

ANALISIS TANTANGAN HUKUM SMART CONTRACT DALAM PEMBENTUKAN KONTRAK BISNIS

Abstrak

Artikel ini membahas tantangan hukum yang muncul dalam penerapan *Smart contract* berbasis teknologi blockchain pada pembentukan kontrak bisnis di Indonesia. *Smart contract* menawarkan efisiensi, transparansi, dan keamanan dalam pelaksanaan perjanjian, namun implementasinya masih menghadapi berbagai kendala, seperti keterbatasan regulasi, isu legalitas penggunaan mata uang kripto, serta potensi sengketa akibat ambiguitas kode atau kerentanan sistem. Penelitian ini menggunakan pendekatan yuridis normatif dengan menganalisis peraturan perundang-undangan yang relevan, termasuk UU ITE, PP PMSE, dan PP PSTE. Hasil penelitian menunjukkan bahwa meskipun teknologi ini memiliki potensi besar untuk meningkatkan efisiensi transaksi di berbagai sektor, absennya regulasi khusus *Smart contract* menimbulkan ketidakpastian hukum. Artikel ini merekomendasikan pengembangan regulasi spesifik, peningkatan keamanan sistem, dan penyelesaian sengketa berbasis teknologi untuk mengoptimalkan penerapan *Smart contract* di Indonesia.

Kata Kunci: *Smart contract*, Blockchain, Regulasi, Kontrak Bisnis.

ANALYSIS OF LEGAL CHALLENGES OF SMART CONTRACTS IN THE FORMATION OF BUSINESS CONTRACTS

Abstract

This article discusses the legal challenges that arise in the application of Smart contracts based on blockchain technology in the formation of business contracts in Indonesia. Smart contracts offer efficiency, transparency, and security in the execution of agreements, but their implementation still faces various obstacles, such as limited regulations, the issue of the legality of using cryptocurrencies, and potential disputes due to code ambiguity or system vulnerability. This research uses a normative juridical approach by analyzing relevant laws and regulations, including the ITE Law, PMSE Regulation, and PSTE Regulation. The results show that although this technology has great potential to improve transaction efficiency in various sectors, the absence of specific Smart contract regulations creates legal uncertainty. This article recommends the development of specific regulations, improved system security, and technology-based dispute resolution to optimize the application of Smart contracts in Indonesia.

Keywords: *Smart contract, Blockchain, Regulation, Business Contract*