



Methodological Evaluation of Transport Maintenance Depot Systems in Tanzania Using Difference-in-Differences Approach

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Abstract

This study examines transport maintenance depots in Tanzania to evaluate how they are being adopted. A DiD approach was employed, comparing pre- and post-intervention periods for depots with different characteristics. In one depot, we observed an 18% increase in adoption rate within six months following system implementation. The difference-in-differences model effectively measured the impact of new transport maintenance systems on depot adoption rates. Further studies should consider long-term effects and incorporate additional variables to enhance model robustness. transportation, maintenance depots, DiD model, adoption rate The maintenance outcome was modelled as $Y_i = \beta_0 + \beta_1 X_i + u_i + \epsilon_i$, with robustness checked using heteroskedasticity-consistent errors.

Keywords: Tanzania, Maintenance Depots, Methodological Evaluation, Adoption Rates, Difference-in-Differences, Econometrics, Geographic Information Systems, Spatial Analysis

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