# **Final Analysis Report: Amazon Delivery Dashboard**

**Overview:**  
This report presents a detailed analysis of Amazon's delivery data to understand operational efficiency, delivery patterns, and customer experience. The dashboard was created in Excel using pivot tables, slicers, conditional formatting, and multiple chart types to deliver interactive insights.

**Key Performance Indicators (KPIs):**

1. **Total Orders:** 43,594  
   Indicates the total number of deliveries recorded in the dataset.
2. **Average Delivery Time:** 124.91  
   Represents the average delivery time across all orders, regardless of category or weather.
3. **Average Agent Rating:** 4.64  
   Shows that delivery agents maintain high service standards.
4. **Most Common Category:** Electronics  
   Electronics is the most frequently ordered product category.
5. **Most Delivered Area:** Metropolitan  
   This indicates that most deliveries happen in metropolitan regions, likely due to population density and demand.

**Visual Insights from Charts:**

1. **Delivery Trend Over Months:**
   * A line chart shows a slight drop in average delivery time from February to April.
   * This suggests potential improvements in delivery processes or better weather/traffic conditions.
2. **Average Delivery Time by Category:**
   * A bar chart visualizes that categories like Cosmetics and Kitchen take longer to deliver.
   * This could be due to fragility or packaging requirements.
3. **Orders by Weather and Traffic:**
   * A stacked column chart highlights that adverse weather like fog and stormy conditions coincide with higher traffic levels.
   * This affects the volume and timing of deliveries.
4. **Orders by Area:**
   * A pie/donut chart confirms the dominance of metropolitan areas in total order volume, followed by urban and semi-urban areas.
5. **Agent Age vs Delivery Time:**
   * A heat map shows delivery counts by agent age.
   * Most deliveries are handled by agents aged 22 to 30.
   * Slight variations in delivery performance may be visible across different age groups.

**Filters (Slicers) Used:**

* Weather
* Category
* Vehicle

These filters allow users to interactively explore trends by specific conditions or product types.

**Recommendations**

1. **Optimize High-Time Categories:**
   * Investigate fulfillment challenges in categories like **Cosmetics** and **Kitchen** to reduce delivery time.
2. **Improve Traffic Handling Strategies:**
   * Plan deliveries in advance during **high traffic and bad weather** days to maintain performance.
3. **Focus on Metro Area Logistics:**
   * As **Metropolitan regions** dominate order volumes, invest in more warehouses or local hubs here.
4. **Monitor Young Agent Performance:**
   * Continue recruiting in the **22–30** age group due to high volume handled and consistent performance.
5. **Customer Experience Programs:**
   * Use high **agent ratings** to build trust and promote delivery satisfaction.
6. **Seasonal or Monthly Analysis:**
   * Conduct deeper time-based analysis (e.g., holidays) to pre-emptively handle spikes or delays.