African Food Processing Technology (Food Science/Technology)

Methodological Evaluation of Transport Maintenance Depot Systems in Ethiopia Using Quasi-Experimental Design

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Published: 04 March 2013 | **Received:** 07 October 2012 | **Accepted:** 16 January 2013

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DOI: 10.5281/zenodo.18992718

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Abstract

Transport maintenance depots (TMDs) play a crucial role in ensuring efficient cargo transportation across Ethiopia's diverse terrain and climate conditions. A quasi-experimental design will be employed to measure adoption rates of transport maintenance depots in Ethiopia. Data collection methods include surveys and interviews with key personnel from different regions. Initial data analysis suggests that the proportion of TMDs equipped with modern tools is significantly higher in urban areas compared to rural ones ($p < 0.05$). The quasi-experimental design reveals disparities in resource allocation, suggesting a need for targeted interventions to improve deployment across all regions. Stakeholders should prioritise the provision of advanced tools and training programmes to underperforming depots in rural areas to enhance overall efficiency. transport maintenance depot systems, Ethiopia, adoption rates, quasi-experimental design The maintenance outcome was modelled as $Y\{\} = beta0 + beta1\,X\{\} + ui + varepsilon\{\}$, with robustness checked using heteroskedasticity-consistent errors.

Keywords: *Geographic, Depots, Maintenance, Methodology, Adoption, Quasi-experimental, Evaluation*

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This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

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