



The Role of 5G Technology in Facilitating Digital Transformation Across Cape Verdean Urban Environments: A Replication Study

Celsus Mendonça¹, Rafaela Cabral^{2,3}

¹ Department of Data Science, Jean Piaget University of Cape Verde

² Jean Piaget University of Cape Verde

³ University of Cape Verde

Published: 28 February 2026 | **Received:** 10 September 2025 | **Accepted:** 31 December 2025

Correspondence: cmendona@aol.com

DOI: [10.5281/zenodo.18702253](https://doi.org/10.5281/zenodo.18702253)

Author notes

Celsus Mendonça is affiliated with Department of Data Science, Jean Piaget University of Cape Verde and focuses on Computer Science research in Africa.

Rafaela Cabral is affiliated with Jean Piaget University of Cape Verde and focuses on Computer Science research in Africa.

Abstract

The rapid urbanization in Cape Verdean cities has necessitated innovative solutions to enhance connectivity and digital services. A systematic replication approach was employed, using existing datasets and methodologies from a prior study conducted in . The integration of 5G resulted in an average data transfer speed increase of 30% compared to the baseline scenario, highlighting its potential for urban services improvement. While preliminary results suggest significant performance enhancements, further research is needed to validate these findings across different urban settings. Investment in infrastructure and pilot projects should be prioritised to ensure widespread adoption of 5G technology in Cape Verdean cities.

Keywords: *African Geography, Digital Transformation, 5G Technology, Urban Informatics, Network Replication, Fifth Generation, Metropolitan Areas*

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