Report

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After cleaning and exploring the data, exciting metrics were found.

First of all, we add more data as ***Liter consumed per type of gas*** *and* ***the cost per liter****, to be able to get better assumptions.*

The good news!

The managers of the company don't need to worry about being green and modern. Actually, this is the best option! Because it is not as expensive as they mentioned in the previous information!

The E10 gas is the best option for the company!

Based on the data analysis we found that by using E10 we can reduce the costs by 3% and even when the liter consume using E10 is more than 4% concerning the SP28, this is still worth it.

On the other hand, based on the data provided we generate a prediction model using ***linear regression*** *where based on the independent variables:*

- *Distance (Km)*
- *Speed (Km/h)*
- *Temp inside (T°)*
- *Temp outside (T°)*
- *Air-conditioning (yes/no)*
- *Rain (yes/no)*
- *Sun (yes/no)*
- *Gas Type (E10/ SP98)*

We could get the prediction of gas consumption (L/100 Km).

Also, we got the coefficients importance of the independent variables, resulting that variables like distance, rain, and Air-conditioning, having an important impact on the gas consumption predictive model.

Tricked-out cars use gas with a high cetane index, like unleaded 98 petrol in order to avoid delay/advancing in combustible injection (avoiding connecting rod pitting), but we have started to embrace petrol that adds ethanol in their formula, as they are cheaper. They use the same cetane index as more expensive petrol.

Without going into further detail (we could write an actual book about this) we think that going green and being modern can be very expensive, as we have seen that cars use more petrol than they used to for each trip.