

Uber Operations Analysis

The Uber Auto operations team lacked a single, reliable source of truth for monitoring operational performance. Key KPIs such as ride completion, cancellations, customer behavior, and revenue were fragmented across views and not consistently analyzed by vehicle type, payment method, or time period.

This limited the team's ability to:

- Monitor service quality in near-real time
- Identify root causes of lost bookings
- Prioritize operational and product improvements based on impact

This analysis is designed to deliver a unified analytics solution enabling operations leaders to monitor performance, diagnose issues, and prioritize actions.

DATA AND TOOLS

- A. Dataset: Uber Auto bookings with ride status, distance, vehicle type, customer ID, pickup/drop locations, payment method, and ratings.
- B. Tool: Power BI Desktop. Power BI Desktop, DAX for KPI definitions and Power Query for data transformation
- C. Output: Multi-page interactive dashboard with slicers and bookmarks designed for operational and management stakeholders.

DATA PREPARATION

1. Loaded raw CSV into Power BI and removed unused or duplicate columns.
2. Standardized numeric measures (distance, revenue) and enforced consistent data types for dates and categorical dimensions.
3. Designed a relational data model to support scalable analysis across vehicles, customers, and time.
4. Defined business-aligned KPIs using DAX, ensuring metric definitions were consistent and reusable.

DASHBOARD PAGES AND LOGIC

1. Overview (Ops health)

The first page provides an overall operations view, combining KPI cards for completed and lost bookings, total and average distance, and total revenue with monthly and quarterly trend lines for rides and revenue and bars for revenue by vehicle type and payment method; this lets an operations manager quickly see whether performance is improving, where demand is concentrated, and if any sudden drops or spikes need attention.

2. Vehicles page

This one focuses on product mix by showing each vehicle type with its customer count, revenue, completed bookings, contribution percentage, and a monthly mini-trend, so stakeholders can easily identify which options (Auto, Bike, Go Mini, etc.) drive most value and which underperform and may require pricing, promotion, or capacity changes.

3. Customers page

The customers page summarizes rider behavior by segmenting first-time, return, and regular riders, tracking customer volumes over time, listing key customers with their revenue and ride counts, and breaking cancellations down by reason, which supports decisions on retention campaigns, loyalty programs, and operational fixes for the main causes of lost bookings.

4. Distance / time behavior page

Finally, the distance and time-pattern view combines total distance KPIs with a time-slot-by-weekday heatmap and supporting bar charts for vehicle performance and customer payment behavior, helping operations teams understand peak windows, key corridors, and preferred payment methods so they can plan staffing, incentives, and monitoring around the periods and channels that matter most.

EXAMPLE INSIGHTS AND DECISIONS

- Vehicles: Auto and Bike generate the highest revenue and distance, indicating they should be prioritized for driver acquisition and marketing investment.
- Uber XL underperforms, suggesting a need for targeted promotions, pricing review, or reduced allocation.
- Customer mix: Regular riders drive a significant share of demand, while first-time riders remain substantial. Action: introduce referral and onboarding incentives to convert first-time riders into repeat customers.

- Lost bookings: Lost bookings are high relative to completed rides during specific periods, pointing to capacity or matching inefficiencies. Action: test zone-based incentives or dynamic pricing during affected months and time slots.
- Payments: UPI dominates transaction value, making it a single point of failure. Action: prioritize monitoring and contingency planning for payment system reliability.