

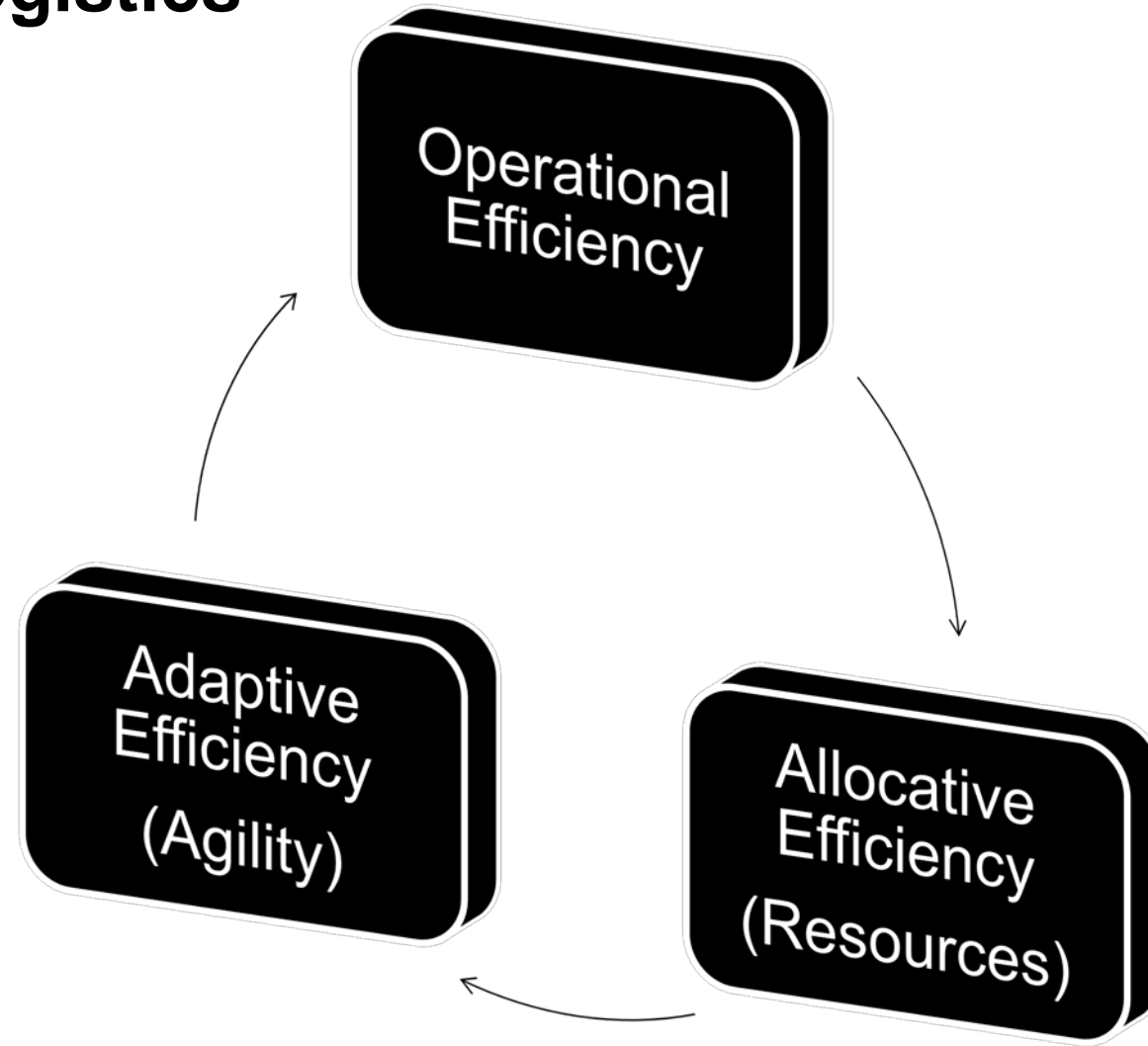


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10/26/2017

ISO Logistics, Maintenance, Repair, & Safety
ITCA Symposium

Honeywell
THE POWER OF CONNECTED

Efficiency in Logistics



Logistics Cost Drivers in ISO Management

- Time
 - For a large fleet, one week's delay over a cycle can cost \$250,000 in equipment cost
 - Delayed bookings
 - Idle equipment at depot
 - Delays in repair/testing
 - Re-positioning
- Regulatory Compliance
 - Inability to import/export heels of product
- Chassis Management
 - Poor maintenance
 - Inability to ground equipment
- Utilization
 - Testing

Vendor Quality – M&R

- Default rates at on-hire (lessor)
 - Some have reached as high as 70%
- Improper gaskets/torque procedures (mfg., depot)
 - Need of standard gaskets, lubrication, and torque process
 - Has led to releases, loss of product, inability to use leased equipment
- Improper inspection of chassis/ISO (depot)
 - Halts loading and transportation
 - Increases cost to plant and transportation
- Improper cleaning (depot)
 - Dangerous
 - Can result in loss of product or incident

Safety

- Vendors are handling chemicals/gases in the same manner as chemical plants.
 - Employee exposure, environmental aspects, and dangerous goods management
- PPE
- JSAs, Process
- Intrinsically Safe / Flammable Areas and Requirements
- Emergency Response
 - In depot or in-transport

Standardization and Process in M&R

- Firm adherence to an industry standard
- Industry led repair certifications for personnel and shop
 - Railcar industry requirements – external, valves, internal, etc.
- Forms
 - Requirement of industry standard for inspection/repair:
 - Structural integrity
 - Linings
 - Shop - component replacement or repair
 - Maintenance
 - Cleaning
 - What is clean?
 - Strict QA Process needed
- Safety standards across industry
- An accident by the vendor is a reflection on the company it serves.