

🚗 Toyota Sales Analysis Report

Executive Summary

This project analyzes Toyota vehicle sales data to understand pricing behavior, sales trends, vehicle performance, and factors influencing customer purchasing decisions. The objective is to generate **actionable business insights** that can support pricing strategy, inventory planning, and market positioning.

The analysis reveals strong relationships between vehicle features (engine size, mileage, year) and price, highlights top-performing models, and identifies opportunities for revenue optimization.

Business Objectives

- Analyze price trends across years and models
- Identify top-selling and high-value Toyota models
- Understand how engine size, mileage, and fuel type affect price
- Detect market demand patterns
- Provide data-driven business recommendations

Insights & Recommendations

Pricing & Value Analysis

🔍 Insights

- Average vs median price reveals **price skewness**.
- Price by model identifies **premium vs budget models**.
- Price by year shows **depreciation trend**.
- Highest resale value models reflect **market demand & brand strength**.
- Price buckets reveal **customer segments**.
- Overpriced/underpriced cars identify **mispiced inventory**.
- Price per engine litre highlights **value-for-money models**.

✓ Recommendations

- Focus inventory on **mid-priced models** (highest liquidity).
 - Promote high-resale models aggressively.
 - Use underpriced listings for **quick margin opportunities**.
 - Avoid overstocking overpriced models—they sell slower.
 - Use price-per-litre to market “best value” cars.
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Mileage & Depreciation

❑ Insights

- Average price drops as mileage increases.
- Sharp price decline usually occurs after **60k–80k miles**.
- Some models retain value even at high mileage.
- Mileage bands reveal **buyer sensitivity**.

✓ Recommendations

- Prioritize cars under **60k mileage** for resale.
- Discount high-mileage cars aggressively to increase turnover.
- Stock models that retain value even at higher mileage.
- Display mileage clearly in listings—buyers price it heavily.

Year / Age Analysis

❑ Insights

- Newer cars command significantly higher prices.
- Depreciation accelerates after **5–6 years**.
- Older cars (>10 years) stabilize at a budget price.
- Some models depreciate slower than others.

✓ Recommendations

- Acquire vehicles aged **3–6 years** (best margin + demand).
- Avoid heavy investment in very old cars unless ultra-low cost.
- Market “low age + low mileage” as a value bundle.
- Use depreciation trends for smarter pricing.

Engine & Performance

🔍 Insights

- Larger engines generally → higher prices.
- Smaller engines dominate listings.
- MPG positively influences resale price.
- Engine size + MPG define **running cost perception**.

✓ Recommendations

- Stock **1.5L–2.0L engines** (best balance).
 - Promote high-MPG cars as economical choices.
 - Avoid large engines unless positioned as premium.
 - Highlight running cost savings in ads.
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Fuel Type Analysis

🔍 Insights

- Petrol dominates volume.
- Hybrid cars have **highest average prices**.
- Hybrid listings increase in newer years.
- Diesel models underperform in pricing.

✓ Recommendations

- Increase hybrid inventory—they command premium pricing.
 - Reduce diesel exposure unless discounted.
 - Market hybrids as “future-proof”.
 - Track hybrid growth year-over-year for strategy.
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Transmission Analysis

🔍 Insights

- Automatic cars are priced higher than manual.
- Manuals dominate older and cheaper segments.
- Automatic demand aligns with comfort & urban buyers.

✓ Recommendations

- Prioritize automatic cars for resale.
- Price manual cars competitively to move stock faster.
- Highlight transmission in listings—it affects buyer choice.