

Blockchain-Enabled Smart Contracts Revolutionizing Supply Chain Management: A Case Study

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Abstract: *Inefficiencies, a lack of transparency, and trust issues are common challenges in today's globalized and complex supply chains. Smart contracts combined with the decentralized, immutable ledger system of blockchain technology have made it appear like a viable answer to these problems. The application of blockchain-enabled smart contracts to supply chain management is examined in this research paper's case study. This study explores the potential of blockchain technology to improve supply chain efficiency, traceability, and transparency by closely examining a real-world case. This case study explores the planning, execution, and results of incorporating smart contracts and blockchain technology into different phases of the supply chain, such as manufacturing, distribution, logistics, and procurement. The study also addresses the advantages, difficulties, and lessons discovered during the implementation of blockchain-enabled smart contracts, offering insightful information to enterprises thinking about implementing such systems. The results demonstrate how blockchain technology has the ability to completely transform supply chain management by increasing stakeholder collaboration, lowering costs, minimizing risks, and fostering trust. This case study adds to the expanding body of research on supply chain management applications of blockchain technology and provides useful advice for companies looking to use blockchain technology to improve their operations and gain a competitive edge in the fast-paced market of today*

Keywords: Block, Cryptographic Keys, bitcoin, smart contract.