



A Quasi-Experimental Framework for Assessing Adoption Rates in Ghanaian Regional Monitoring Networks Systems

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Abstract

Regional monitoring networks in Ghana have been implemented to improve energy access and efficiency. However, their adoption rates vary significantly across regions. The study employs a statistical model to analyse data from surveys conducted among stakeholders in four selected regions, using robust standard errors for uncertainty quantification. The quasi-experimental design provides a rigorous method to measure and compare regional monitoring system adoptions, offering insights into policy effectiveness. Future research should expand the study to cover more regions and include additional variables such as socio-economic factors and technological impact. The empirical specification follows $Y = \beta_{0+\beta} p X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *Sub-Saharan, GIS, econometrics, diffusion, validity, sampling, regression*

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