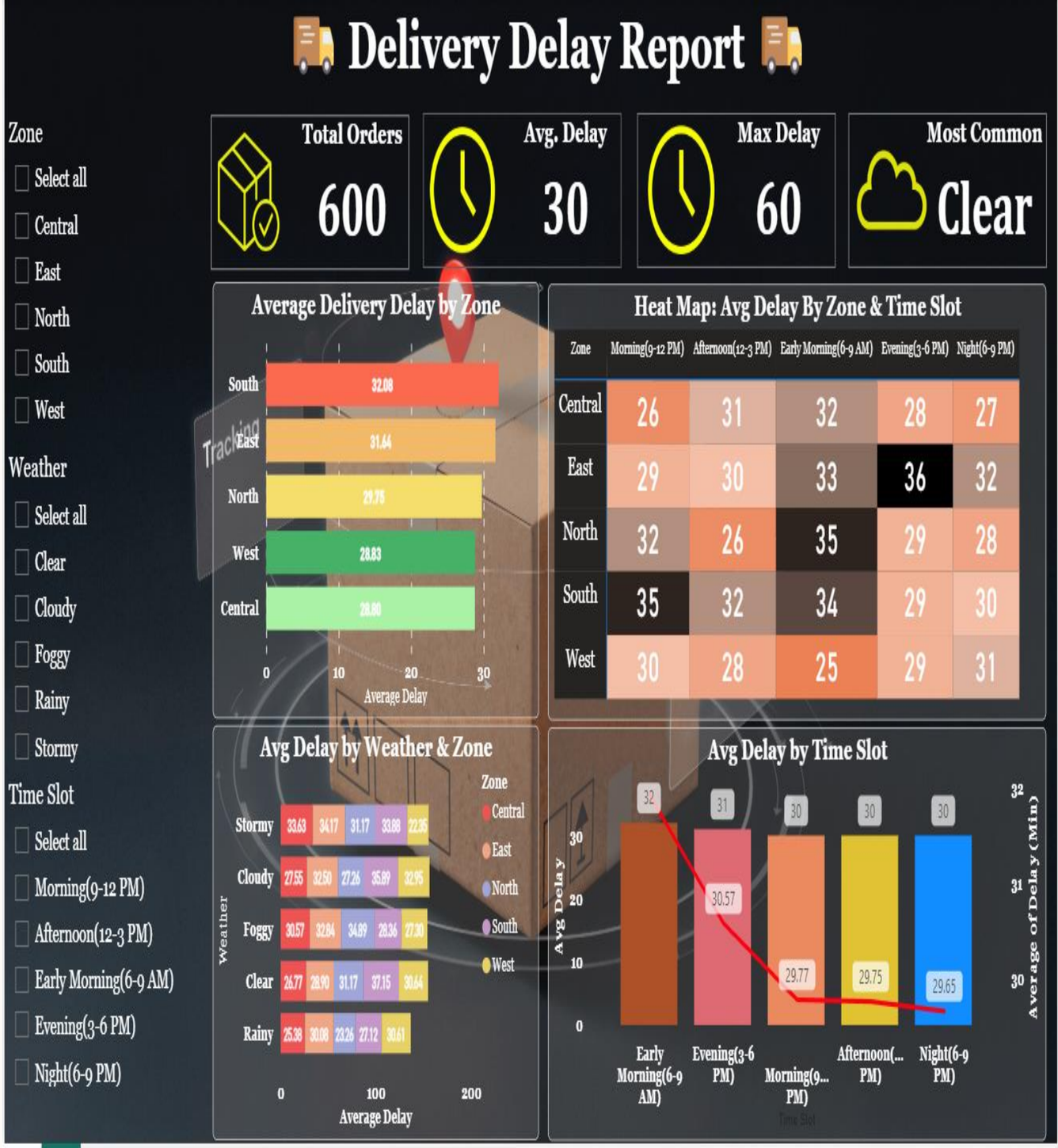
Delivery Delay Analysis

Presented by Richa Singh 15 August 2025



Dashboard Overview: Pinpointing Performance Gaps

This dashboard is engineered to provide a granular view of delivery performance, shifting from mere data display to actionable insight generation. It enables operations managers and data analysts to quickly discern underlying patterns in delivery delays, transforming raw data into strategic intelligence.

1

Purpose

To systematically identify and analyse recurrent delay patterns in delivery operations.

2

Key Features

Interactive slicers for Weather, Zone, and Time Slot; KPI Cards for summary metrics; and visualisations for trends and distribution.

3

Objective

Deliver precise, actionable insights aimed at enhancing overall delivery efficiency and reliability.

KPI Cards: At-a-Glance Performance Snapshot

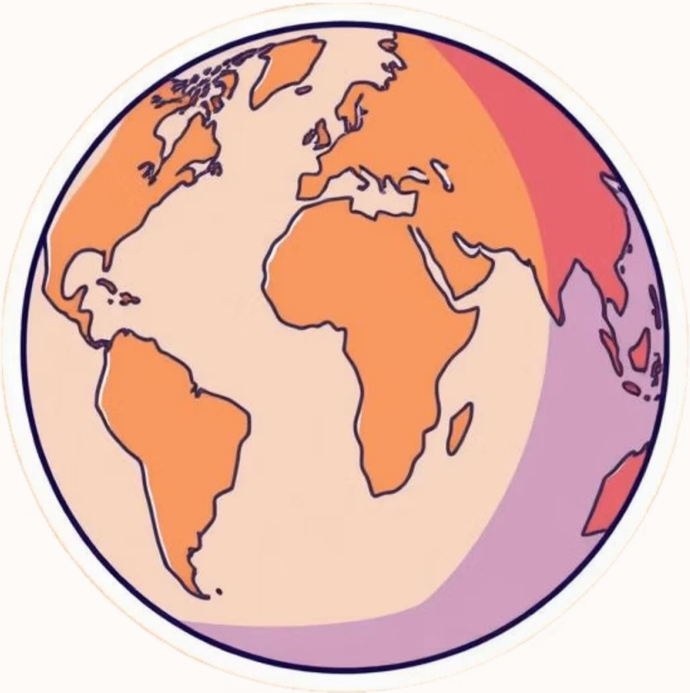
The KPI Cards are designed for immediate assimilation of critical delivery metrics, offering a rapid, comprehensive overview of operational performance. These high-level indicators allow managers to quickly gauge the current state of deliveries and pinpoint areas requiring closer examination.

600	30 Min	60 Min	Clear
Total Orders	**Average Delay**	**Max Delay**	**Most Common Weather**
Overall processed volume	Mean delay per order	Longest recorded delay	Dominant weather condition

These cards provide the foundational data points, setting the stage for deeper analysis into the causal factors behind delivery delays.

Interactive Slicers: Dynamic Data Exploration Exploration

The dashboard's interactive slicers provide unparalleled flexibility, enabling users to dynamically segment and refine the displayed data. This functionality is crucial for isolating specific variables and understanding their isolated impact on delivery performance.



1

Weather Slicer

Filter data by specific weather conditions.

2

Zone Slicer

Analyse performance within selected delivery zones.

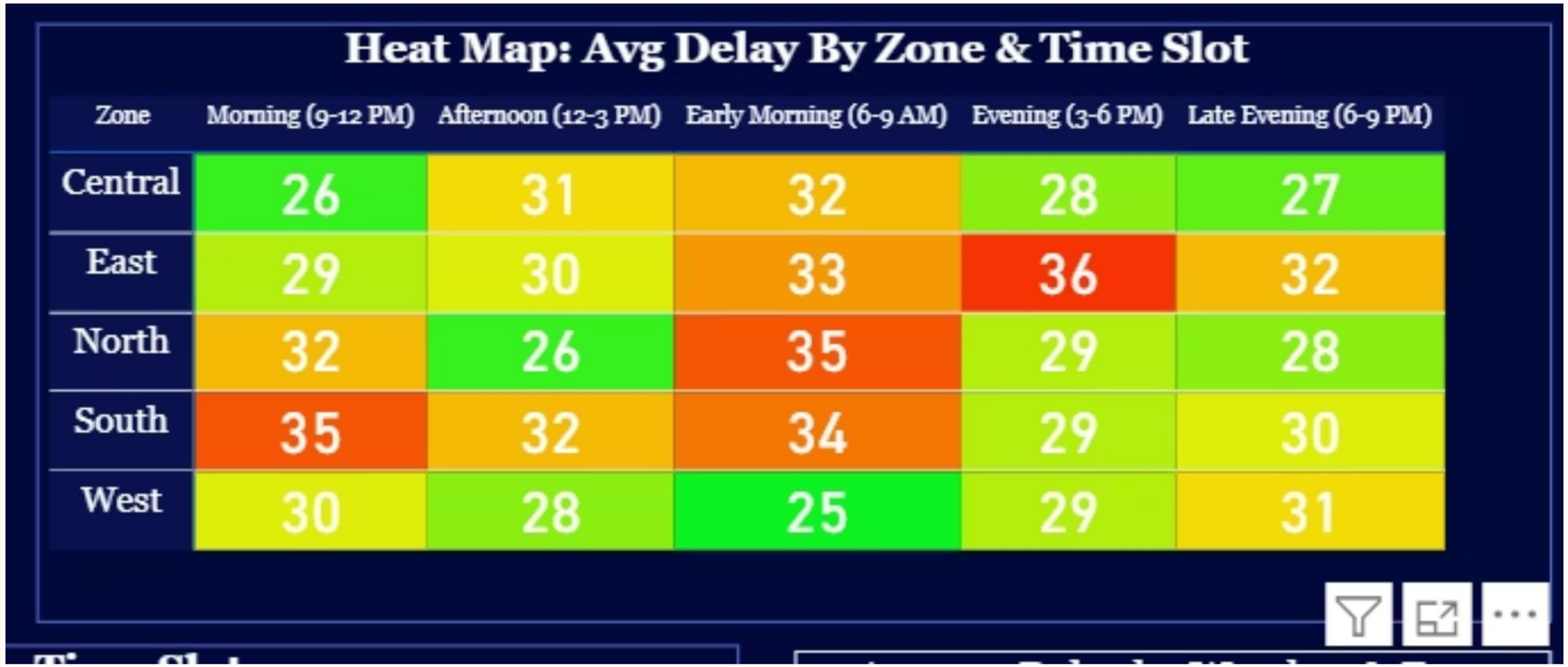
3

Time Slot Slicer

Focus on order data from particular times of the day.

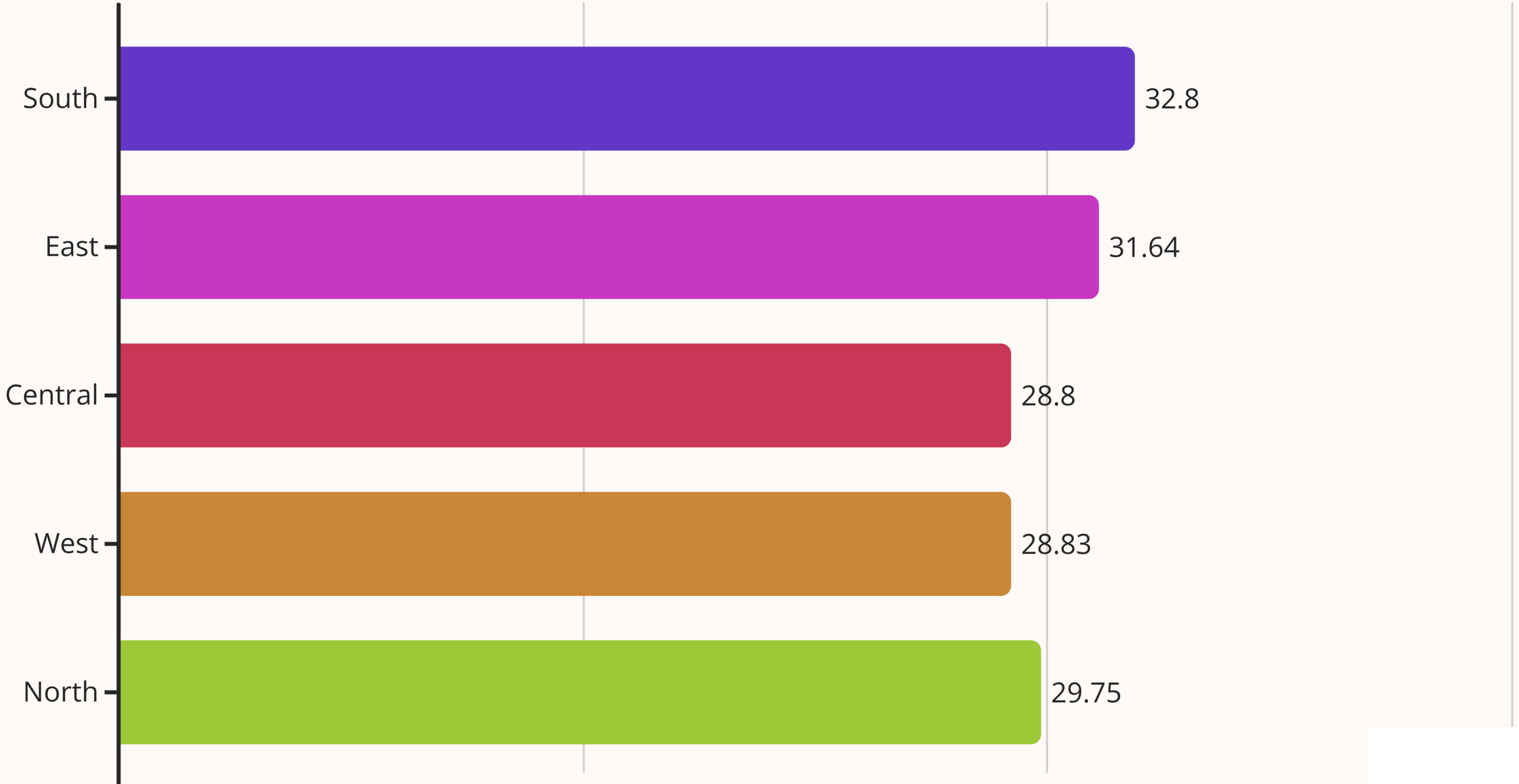
These filters empower users to conduct targeted investigations, uncovering nuanced insights that might otherwise remain obscured within the broader dataset.

Heat Map: Unmasking Delay Hotspots



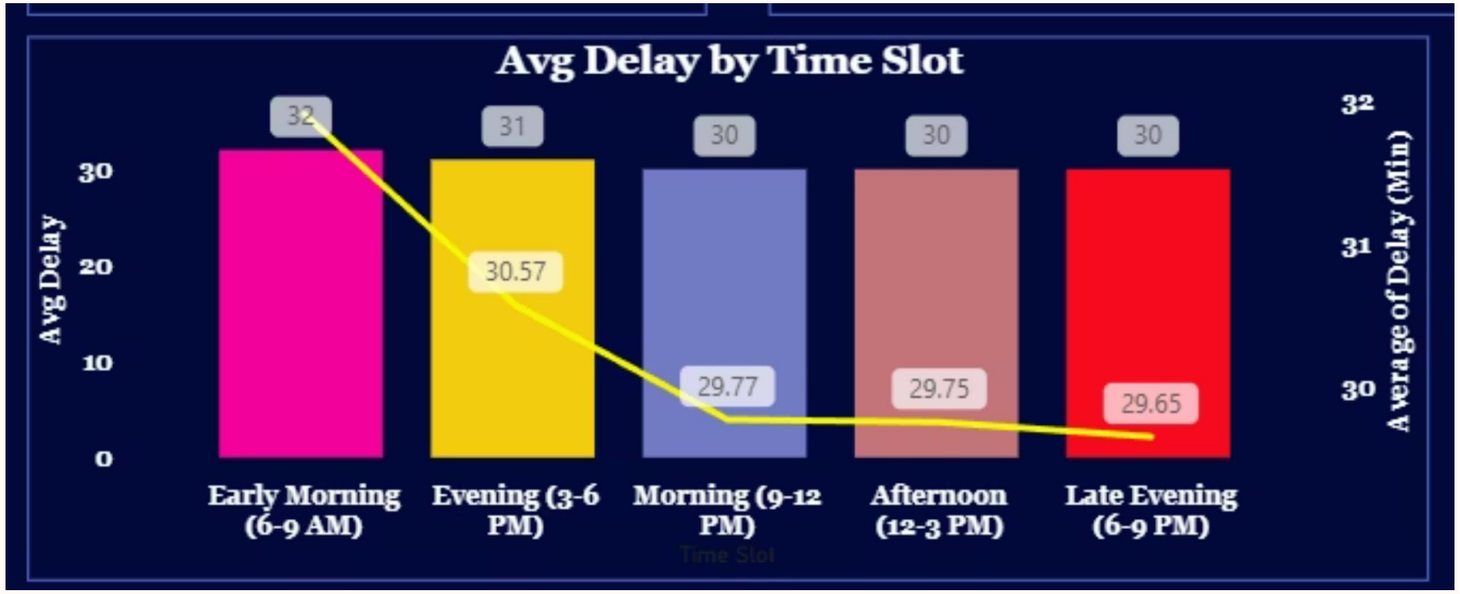
The Heat Map serves as a powerful visual diagnostic tool, offering an immediate identification of high-delay combinations of zones and time slots. Utilising colour intensity to signify delay magnitude, it highlights critical areas at a glance.

Bar Chart: Zonal Delay Comparison



Avg Delay by Time Slot

This chart illustrates the average delivery delays across different time slots alongside the consistent order volume. It provides a quick understanding of how specific periods of the day impact delivery efficiency. Please note that GML currently supports either bar charts or line charts, but not a combination of both. The chart below represents the average delay as a bar chart, with order volume included as a second data series.



As depicted in the chart, early morning and evening time slots consistently show slightly higher average delays of approximately 30.5 minutes. In contrast, afternoon deliveries are more efficient, averaging around 29.6 minutes. Despite these fluctuations in delay times, the order volume remains consistent across all periods, indicating that demand does not directly correlate with the observed delay patterns in this view.

Deeper Dives: Supplementary Visualisations

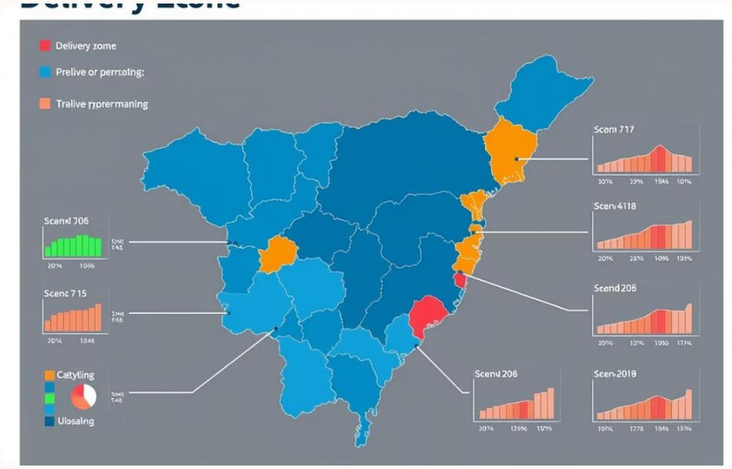
To complement the primary analyses, the dashboard incorporates additional visualisations, each designed to shed light on specific facets of delivery performance. These charts offer granular perspectives, allowing for a more holistic understanding of delay factors.

Weather-wise Delay Distribution

Illustrates how different weather conditions directly influence the magnitude and frequency of delivery delays.

Time Slot Analysis

Pinpoints specific peak delay times throughout the day, enabling optimised resource allocation during critical periods.



Zone Performance Overview

Provides a summarised breakdown of key performance metrics for each delivery zone, highlighting consistency or variance.

These visualisations offer the detailed context necessary for developing targeted strategies to mitigate delays across various operational dimensions.

Key Insights & Strategic Imperatives

Analysis of the Delivery Delay Dashboard has yielded several critical insights, guiding our strategic response to enhance operational efficiency. These observations highlight areas requiring immediate and sustained attention.

- **Targeted Zonal Issues:** High delays are consistently observed in specific zones, particularly during evening time slots, indicating localised bottlenecks.
- **Weather Impact:** Adverse weather conditions are a significant contributor to increased delay times across all operational areas.
- **Time Slot Inefficiencies:** Certain time slots exhibit consistent delays, irrespective of the order volume, suggesting systemic issues during these periods.

> ## Action Points
>
> Improve route planning in problematic zones, allocate more resources during peak delay slots, and proactively plan for adverse weather scenarios to minimise disruption.

Conclusion & Closing

Conclusion

- Dashboard provides clear insights into delivery delays.
- Time slots, zones, and weather factors help identify patterns.
- KPIs highlight key delay trends for decision-making.
- Enables businesses to optimize resources and improve customer satisfaction.

Thank You!

Prepared by [Richa Singh]

Email: Richasingh19072003@gmail.com

Git hub: richasingh157