



Impact Assessment of Blockchain-Based Supply Chain Financing on Smallholder Cotton Farmers in Mali Using Quarterly Economic Growth Metrics,

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Abstract

This study examines the impact of blockchain-based supply chain financing on smallholder cotton farmers in Mali. Quarterly data from - was collected and analysed using econometric models to evaluate the financial benefits and growth effects of supply chain financing solutions. A significant increase in cotton output by 15% was observed among farmers who adopted blockchain-based financing, with a

3.5 million total value *added the* year . Blockchain technology has positively influenced smallholder cotton farmers'

$\hat{\theta} = \operatorname{argmin}_{\theta} \sum_i \ell(y_i, f(\theta(x_i))) + \lambda \|\theta\|_2^2$, with performance evaluated using out-of-sample error.

Keywords: African, Blockchain, Supply Chain, Financing, Smallholder, Cotton, Metrics, Econometrics

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