Digital Dashboards In Terminal Operations Management

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What are Dashboards?

- **Technology Tools That Provide Real-Time Visualization of Critical Business Indicators to Help in Decision Making**
  - Provide a Visual “Snapshot" of Key Performance Indicators
  - Gain total visibility of multiple systems or measures instantly

- **Benefits of Digital Dashboards include:**
  - Ability to make more informed decisions
  - Align strategies and organizational goals
  - Ability to identify and correct negative trends
  - Measure efficiencies/inefficiencies
  - Ability to drill down into underlying causal indicators and details
  - Saves time compared to running multiple reports
### Operational vs. Analytical Dashboards

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<tr>
<th>Operational</th>
<th>Analytical</th>
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<td>• Identifies potential operational issues as they occur</td>
<td>• Gains insights from a volume of data collected over time</td>
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<td>• View of current activities and frequently changing performance metrics</td>
<td>• Understand what happened, why, and what changes should be made in the future</td>
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<td>• Provides alerts on exception issues, and drill-through to facilitate real-time response</td>
<td>• Sophisticated models, what-if analysis and pivots to identify patterns and opportunities</td>
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<td>• Require less training than analytical dashboards</td>
<td>• Often used by analysts and highly trained staff</td>
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Operational, or KPI dashboards tell you if you’re on target today. Analytical dashboards set targets for tomorrow.
Characteristics of Operational Dashboards

- **Visual Indicators and Alerts**
  - Graphics convey information “At-a-Glance“

- **Real-time Data**
  - Enables Right-Time Decision Making
  - Aggregates Multiple Data Sources into Composite Views

- **Alert System**
  - Visual Indicators and Alerts (Including Email, SMS, etc.)
  - Event-based or Scheduled Reports with Data

- **Actionable**
  - Identify in real time that action needs to be taken.
  - Drill-down and Causal Analysis to identify what action is needed

- **User-customizable (highly desirable)**
  - Operational dashboards are both “top-down” and “bottom-up” tools.

“Operational dashboards track core operational processes and emphasize monitoring more than analysis or management.“
- Performance Dashboards, Wayne Eckerson
Operational Dashboards in Terminal Ops

- Volumes
- Productivity
- S/T Demand forecasting
- Exception Event Alerts
- Technology
Case Study APL / Eagle Marine Services

- **Business Need**
  - To Manage Marine Terminals Effectively, Operations Management requires real time access to:
    - Equipment and labor productivity measures
    - Yard inventory conditions
    - Gate conditions

- **Current State**
  - Current systems do not provide this information in an immediate and visible manner.
  - Inefficiencies in production and avoidable expenses are incurred as a result.
Terminal Productivity

- One Central View
  - Vessel
  - Rail
  - Yard

- Eliminates Reports, Saves Time

- Facilitates Communication & Collaboration
Gate Conditions

- Labor Management
- Problem / Trouble Alerts
- Rapid Operations Response to Changes in Volume or Patterns, i.e. Load/Empty, Line, etc.
Short Term Demand – Last Free Day

- Measures Import Containers at or Approaching Demurrage, for:
  - Gate Manning
  - Yard Manning
  - Equipment Need
Technology

- Automation Technology
- How is it Performing?
- Rapid Response to Exceptions
- Minimize Operational Impact
A Few Words About Implementation

- **Executive leadership**
  - A dashboard project must have direction from the leadership.

- **Information Technology**
  - Unless all the data for the dashboard comes from non-IT administered systems, it is imperative to have IT support.

- **Viewers**
  - There are few if any successful ROI stories for dashboards that do not have viewers for whom an integral part of their professional success is supported by the dashboard.

- **Choosing Metrics**
  - The goal is to uncover the metrics and KPIs that lead the user to a specific decision or action.