# **STATS FINAL PROJECT EXCECUTIVE REPORT**

# **Project Title: Data Analysis of Different Cars from Dekho Website using Regression Analysis and time series forecast.**

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# Submitted By

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Description automatically generated with low confidence

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**Introduction:**

* The goal of this research is to create algorithms that anticipate automotive selling prices.
* We examined the outcomes of three different models for predicting automobile selling prices. Every automobile brand manufactures various types of cars, with a brand describing the kind of car (think of Honda Civic vs Honda Odyssey, one a compact car and the other a minivan). This dataset contains around 30 models.

**Major Findings:**

1. Care should be taken in buying cars from individual and dealer as there are a smaller number of trust-marked sellers.
2. People consider buying manual type of car rather than automatic because more addicted to traditional ones rather than latest models.
3. Highest number sales were observed in the new car models.
4. Most of these cars are owned by first owner which clearly represents the cars have less wear and tear so majority of buying the cars would be very high.
5. In the year 2017 car sales numbers are highest in number.
6. Mainly the selling price of the cars is varied of two factors they are kilometers driven and kilometers driven relation with years.

**Factors Effect on Car Prices​**

* When the kilometers driven get increased the selling price of the car decreases since there is negative correlation between these variables.
* As the latest car model costs high because of new features the cost is high in number.
* Price depends on model and Brand of the car
* Selling price and year are highly correlated
* There is a negative correlation between kilometers and price

**Data Analysis:**

* From the multiple regression analysis,

The estimated effect of Year on kilometers Driven is -0.00454, while the estimated effect of Selling Price on -0.001807.

Model is a good fit for the data and that there is no large variation in the model error.

* Performance of the model depends on the mean absolute percentage error they are indirectly proportional to each other lower the MAPE then the performance of the model is high.

**Recommendations:**

1. There should be increase in trust marked dealers so that people can buy the cars from them which ensures safety.
2. Automotive transmission selling cars needed to be increased because in future Most of the customers usually prefer auto gear rather than manual one.
3. Company should also focus in selling the old cars rather than always new models.
4. Company should also focus in increase in first owner seller cars so that majority of the cars will sell out and improves the company revenue.