

## Power BI Dashboard – Data Visibility and Design Principles

### Dashboard File (Power BI .pbix):

<https://drive.google.com/file/d/1PXxWqyPSE5NYQwd1d6QTRpJUi3OiFvoA/view?usp=sharing> (The full, unformatted URL is provided to ensure manual copy/paste access, bypassing PDF hyperlink limitations.)

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### Overview

The **Delivery Performance Dashboard** was developed in **Power BI** to enhance analytical clarity, interactivity, and decision-making efficiency. It was designed as the final visualization layer of the *Fabric Medallion Logistics Pipeline*, translating data warehouse outputs into actionable business insights.

A series of **data visibility and user experience principles** were applied to ensure users can easily explore operational metrics, detect performance issues, and derive insights across different levels of detail.

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### 1. Consistent Visual Identity

The dashboard adopts **Ahamove's brand color scheme** for a cohesive and professional visual identity:

- **Ahamove Orange (#F37021):** used for alerts, highlights, and underperforming indicators.
- **Ahamove Blue (#004C97):** used for standard visuals and positive performance metrics.

This consistent color usage improves readability, strengthens brand alignment, and enhances user recognition throughout the dashboard.

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### 2. Target-Based Color Indicators

Each key performance indicator (KPI), notably **Average Lead Time**, **Acceptance Rate (AR)**, and **Fulfillment Rate (FR)** is color-coded according to its performance relative to defined thresholds:

- **Blue tones:** Metrics meeting or exceeding targets (positive performance).

- **Orange/Red tones:** Metrics falling below targets (areas of concern).

These color semantics enable users to **instantly identify performance gaps** without reading detailed numerical data.

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### 3. Comparative Visualization

Comparative charts illustrate **month-over-month changes** and **percentage variations** relative to KPI goals. This approach helps users observe **seasonal patterns**, such as the sharp **decline in AR during September and December**, and evaluate recovery trends in subsequent months.

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### 4. Highlighting Risk Zones

A **scatter plot visualization** highlights operational “risk zones” where certain KPI combinations (e.g., low FR and low AR) reveal inefficiencies. By emphasizing these clusters, users can **quickly pinpoint when and where operational performance deteriorates**, supporting faster and more accurate **root cause identification**.

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### 5. Interactive Performance Tables

Detailed performance tables list all operational entities (drivers, districts, suppliers) with their associated KPIs. To improve usability, **dynamic slicers** are implemented to filter and view:

- Top 5 / Top 10 performers
- Bottom 5 / Bottom 10 performers
- All records

This interactivity allows users to focus on specific performance segments instead of scrolling through lengthy datasets, improving efficiency and accessibility.

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### 6. Visualization Type Slicer (Order Layer)

A dedicated **visualization-type slicer** allows users to switch between:

- **Table View:** For detailed numerical analysis and ranking.

- **Spaghetti Chart View:** For time-series visualization and fluctuation analysis.

This flexible “order layer” concept supports **multiple analytical perspectives** within a single dashboard, catering to different user preferences and exploration styles.

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## 7. Hierarchical Drill-Down

A **hierarchical drill-down navigation structure** (Hitachi-style) enables deeper exploration of **time** and **customer dimensions**:

- Drill from **Month** → **Week** → **Day** for detailed temporal analysis.
- Drill by **Customer Segment** (Key Account vs. Retail) to uncover behavioral and performance variations across client types.

This multi-level drill-down allows both **high-level trend monitoring** and **granular diagnostic analysis**, enhancing decision-making precision.

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## 8. Conclusion

The Power BI dashboard represents the **business intelligence layer** of the project, integrating engineered datasets with interactive, human-centered visualization design. By combining consistent brand identity, intuitive data visibility, and analytical depth, the dashboard effectively transforms operational data into **actionable, performance-driven insights** for logistics management.