



Blockchain Technology in Kenyan Tea Export Supply Chains: Insights into Economic Growth and Risk Mitigation Strategies

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Abstract

Blockchain technology has emerged as a promising tool for enhancing supply chain transparency in various industries, including agriculture. In Kenya, where tea exports are a significant economic activity, there is potential to leverage blockchain to address challenges such as inefficiencies and fraud. A qualitative research approach was employed, involving semi-structured interviews with key stakeholders such as exporters, government officials, and industry experts. Data were analysed through thematic content analysis to uncover insights into current supply chain practices and potential improvements. Semi-structured interviews revealed that blockchain technology could significantly enhance transparency by providing a secure, immutable record of transactions across the entire supply chain from farm to market. This improved visibility was particularly beneficial in reducing disputes over quality and authenticity. The findings suggest that integrating blockchain into Kenyan tea export supply chains can lead to substantial economic benefits through increased trust among stakeholders and reduced operational costs. However, challenges such as cost implications and resistance to change must be addressed for successful implementation. To maximise the potential of blockchain in Kenyan tea exports, it is recommended that initial pilots should focus on key sectors with high transaction volumes. Additionally, efforts should be made to educate and engage all stakeholders in understanding and adopting blockchain technology. Blockchain, Supply Chain Transparency, Economic Growth, Risk Mitigation, Tea Exporters

Keywords: *African Geography, Supply Chain Management, Blockchain Technology, Economic Development, Risk Analysis, Sustainability Practices, Ethnographic Research*

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