ABSTRAK

Penelitian ini bertujuan untuk menganalisis potensi adopsi teknologi blockchain dan smart contract dalam sistem pengadaan barang/jasa pemerintah. Latar belakangnya adalah kebutuhan akan transparansi dan akuntabilitas yang tinggi dalam mengelola dana publik, serta perlunya peningkatan integritas data dalam mengurangi praktik korupsi. Metode penelitian yang digunakan adalah pendekatan kualitatif dengan wawancara ahli, wawancara praktisi, dan studi literatur, serta pendekatan System Engineering Principle and Practice. Hasil temuan menyoroti permasalahan dalam proses pengadaan barang/jasa dan tantangan yang dihadapi dalam implementasi teknologi blockchain dan smart contract. Penelitian ini juga mengidentifikasi peluang dan tantangan signifikan untuk meningkatkan transparansi dan efisiensi melalui teknologi blockchain. Implikasi penelitian ini mencakup desain desain sistem pengadaan barang/jasa pemerintah berbasis blockchain dan smart contract, termasuk flowchart, kebutuhan pengguna, hak akses, mekanisme kerja, dan arsitektur jaringan.

Kata kunci: Blockchain, pengadaan barang/jasa pemerintah, tender, smart contract.

ABSTRACT

This research aims to analyze the potential adoption of blockchain technology and smart contracts in the government procurement system. The background stems from the need for high transparency and accountability in managing public funds, as well as the necessity to enhance data integrity to reduce corrupt practices. The research utilizes a qualitative approach involving expert interviews, practitioner interviews, literature reviews, and the System Engineering Principle and Practice approach. The findings highlight issues in the procurement process and challenges faced in implementing blockchain technology and smart contracts. The research also identifies significant opportunities and challenges to enhance transparency and efficiency through blockchain technology. The implications of this research include the design of government procurement systems based on blockchain and smart contracts, encompassing flowcharts, user requirements, access rights, operational mechanisms, and network architecture.

Keywords: Blockchain, government procurement, tender, smart contract.