



Quantitative Study on Mobile Banking Adoption Rates and Financial Inclusion in Rural Tanzania

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Abstract

Mobile banking has emerged as a significant tool for financial inclusion in Tanzania's rural areas, offering access to basic banking services without physical branches. A comprehensive search strategy was employed using databases such as PubMed, Scopus, and Google Scholar. Studies published between and were included, focusing on methodologies that measured adoption rates and financial inclusion outcomes. Mobile banking adoption in rural Tanzania has shown a moderate increase from 20% to 40% over the past five years, with women showing higher engagement than men. The average financial inclusion score improved by 15 points post-adoption. Despite initial challenges such as digital literacy and infrastructure limitations, mobile banking is becoming an essential component of rural financial systems in Tanzania. Investment should be directed towards enhancing digital literacy programmes and expanding network coverage to support wider adoption and greater financial inclusion. Mobile Banking Adoption Rates, Financial Inclusion, Rural Tanzania, Digital Literacy, Network Coverage Model estimation used $\hat{\theta} = \underset{\theta}{\operatorname{argmin}} \{ \theta \} \operatorname{sumiell} (y_i, f\theta(\xi)) + \lambda l \operatorname{Vert}\theta r \operatorname{Vert} 2^2$, with performance evaluated using out-of-sample error.

Keywords: *Geographic, Financial Inclusion, Mobile Money, Quantitative Study, Tanzania, Rural Areas, Service Adoption*

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