



Innovative Mobile Payment Solutions for Financial Inclusion in Rural Ethiopian Villages: User Satisfaction Scores and Frequency Outcomes Analysis

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Abstract

Mobile payments have emerged as a critical tool for enhancing financial inclusion in rural areas of Ethiopia, where traditional banking services are limited. A comprehensive search strategy was employed across academic databases, including PubMed and Web of Science, using keywords related to mobile payments and financial inclusion. Studies were included if they reported on user satisfaction scores and payment frequency data from rural Ethiopian contexts. User satisfaction with the mobile payment solutions varied, with a median score of 7 out of 10 indicating moderate levels of acceptance. Innovative mobile payment systems have shown promise in improving financial inclusion by addressing barriers to access traditional banking services. However, there is room for improvement in terms of user satisfaction and adherence to regular payment schedules. Future research should focus on developing more tailored solutions that enhance user engagement and compliance with payment frequency requirements. Model estimation used $\hat{\theta} = \operatorname{argmin}\{\theta\} \operatorname{sumiell}(y_i, f\theta(\xi)) + \lambda \operatorname{Vert}\theta_r \operatorname{Vert} 2^2$, with performance evaluated using out-of-sample error.

Keywords: *Mobile Payments, Rural Development, Financial Inclusion, Mobile Technology Adoption, Geographic Information Systems, Quantitative Research Methods, Geographic Analysis*

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