

## Executive Summary

This project showcases an interactive Power BI dashboard developed to analyze the used bike market across India. By integrating a dataset of nearly 2,900 records covering various brands, models, fuel types, and regions, the dashboard offers clear visual insights into key performance metrics influencing buying and selling decisions.

### Key Findings:

- Fuel Efficiency & Usage: The average mileage stands at 67.19 km/L, with daily fuel consumption averaging 0.72 litres. Electric bikes show slightly higher daily usage compared to petrol and hybrid types.
- Engine Capacity: The mean engine capacity across all listed bikes is approximately 552.70 CC, balancing both commuter and performance models.
- Insurance Coverage: Vehicle insurance status is nearly evenly distributed, with 34.29% active, 33.21% not available, and 32.5% expired policies.
- Depreciation Trends: Average price depreciation shows variation based on the year of manufacture, with newer models generally retaining more value. A noticeable dip in resale value was observed for some models manufactured around 2020.
- Efficiency Score: Calculated as a ratio of mileage to engine capacity, the vehicular efficiency score fluctuates across manufacturing years but remains relatively stable, indicating consistent performance in newer models.
- Manufacturing Distribution: The dataset includes a diverse range of manufacturing years, with a notable cluster of listings from 2015–2024, highlighting market activity across nearly a decade.

### Strategic Value:

This dashboard equips users—dealers, analysts, and buyers—with real-time insights into how bike attributes influence resale value, operational efficiency, and regional demand. With intuitive filters and visuals, stakeholders can identify trends, optimize buying decisions, and assess long-term value retention with confidence.