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Supply Chain Management in Agriculture Using Blockchain Technology

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Abstract: Block chains, now firmly established, are a digital system that combines data management, incentive systems, cryptography, and networking to enable the execution, recording, and verification of transactions between parties. Even while the original goal of block chain technology was to facilitate new forms of digital currency that would enable easier and more secure payment methods, they have enormous promise as a new foundation for all kinds of transactions. Agribusiness stands to gain a lot from this technology by leveraging it as a platform to conduct "smart contracts" for transactions, especially for high-value goods. Before we go any further, it is important to distinguish between distributed ledgers and block chain technologies and private digital currencies. Given the distributed and global character of digital currencies such as Bitcoin, it is improbable that central banks will be able to adequately oversee the underlying protocols. Monetary authorities are primarily concerned with understanding the "on-ramps" and "off-ramps" that comprise the links to the traditional payments system, rather than being able to monitor and manage the money itself. In contrast to the digital currency component of the block chain, the distributed ledger aspect holds great potential for application in trade and agriculture funding, especially in scenarios where multiple partners are involved and a dependable central authority is lacking.

Keywords: Advanced Encryption Standard, block-chain

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