

# Unlocking Blockchain's Potential: Managerial Insights, Adoption Frameworks, and Blockchain Type Selection Guidance for Organizational Implementation

Authors

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# **Research Objective**

Blockchain technology, introduced over a decade ago, has emerged as a promising technology to efficiently manage multi-organizational business processes and facilitate trustless transactions across organizational boundaries. However, its adoption remains limited due to implementation challenges and lack of comprehensive guidance. Our research addresses these challenges through three interconnected studies aimed at bridging the gap between blockchain's potential and practical implementation, providing a framework for organizations to effectively implement, adopt, and utilize blockchain technology across business ecosystems.

## **Research Flow and Methodology**

The research follows a progressive three-stage approach where each study builds upon findings from the previous (figure 1):

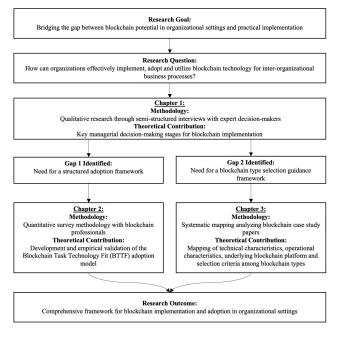


Figure 1- Research Flow

## Chapter 1-:

Through expert interviews, we identified seven key managerial decision-making stages for successful blockchain-based implementation of inter-organizational business processes management, along with the characteristics of suitable blockchain use cases and models for setting up blockchain networks based on business ecosystems (figure 2).



### Figure 2- Decision Making Stages for Blockchain Implementation

# Chapter 2:

We developed and validated the Blockchain Task Technology Fit (BTTF) framework, extending traditional adoption models with blockchainspecific factors, based on surveys with 282 blockchain professionals and decision-makers (figure 3).

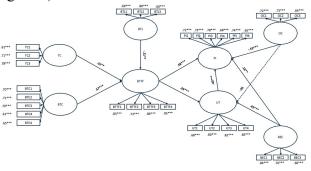


Figure 3- Blockchain Task Technology Fit (BTTF) Model

#### Chapter 3:

We conducted a systematic mapping of blockchain types in organizational settings based on case study papers. Of the 499 articles investigated, 51 passed the filtering stages and underwent detailed analysis of technical/operational characteristics, underlying blockchain platforms, and selection criteria for public, private. hybrid, and consortium blockchains (figure 4).

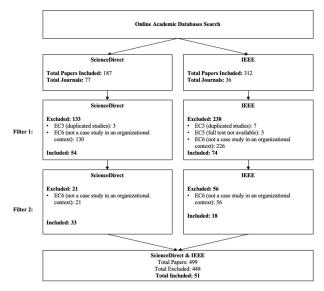


Figure 4- Paper Selection and Filtering Process

#### Conclusion

We provide a comprehensive understanding of blockchain implementation in organizations through decision-making а structured framework, the BTTF model for adoption, and a systematic mapping of blockchain types, offering valuable insights for researchers and decision-makers to facilitate effective implementation, adoption and utilization of blockchain across business ecosystems.