



Toyota Used Car Sales

Discount Motors



18% sales declined in recent months

What we know: a car price **£1,500** above its “real” estimate won’t sell. Bad pricing equals lost sales.

The goal: Develop a pricing prediction system to accurately price cars

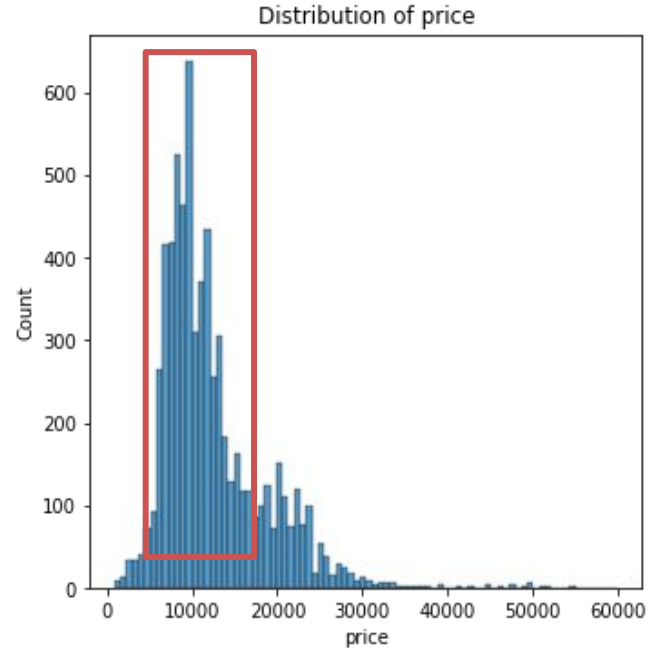
Best predictors of price: **engine size, year, miles per gallon** and **mileage**.

Pricing predictions within **£1,200** of the “target” price.

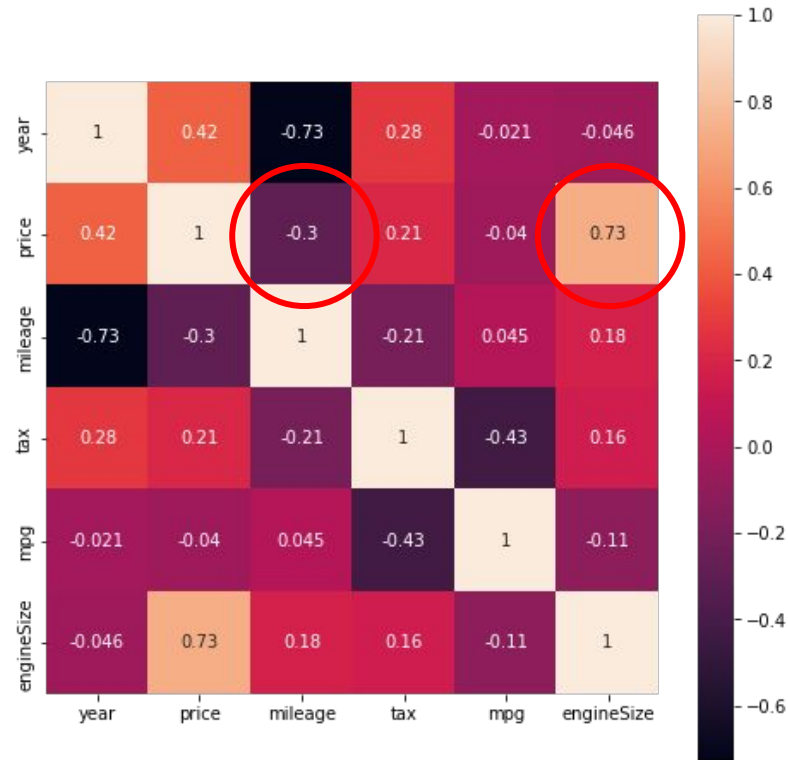
Follow-up: Monitor pricing predictions and improve it with the help of the sales team.

Data detective

- Most prices between roughly **£7,000** and **£17,000**
- Average price **£10,795**
- Maximum price **£59,995**
- Minimum price **£850**



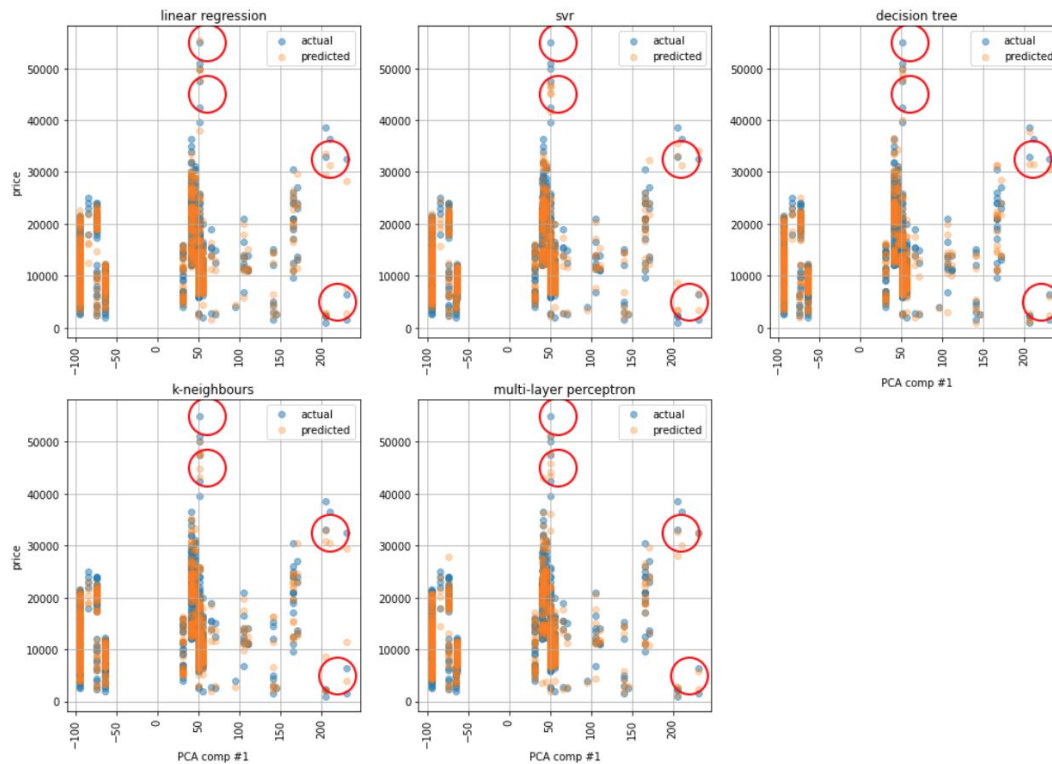
Hidden relationships



Building a pricing prediction



Nobody's perfect



The wisdom of the crowd



Improved pricing = improved sales

1. Mispriced cars won't sell. Prices must be within **£1,500** of the "expected" price
2. Best predictors of price: **engine size, year, miles per gallon** and **mileage**
3. Pricing prediction system is expected to give predictions within roughly a **£1,200** range from the "real" estimate
4. The system can be used right away to assist sales in pricing

Limitations and follow-up actions

1. Define a **strategy to handle mispriced predictions**.
2. Closer **collaboration with sales** to leverage their domain knowledge
3. Add **more data to improve predictions** e.g. current “appeal” of a car model on the market, general conditions of the car
4. Closely **monitor** the **pricing predictions** in collaboration with the sales team