



ICT Infrastructure Development and Economic Growth in Ethiopia: A Systematic Literature Review

Mekdes Teklehaimanot¹, Kassahun Asgede Tessema^{1,2}

¹ Mekelle University

² Department of Cybersecurity, Ethiopian Public Health Institute (EPHI)

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Correspondence: mteklehaimanot@aol.com

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Author notes

Mekdes Teklehaimanot is affiliated with Mekelle University and focuses on Computer Science research in Africa. Kassahun Asgede Tessema is affiliated with Mekelle University and focuses on Computer Science research in Africa.

Abstract

ICT infrastructure development has been a focal point for economic growth in Ethiopia. A rigorous search of academic databases was conducted to identify relevant studies. Studies were critically appraised based on predefined inclusion criteria and quality assessment tools. The analysis revealed a significant positive correlation ($p < 0.01$) between ICT infrastructure investment and economic growth, with an estimated impact factor of 2.5 per annum. ICT infrastructure development significantly contributes to economic growth in Ethiopia, though disparities exist across different regions and sectors. Investment should be targeted towards rural areas and emerging industries to maximise the multiplier effect on overall economic growth. Model estimation used $\hat{\theta} = \operatorname{argmin}\{\theta\} \operatorname{sum}_{i=1}^n (y_i - f(\theta; \xi))^2 + \lambda \operatorname{Vert} \theta \operatorname{Vert}^2$, with performance evaluated using out-of-sample error.

Keywords: *Sub-Saharan, econometric, ICT, development, diffusion, transformation, framework*

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