



ICT Infrastructure Development and Economic Growth in Ethiopia: A Synthesis of 2001 Data

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Abstract

This study examines the relationship between Information and Communication Technology (ICT) infrastructure development and economic growth in Ethiopia, drawing on data from the year . The analysis employs a regression model to explore the relationship between ICT investment and GDP, incorporating data from various sources including government reports and surveys conducted by the Ethiopian Telecommunication Authority (ETTA). A significant finding is that an increase in ICT investment was associated with a 5% higher GDP growth rate. Additionally, telecommunications sector investments showed a stronger correlation with economic growth compared to other sectors. The study concludes that while there has been progress in ICT infrastructure development in Ethiopia since , the impact on overall economic growth remains moderate and could be enhanced through targeted policy interventions. Recommendations include increasing investment in telecommunications services, fostering innovation ecosystems to leverage ICT for productivity gains, and improving access to technology across rural areas. Model estimation used $\hat{\theta} = \operatorname{argmin}\{\theta\} \operatorname{sum}_{i \in I} \ell(y_i, f\theta(\xi)) + \lambda \|\theta\|_2^2$, with performance evaluated using out-of-sample error.

Keywords: Ethiopia, Geopolitical Stability, Telecommunications, Economic Development Models, Information Society, Digital Divide, Network Effects

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