

Insight Report – Cars24 Used Car Market Analysis

Project Objective

To analyze the **used car market data from Cars24** in order to understand brand performance, feature-driven pricing, market trends, and location-based insights. The aim is to extract **actionable business insights** for both sellers and buyers, and to demonstrate end-to-end skills in **Python (EDA), SQL-style analytics, and Power BI dashboarding**.

Key Findings

1. Market Overview

- **Total Cars Analyzed:** 8,000+ used car listings.
- **Average Price:** ₹8.6 lakh.
- **Average Car Age:** ~5 years.
- **High Supply Brands:** Maruti, Hyundai, and Tata dominate the supply.
- **Premium Brands:** Toyota and Mahindra fetch the highest resale prices.

2. Car Features Impact on Price

- **Body Type:** SUVs and Sedans command higher resale prices compared to Hatchbacks.
- **Fuel Type:** Diesel cars retain value better, while Petrol dominates supply. CNG/Electric vehicles show lower resale due to niche demand.
- **Transmission:** Automatic cars have higher average resale prices than Manual, though supply is lower.

3. Depreciation Trends

- **Car Age vs Price:** Cars depreciate steeply in the first **5 years**, then stabilize. SUVs retain value longer.
- **Distance vs Price:** Cars with **higher mileage show significant price drops**, especially Petrol variants.

4. Location Insights

- **Premium Markets:** Metros like TN-22 (Chennai), HR-51 (Faridabad), MH-01 (Mumbai) have the highest resale prices.
- **High Supply Markets:** Smaller cities/states contribute more listings but at lower prices → ideal for buyers looking for deals.

5. Buyer's Guide (*Best Value Cars*)

- **Top “Value for Money” Cars:** Identified using **Price per km** metric.
- Hatchbacks aged **3–5 years** with moderate mileage offer the **best deals** in the used car market.
- SUVs remain a good investment for resale value retention.



Business Impact

- **For Sellers:** Insights help in pricing strategy → knowing which features (SUV, Automatic, Diesel) can justify premium pricing.
- **For Buyers:** Identifies undervalued deals and ideal purchase locations.
- **For Dealers/Platforms:** Location and brand-based demand/supply insights can guide **inventory sourcing & marketing strategies**.



Tools & Skills Demonstrated

- **Python (EDA & Feature Engineering):** Data cleaning, transformation, and exploratory analysis.
- **SQL-style Queries (in Pandas):** Aggregations, grouping, correlations.
- **Power BI Dashboard:** Multi-page report with KPIs, bar charts, scatter plots, location insights, and best-value tables.
- **Business Storytelling:** Turning raw data into insights for decision-making.