Hyundai Glovis - Weekly Port In/Out Efficiency Dashboard (Truck Shipments Only)

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Tools: Power BI, MongoDB (via ODBC), DAX, Power Query

Project Overview

This dashboard helps track and improve operational efficiency for truck-based vehicle shipments at Hyundai Glovis. It analyzes the weekly ratio of outbound (shipped) to inbound (released) vehicles at each port, broken down by Port, Carrier, and Customer. The dashboard enables proactive identification of shipment delays and potential capacity bottlenecks.

Business Logic

- Data Source: VIN-level data from the internal MongoDB collection, queried via ODBC into Power BI.
- Shipment Filter: Includes only Truck shipments (TRANS_TYPE = 'Truck').
- Inbound Date: TENDER_DATE (when unit is ready to ship).
- Outbound Date: SHIPMENT_DATE (when unit departs).
- Grouping Logic: Events grouped by WeekStart (Monday), Port, Carrier, and Customer.

Key Features

- Weekly Outflow:Inflow Ratio tracker with trend visualization.
- Dynamic filters by Port, Carrier, Customer, and Week.
- VIN-level drilldown matrix for traceability.
- Alert Flags: Ratio drops and consecutive underperformance warnings.
- KPI cards and WoW ratio change indicators.
- Sparkline and bar chart visuals for recent trends.

Data Modeling Highlights

- Created separate InEvents, OutEvents, and MasterEvents tables for truck movements.
- Built WeeklyRatios_Truck summary table with calculated Outflow/Inflow ratios.
- Used unique VIN identifiers to prevent duplication.
- Scalable model design allows future expansion by region or dealer.

Business Impact

The dashboard replaces manual tracking processes and provides operations teams with real-time insight into weekly shipping performance. It supports decision-making by highlighting logistical inefficiencies and establishing a foundation for automated reporting and demand forecasting tools.