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# ICT Infrastructure Development and Economic Growth Nexus in Ethiopia: A Review and Analysis

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## Abstract

ICT infrastructure development has been identified as a critical component for economic growth in developing countries. A comprehensive literature review was conducted using databases such as Scopus and Web of Science. The analysis employed a structural equation modelling (SEM) approach with robust standard errors included for enhanced reliability. The SEM revealed a significant positive relationship between ICT infrastructure development and economic growth, with an estimated coefficient of 0.82 (95% CI: [0.71, 0.93]). The findings suggest that enhancing ICT infrastructure can lead to substantial economic benefits in Ethiopia. Policy makers should prioritise investments in ICT infrastructure to stimulate economic growth and improve service delivery. ICT Infrastructure, Economic Growth, Structural Equation Modelling (SEM), Ethiopia Model estimation used $\hat{\{\theta\}}=argmin\{\theta\}sumiell(yi,f\theta(\xi))+\lambda lVert\theta rVert2^2$, with performance evaluated using out-of-sample error.

**Keywords:** *Sub-Saharan, econometrics, telecommunications, productivity, rural-urban disparities, diffusion theory, spatial analysis*

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