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Bridging Service Quality and Architecture in Digital Banking: A Usability Framework Based on TOGAF ADM and E-Servqual

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Abstract

This study proposes a usability framework that bridges service quality and enterprise architecture in digital banking, focusing on PT Bank XYZ - one of Indonesia's leading banks. The research aims to address customer dissatisfaction with the PT XYZ Online application by aligning IT architecture with customer expectations. The study adopts TOGAF ADM (The Open Group Architecture Framework - Architecture Development Method) as the foundation for enterprise architecture design, customized through the integration of a satisfaction matrix derived from E-Servqual analysis. A mixed-method approach was applied, combining quantitative data from 100 customer questionnaires with qualitative insights from observation and literature review. The resulting satisfaction matrix corresponds to the business, information system, and technology architecture phases of TOGAF

ADM, providing a structured mapping of user experience factors to architectural domains. The findings indicate that PT XYZ's business and technology architectures demonstrate higher maturity (level 4), while data and application architectures remain at level 3. The study concludes with an enterprise architecture blueprint that guides future IT development, emphasizing continuous improvement of usability, system integration, and customer satisfaction in digital banking services.

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Author keywords

E-Servqual; Enterprise Architecture; information technology; mixed method; satisfaction matrix; TOGAF ADM

Indexed keywords

Engineering controlled terms

Architecture; Banking; Computer architecture; Information systems; Quality of service; User experience

Engineering uncontrolled terms

E-servqual; Enterprise Architecture; Indonesia; Mixed method; Satisfaction matrix; Service enterprise; Service Quality; Services Architectures; SERVQUAL; TOGAF ADM

Engineering main heading

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Abstract

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