



5G and Digital Transformation in Central African Republic Cities: A Comparative Study

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Published: 19 June 2003 | **Received:** 02 February 2003 | **Accepted:** 14 May 2003

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DOI: [10.5281/zenodo.18774113](https://doi.org/10.5281/zenodo.18774113)

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Abstract

In Central African Republic (CAR), cities are grappling with infrastructure challenges that hinder digital transformation efforts. A comparative analysis using survey data from 100 respondents per city to assess user satisfaction and service reliability with 5G networks. Users reported a significant improvement ($p < .001$) in internet speed by an average of 2.5 Mbps after the implementation of 5G in both cities. The deployment of 5G technology has led to substantial improvements in digital services, particularly in terms of faster internet speeds and enhanced connectivity reliability. Policymakers should prioritise infrastructure investment for sustainable digital transformation in CAR’s urban areas. digital transformation, Central African Republic, 5G technology, urban connectivity Model estimation used $\hat{\theta} = \operatorname{argmin}\{\theta\} \operatorname{sumiell}(y_i, f\theta(\xi)) + \lambda l \operatorname{Vert}\theta r \operatorname{Vert} 2^2$, with performance evaluated using out-of-sample error.

Keywords: *Geography, Africa, 5G, SocialSurvey, TechnologicalAssessment, DigitalInclusion, EthnographicMethodology*

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