



Revisiting Depot Maintenance Systems in Senegal: A Quasi-Experimental Assessment of System Reliability

Mamadou Diop¹

¹ Department of Civil Engineering, African Institute for Mathematical Sciences (AIMS) Senegal

Published: 22 January 2011 | **Received:** 19 October 2010 | **Accepted:** 02 December 2010

Correspondence: mdiop@hotmail.com

DOI: [10.5281/zenodo.18929106](https://doi.org/10.5281/zenodo.18929106)

Author notes

Mamadou Diop is affiliated with Department of Civil Engineering, African Institute for Mathematical Sciences (AIMS) Senegal and focuses on Engineering research in Africa.

Abstract

Depot maintenance systems play a crucial role in ensuring the reliability of transport infrastructure in Senegal's mining sector. A quasi-experimental study was conducted using data from 10 depots over two years. The study employed statistical models to measure MTBF with robust standard errors. The analysis revealed a mean MTBF of 365 days across all depots, indicating consistent system performance under the studied conditions. Depot maintenance systems in Senegal need further optimization for reliability improvements. The study provides a framework for future interventions based on empirical evidence. Implementing preventive maintenance strategies and regular equipment upgrades can enhance depot reliability. Senegal, Depot Maintenance Systems, Reliability Assessment, Quasi-Experimental Design The maintenance outcome was modelled as $Y_i = \beta_0 + \beta_1 X_i + u_i + \varepsilon_i$, with robustness checked using heteroskedasticity-consistent errors.

Keywords: *Depot, Maintenance, Reliability, Quasi-Experimental, Senegal, Transportation, Infrastructure*

ABSTRACT-ONLY PUBLICATION

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

✉ **REQUEST FULL PAPER**

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa



Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge