

ABSTRACT

CLOUD GOVERNANCE APPROACH TO ENHANCE TELCO DIGITAL TRANSFORMATION USING AMBIDEXTROUS COBIT 2019: TRADITIONAL AND DEVOPS

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Cloud computing plays a crucial role in accelerating digital transformation in the telecommunications sector by enhancing operational efficiency, scalability, and service innovation. However, TelCos face challenges in aligning cloud adoption with effective governance, particularly in ensuring service continuity and operational resilience. This study proposes a cloud governance framework based on an Ambidextrous approach that integrates traditional COBIT 2019 components with the DevOps Focus Area. The methodology used is Design Science Research, with data collected through semi-structured interviews, validated by internal documents until data saturation was reached. Governance and Management Objectives (GMOs) were prioritized using the Ambidextrous COBIT 2019 approach, further reinforced by regulations and previous studies. The results identified three key GMOs: DSS05 (Managed Security Services), DSS04 (Managed Continuity), and BAI08 (Managed Knowledge). The improvement design is structured around three aspects: people (enhanced responsibilities, skills development, and awareness), process (policy and procedure development), and technology (recommendations for supportive feature additions). A total of 11 improvement recommendations were formulated based on an analysis of resources, risks, and value, and prioritized in an implementation roadmap. Estimates indicate an increase in the average capability value of the three priority GMOs from 3.52 to 3.89. This study is expected to contribute to both the practice and literature of cloud governance in the telecommunications sector.

Keywords: *Ambidextrous Cloud Governance, Digital Transformation, COBIT 2019, DevOps, Design Science Research, Case Study, Telecommunications*