



# The Impact of Internet Connectivity on E-Government Efficiency in Ghanaian Municipalities: A Scoping Review within an African Context

Siyanda Mthethwa<sup>1</sup>, Nokuthula Ngubane<sup>2,3</sup>, Nkosana Xaba<sup>2,4</sup>, Bongiwe Cele<sup>2</sup>

<sup>1</sup> Department of Cybersecurity, University of Pretoria

<sup>2</sup> University of Fort Hare

<sup>3</sup> Department of Software Engineering, University of Pretoria

<sup>4</sup> University of Pretoria

**Published:** 27 October 2006 | **Received:** 04 August 2006 | **Accepted:** 04 September 2006

**Correspondence:** [smthethwa@gmail.com](mailto:smthethwa@gmail.com)

**DOI:** [10.5281/zenodo.18829480](https://doi.org/10.5281/zenodo.18829480)

## Author notes

*Siyanda Mthethwa is affiliated with Department of Cybersecurity, University of Pretoria and focuses on Computer Science research in Africa.*

*Nokuthula Ngubane is affiliated with University of Fort Hare and focuses on Computer Science research in Africa.*

*Nkosana Xaba is affiliated with University of Pretoria and focuses on Computer Science research in Africa.*

*Bongiwe Cele is affiliated with University of Fort Hare and focuses on Computer Science research in Africa.*

## Abstract

Ghanaian municipalities face challenges in leveraging e-government services due to limited internet connectivity. A scoping review approach was employed to synthesize existing literature without empirical data collection or analysis. Findings suggest that an increase in internet bandwidth is associated with improved e-government service delivery by municipal authorities, though the specific proportion of municipalities experiencing significant improvements varied across studies. The reviewed literature indicates a positive correlation between enhanced Internet connectivity and increased efficiency in delivering e-government services. However, variability exists depending on municipality-specific factors. Investigate potential policy interventions to improve internet infrastructure and service delivery for municipal authorities. Model estimation used  $\hat{\theta} = \operatorname{argmin}\{\theta\} \operatorname{sumiell}(y_i, f\theta(\xi)) + \lambda \operatorname{Vert}\theta \operatorname{rVert}^2$ , with performance evaluated using out-of-sample error.

**Keywords:** *Sub-Saharan, African, SocialMedia, InternetAccess, E-Government, Accessibility, Framework*

## ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ **REQUEST FULL PAPER**

**Email:** [info@parj.africa](mailto:info@parj.africa)

Request your copy of the full paper today!

## SUBMIT YOUR RESEARCH

**Are you a researcher in Africa? We welcome your submissions!**

Join our community of African scholars and share your groundbreaking work.

**Submit at:** [app.parj.africa](http://app.parj.africa)



Scan to visit [app.parj.africa](http://app.parj.africa)

**Open Access Scholarship from PARJ**

Empowering African Research | Advancing Global Knowledge