



# Blockchain Adoption in Secure Land Titling within Nairobi Slums,

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### Abstract

Blockchain technology has shown promise in enhancing transparency and security in various sectors, including land administration. However, its application in secure land titling within Nairobi slums remains underexplored. The study employed a systematic search strategy across multiple databases including Web of Science, Scopus, and Google Scholar. Eligible articles were identified based on predefined inclusion criteria related to blockchain adoption in land administration within Nairobi slums. A thematic synthesis approach was used to analyse the data. Blockchain technology has demonstrated potential for reducing fraud and increasing transparency in land transactions within Nairobi slums. However, challenges such as high transaction costs and lack of infrastructure remain significant barriers to widespread adoption. While blockchain presents opportunities for enhancing secure land titling in Nairobi slums, further research is needed to address existing challenges and ensure equitable access to its benefits. Policy makers should consider implementing pilot projects incorporating blockchain technology alongside traditional methods to validate its efficacy. Additionally, investments in infrastructure development are crucial to facilitate broader adoption. Model estimation used  $\hat{\theta} = \underset{\theta}{\operatorname{argmin}} \sum_i \ell(y_i, f_{\theta}(\xi)) + \lambda \|\theta\|_2^2$ , with performance evaluated using out-of-sample error.

### Keywords:

Kenya

Geographic

Terms:

Specific

Blockchain

Research

Topic:

Adoption

Methodological/

Scoping

Socioeconomic

Land

Theoretical

Administration

Terms:

Review

Impacts

Reform

*Note: These keywords are selected based on their relevance to the specific research topic and adhere to the constraints provided, while also being standard terms used in the field of Computer Science.*



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