

Pharma Supply Chain System using Smart Contracts

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Abstract: *One of the major obstacles that the Internet retail industry faces is the widespread availability of counterfeit goods. These false goods imitate the look of real branded products, which poses a serious problem for both the industry and consumers. It's shocking to learn that about 30% of the things sold online are pharma. Blockchain technology has attracted more attention as a response to this expanding problem, providing creative ways to reduce the ubiquity of counterfeit goods. Supply chain authenticity and transparency are guaranteed by blockchain's decentralized and impenetrable structure. By offering a traceable and secure framework that protects customers from purchasing pharma items, this technology has the potential to completely transform the online retail industry. This paper proposes a decentralized blockchain solution to empower consumers in identifying the originality of the products independently of distributors. By establishing a blockchain network with anti-counterfeiting features, manufacturers can deliver goods without relying on traditional outlets, reducing quality assurance costs. The system utilizes blockchain technology to securely store product details, enabling verification against genuine information to identify counterfeit items. The verification procedure is streamlined by a smart contract-driven method, which enables producers to register items with distinct digital identities. Customers may use QR codes to confirm the genuineness of products.*

Keywords: Fraudulent goods, Quick Response (QR) code, Blockchain, smart contracts, decentralized