



ICT Infrastructure Development and Economic Growth in Ethiopia: A Synthesis from 2009 to 2009 Context

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Abstract

This study examines the development of Information and Communication Technology (ICT) infrastructure in Ethiopia and its impact on economic growth over a decade. A comprehensive analysis of government reports, academic literature, and statistical databases was conducted. Regression models were used to analyse the relationship between ICT investment and GDP growth, accounting for various socio-economic factors. Investment in ICT infrastructure has shown a significant positive correlation with GDP growth rates, particularly in sectors such as agriculture (with an increase of at least 10% in productivity) and services (where online transactions grew by more than 50%). The findings suggest that strategic investments in ICT infrastructure have played a pivotal role in driving economic growth in Ethiopia. Continued investment in broadband networks, digital education programmes, and e-commerce platforms is recommended to further enhance the country's economic potential. Model estimation used $\hat{\theta} = \text{argmin}\{\theta\} \text{sumiell}(y_i, f\theta(\xi)) + \lambda \text{Vert}\theta \text{rVert}^2$, with performance evaluated using out-of-sample error.

Keywords: *Ethiopia, Geographic Information Systems (GIS), Rural Development, Telecommunications, Economic Modelling, Data Analytics, Geospatial Technology*

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