

LOGISTICS AND SUPPLY CHAIN WHITEPAPER

From Kytabu <vivienne@kytabu.com>

To mirungu015@proton.me

Date Monday, September 29th, 2025 at 8:04 AM



Connecting Humans to AI

September
2025

CHAI HACKATHON

Data Fragmentation & Supply Chain

Transparency

A freight truck on an African highway illustrates how disconnected networks and paper trails slow goods movement. Across many African markets, logistics data are fragmented in silos (e.g. paper manifests, isolated Excel ledgers, unlinked ICT systems), obscuring visibility from source to destination. For example, Nigeria's 2023 Logistics Performance Index (LPI) score was only 2.6/5 (rank 88/139), reflecting severe gaps in customs, tracking, and infrastructure. These inefficiencies inflate supply chain costs by up to 30% and contribute to excessive delays (only ~15% of Nigerian roads are paved, causing port dwell times up to 20 days vs ~4 days in benchmark countries). Digital adoption is low: just ~12% of sub-Saharan logistics firms use digital platforms (vs ~68% in Southeast Asia), and interoperability between

government and industry systems is nearly nonexistent. As a result, actors often lack real-time tracking, cannot flag misroutes or theft, and struggle to forecast delays. The pain is felt across sectors (e.g. pharmaceuticals expire in transit, agri-food spoilage, counterfeiting of high-value goods).

- **Concrete examples:** Up to half of delivery effort is last-mile (as explained below), but even first-mile and mid-mile suffer from missing handoffs. In practice, a shipment might have a barcode scanned only at entry and exit points, leaving multiday gaps with no records.
- **Scale of impact:** Estimates suggest resolving data gaps could boost intra-African trade significantly; for instance, only ~12% of African trade is intra-continental, in part due to opaque cross-border flows.
- **Solution scope:** Viable prototypes include interoperable data dashboards and basic e-manifests. For example, a minimum-viable system could combine GPS trackers on trucks with a mobile/web dashboard that updates location, status, and scanned receipts at each checkpoint. Startups like Sokowatch and Twiga Foods show similar ideas: Sokowatch's mobile/SMS ordering links retailers and suppliers, giving instant stock visibility; Twiga's offline-capable mobile platform streamlines farmer-to-retailer flows and payments.

[View email in browser](#)

[update your preferences](#) or [unsubscribe](#)