

Change Management for AI in Service Operations: A Paradox and Routine Dynamics Perspective

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Abstract

This research formulates a multi-level routine dynamics framework to elucidate how service organizations manage paradoxical tensions resulting from the adoption of artificial intelligence (AI). AI offers the potential for enhanced efficiency and innovation; however, it frequently presents conflicting demands—such as control versus flexibility or automation versus learning—that complicate conventional change management strategies. To tackle this issue, the study amalgamates perspectives from paradox theory, routine dynamics, and dynamic capabilities via a conceptual, theory-building methodology. The framework delineates four categories of AI-related paradoxes—performing, organizing, learning, and belonging—and aligns them with a hierarchical system of routines. It shows how navigating paradoxes happens over and over again on different levels, such as individual, routine, and organizational, and how routines have both ostensive and performative aspects. The paper also presents a "paradox-responsive scorecard" as a decision-support instrument to assess the efficacy of organizations in managing conflicting AI outcomes. The primary contribution of the study is to provide a systematic elucidation of how service organizations can oversee and facilitate paradox navigation across varying capability levels to improve decision-making processes during AI implementation.

Keywords

Change management, service operations, AI, paradox theory, routine dynamics

Biography

Abdulaziz Alshalfan is an Assistant Professor of Operations and Supply Chain Management in the Department of Information Systems and Operations Management at the College of Business Administration, Kuwait University. His general research centers on topics within operations and supply chain management with a particular emphasis on decision-making in complex environments. His work explores operational design and outcomes across various domains including medical, pharmaceutical, digital platforms, global trade, sustainability, and tourism. His work aims to contribute to the operational challenges facing Kuwait and the broader Middle East as the region pursues ambitious economic diversification and digital transformation agendas. He teaches courses in operations management, mathematical modeling, decision-making, and quality management. He received a Ph.D. in Supply Chain Management from Rutgers Business School, an M.S. in Industrial Engineering from Columbia University, and a B.S. in Industrial & Systems Engineering from the Georgia Institute of Technology.