Blockchain and Smart Contracts i n Agriculture

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Abstract

The 1990s word "fintech" refers to a rapidly evolving area that integrates technology with finance, revolutionizing the provision of financial services. Mobile devices, computer software, and digital currencies—such as Bitcoin and Dogecoin—are all utilized during this procedure. Technology has transformed farming methods, yet there are hurdles to wider adoption, especially in obtaining finance. This study examines the growth of fintech companies in the agriculture industry, emphasizing the challenges, opportunities, and changing trends in this field. For small-scale farmers and rural businesses, integrating Fintech and IoT into agriculture is essential since it provides advantages like workforce knowledge, support services, and strategic alliances that assist them access markets, credit facilities, and premium inputs while also increasing profits. The study highlights how, despite variations in access owing to infrastructure availability and educational attainment, a fintech provider has emerged especially for the agriculture industry. Agricultural fintech has encouraging development potential for an increasingly resilient agricultural industry despite barriers such poor infrastructure, education, an absence of competent labor, and regulatory deficiencies. The study presents a digital marketplace paradigm that incorporates FinTech features, particularly payment systems and crowd funding, to enhance agricultural sustainability. By bringing together all relevant parties on one platform-farmers, landowners, investors, and consumers—this model aims to increase transparency, give them greater authority, encourage creativity, and encourage public participation in agricultural activities, all of which will contribute to greater food security and sustainability. The study explores the significance of FinTech, in particular crowdfunding, in the agriculture industry. In addition to promoting greater effectiveness and flexibility in business models, it promotes agri-fintech's function as a mediator between investors and stakeholders and its sustainable financial approaches.

Keywords

Agri-Fintech, Digital Financing, Crowdfunding, Sustainable Agriculture Practices, Digital Village, Ecological Agriculture Technologies, Farmer Producer Organizations

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