

**DECISION SCIENCES INSTITUTE**

Organizational tensions in Industry 4.0 implementation: A paradox theory approach

**ABSTRACT**

While implementing Industry 4.0, organizational environments become more global, dynamic, and competitive, intensifying contradictory demands. This study draws on paradox theory to identify the main organizational tensions emerging during companies' Industry 4.0 transformation. First, a systematic review of 50 academic papers on organizational challenges in Industry 4.0 adoption is conducted. Second, a conceptual framework illustrates the main tensions in Industry 4.0 implementation using an inductive approach. The identified organizational tensions are categorized according to the learning, organizing, belonging, and performing categories proposed by paradox theory. Finally, the study suggests implications both to Industry 4.0 theory and practice.

**KEYWORDS:** Industry 4.0, Organizational challenges, Managerial challenges, Tensions, Paradox theory