



Evaluating Blockchain Technology in Land Registration Processes within Zanzibar’s Rural Communities of Angola: A Methodological Approach

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Abstract

This study considers the application of blockchain technology in enhancing land registration processes within Zanzibar’s rural communities in Angola. A mixed-methods approach was employed, integrating quantitative data analysis through a blockchain-specific model equation $Y = \beta_0 + \beta_1 X + \varepsilon$ where Y represents the number of successful transactions, X is the implementation period, and ε accounts for random errors with a standard deviation of $\pm 5\%$, to assess impact. A significant positive correlation was observed between the duration of blockchain implementation (X) and the proportion of completed land registration transactions (Y), indicating an increase in efficiency over time. Blockchain technology shows promise for enhancing land registration processes, though further research is needed to address potential challenges such as technological infrastructure limitations. Implementers should prioritise stakeholder engagement and ensure robust cybersecurity measures are in place before full-scale deployment of blockchain solutions.

Keywords: *Geographic, Rural, Community, Evaluation, Blockchain, Technology, Methodology*

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