanation of integrated outcomes. The D-PAF framework contributes as a flexible analytical approach for studying action under constraint.

For practitioners, the study provides a process-oriented approach to navigating reliability–innovation tensions under constraint. It highlights how organizations can respond to breakdowns, enact necessity-driven departures, and stabilize workable practices—offering actionable guidance for sustaining operations while enabling innovation.

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