Perancangan Sistem Informasi dan Perbaikan Proses Pengadaan Material pada Kontraktor Minyak dan Gas = Designing Information Systems and Improving Procurement Processes in Oil and Gas Contractors

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Abstrak

Tingginya permintaan minyak dan gas mendorong kontraktor untuk meningkatkan layanan, termasuk ketepatan waktu proses pengadaan. Penelitian ini merancang perbaikan proses pengadaan di perusahaan kontraktor minyak dan gas menggunakan pendekatan Rekayasa Proses Bisnis dan perancangan sistem informasi. Proses to-be yang berhasil dirancang mampu mengurangi waktu proses dari 82,43 hari menjadi 66,74 hari (peningkatan 19%). Perbaikan ini mencakup integrasi sistem administrasi, pembaruan website, dan implementasi sistem informasi yang memungkinkan pelacakan data secara real-time. Tahap perancangan dilakukan dengan pendekatan System Development Life Cycle (SDLC), mencakup digitalisasi, integrasi data, otomatisasi proses, dan integrasi sistem. Hasil rancangan meliputi ERD, Relational Database, Use Case Diagram, DFD, dan Activity Diagram.

.....The high demand for oil and gas has driven contractors to improve their services, including the timeliness of procurement processes. This study aims to redesign the procurement process in an oil and gas contracting company using a Business Process Reengineering approach and information system design. Among six proposed scenarios, Scenario 5 was selected for its ability to reduce the procurement time from 82.43 days to 66.74 days (a 19% improvement). This improvement includes integrating administrative systems, updating the company website, and implementing an information system enabling real time data tracking. The design stage follows the System Development Life Cycle (SDLC) approach, covering digitalization, data integration, process automation, and system integration. The resulting designs include an ERD, Relational Database, Use Case Diagram, DFD, and Activity Diagram.