

ABSTRACT

Accurate, transparent, and reliable data management has become one of the greatest challenges for organizations in the digital era. Well-managed data is essential to support strategic decision-making. One solution to ensure that every activity and modification to the data is properly recorded is through a robust audit trail management system. This study focuses on the development of an audit trail system using the Six Sigma approach, which adopts quality assurance principles to enhance data integrity and trustworthiness. The research is conducted using the DMAIC (Define, Measure, Analyze, Improve, Control) methodology and tools, encompassing various stages, including observation, data collection, problem analysis, and step-by-step solution development.

Keyword : Quality Assurance, Six Sigma, DMAIC, Penjaminan Mutu.