

ABSTRACT

AMBIDEXTROUS AI GOVERNANCE FOR DRIVING SMARTCO'S DIGITAL TRANSFORMATION USING COBIT 2019 TRADITIONAL AND DEVOPS

Artificial Intelligence (AI) plays a vital role in accelerating digital transformation by fostering innovation and enhancing operational efficiency in the technology sector. This study investigates SmartCo, a technology company seeking to strengthen AI governance using an ambidextrous COBIT 2019 framework that integrates people, processes, and technology. The research adopts a Design Science Research (DSR) methodology, collecting data through interviews and questionnaires with key stakeholders, supported by internal document analysis until data saturation was achieved. Governance and Management Objectives (GMOs) were prioritized using a structured approach that considered design factors, DevOps practices, relevant regulations (ICT Minister Regulation No. 5/2021 and SOE Minister Regulation No. PER-2/MBU/03/2023), and prior research. The prioritization results highlight improvement needs across seven capability components: processes, organizational structure, information, people and competencies, principles and policies, culture and behavior, and services, infrastructure, and applications. The capability maturity assessment revealed gaps in process documentation, organizational structure, third-party security assessments, and clarity of roles. To address these, the study proposes improvements such as formalizing responsibilities roles, enhancing endpoint security procedures, strengthening training and awareness programs. These measures are projected to increase the overall capability maturity level from 3.32 to 3.68. A comprehensive implementation roadmap is provided to guide SmartCo's governance enhancement efforts. This study offers actionable insights for organizations pursuing AI-enabled digital transformation and contributes to the growing body of knowledge on applying ambidextrous governance frameworks based on COBIT 2019.

Keywords: *Ambidextrous AI Governance, Digital Transformation, COBIT 2019, DevOps, DSS05, MEA03, APO01, Design Science Research*