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# Ubaar competition



# Goods transport industry is a very big and important industry

Transport costs have a major impact on the efficiency





# Problem definition

- In Iran, every day 80,000 shippers try to find carriers to transport their loads to their desired destination using a variety of trucks.
- As there are a variety of factors that affect price, setting a reasonable price is a real challenge
- Transport costs have a major impact on **efficiency**.

# Data source - Ubaar

1. Ubaar is **the biggest smart trucking platform** in Iran that matches carriers with shippers.
2. Ubaar has to offer a price that is reasonable to both shippers and carriers in a timely manner.
3. Thus, Ubaar has used machine learning to provide a transparent, fast & reasonable price.
4. The data comes from **<https://www.kaggle.com/c/ubaar-competition/>**

# Available features

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The most important features collected by the company are:

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Source and destination  
latitudes and longitudes

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Source and destination  
states

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Distance and time  
of the transport

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Vehicle type and option

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Weight of goods

# Conclusions



# Results



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We are able to predict the price with **MAPE = 16.1%**



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Is MAPE a proper metric? We should assure it correlates **with business objectives**



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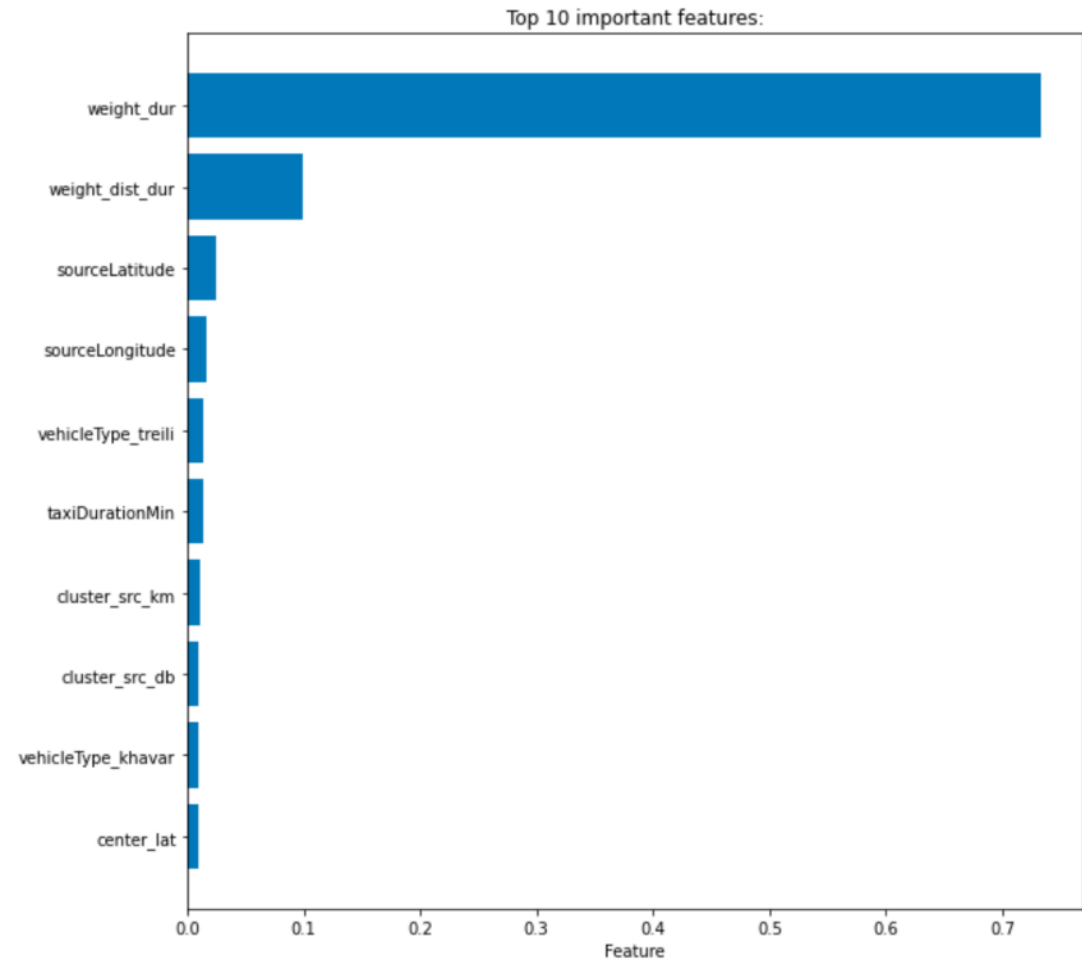
The results are stable in terms of:

- **Localizations** – most of the possible localizations are covered by data
- **Amount of data**
- **Vehicles** – types generally work similarly

# Main features

The features of the transport that affect the price most:

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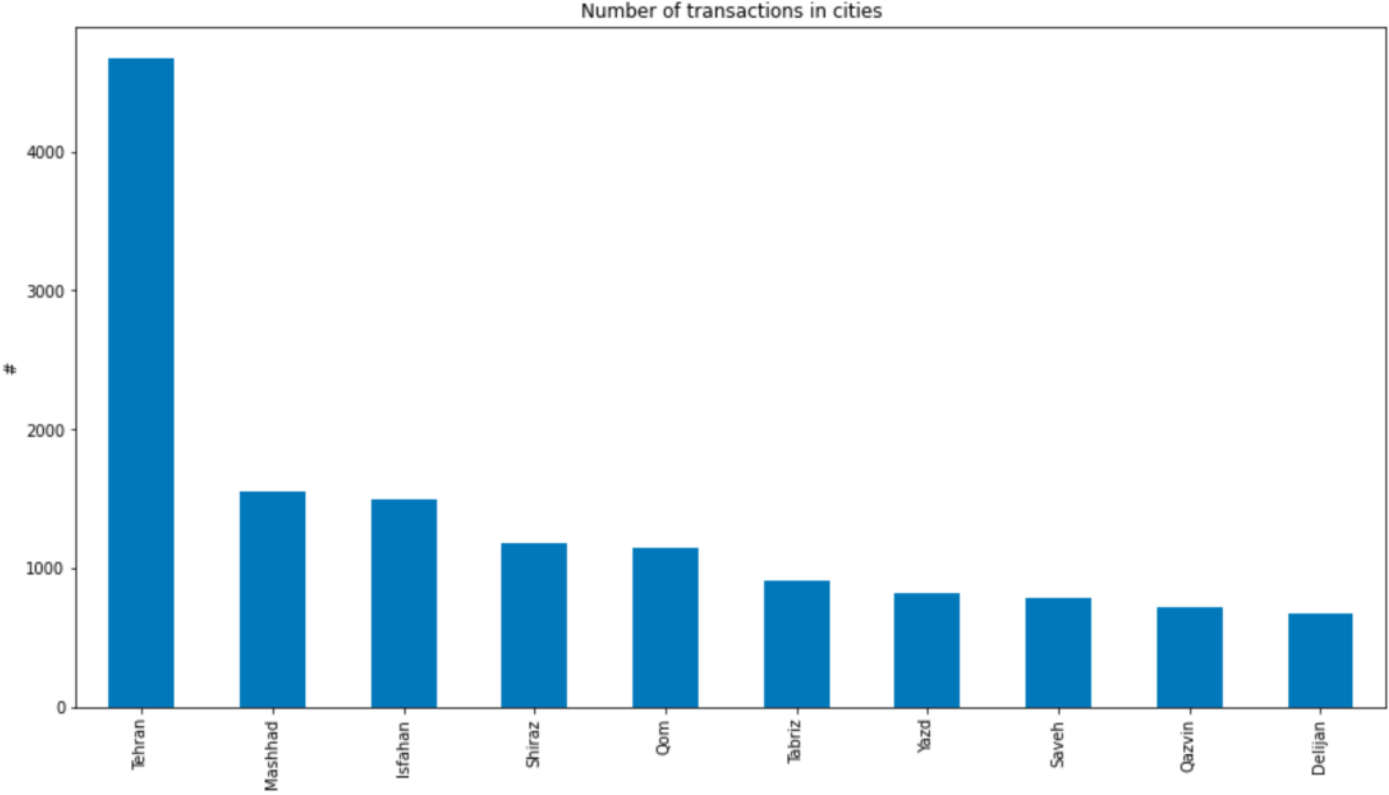
# Covered localizations



- Attachment: *train\_test.html*
- Most of the country localizations are covered in data
- After analysis independent test set we can see that no more transport sources emerge

# Most important localizations

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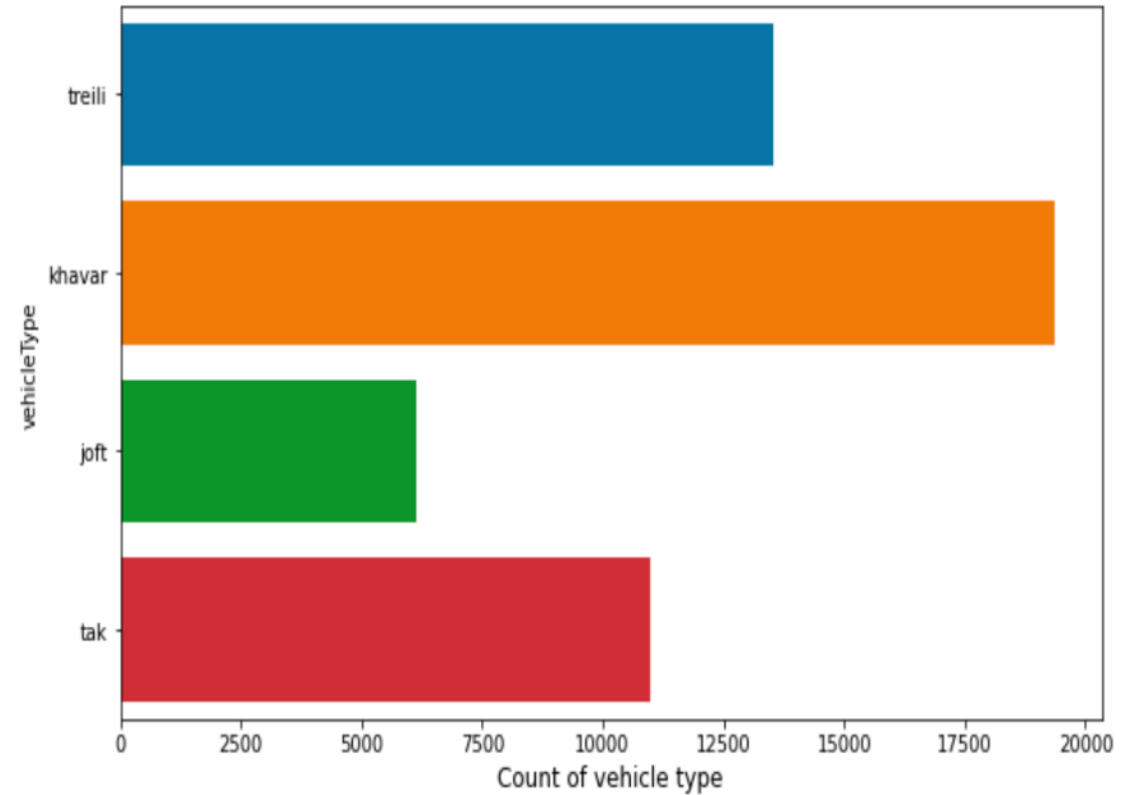
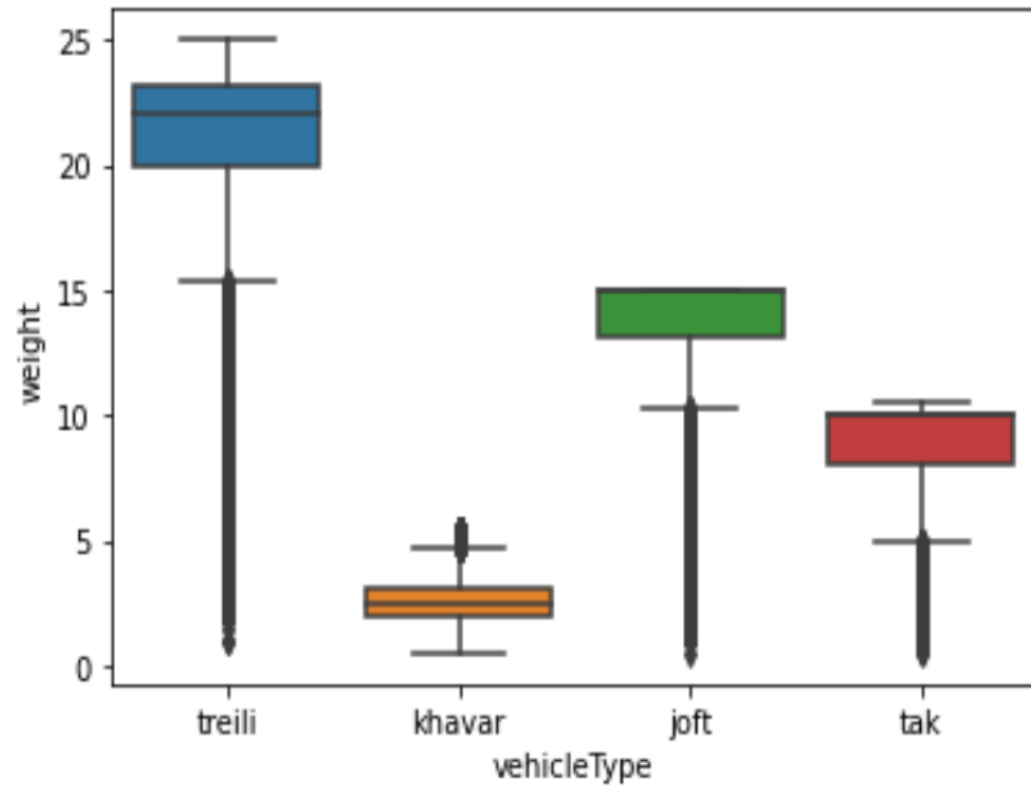
# The most expensive cities



- Attachment: [ave\\_prices.html](#)
- Clearly the cities on the south coast, especially on the eastern side, have the highest prices
- It is especially visible if the source of trip is there
- It contains average price for city and average price for city per kilometer

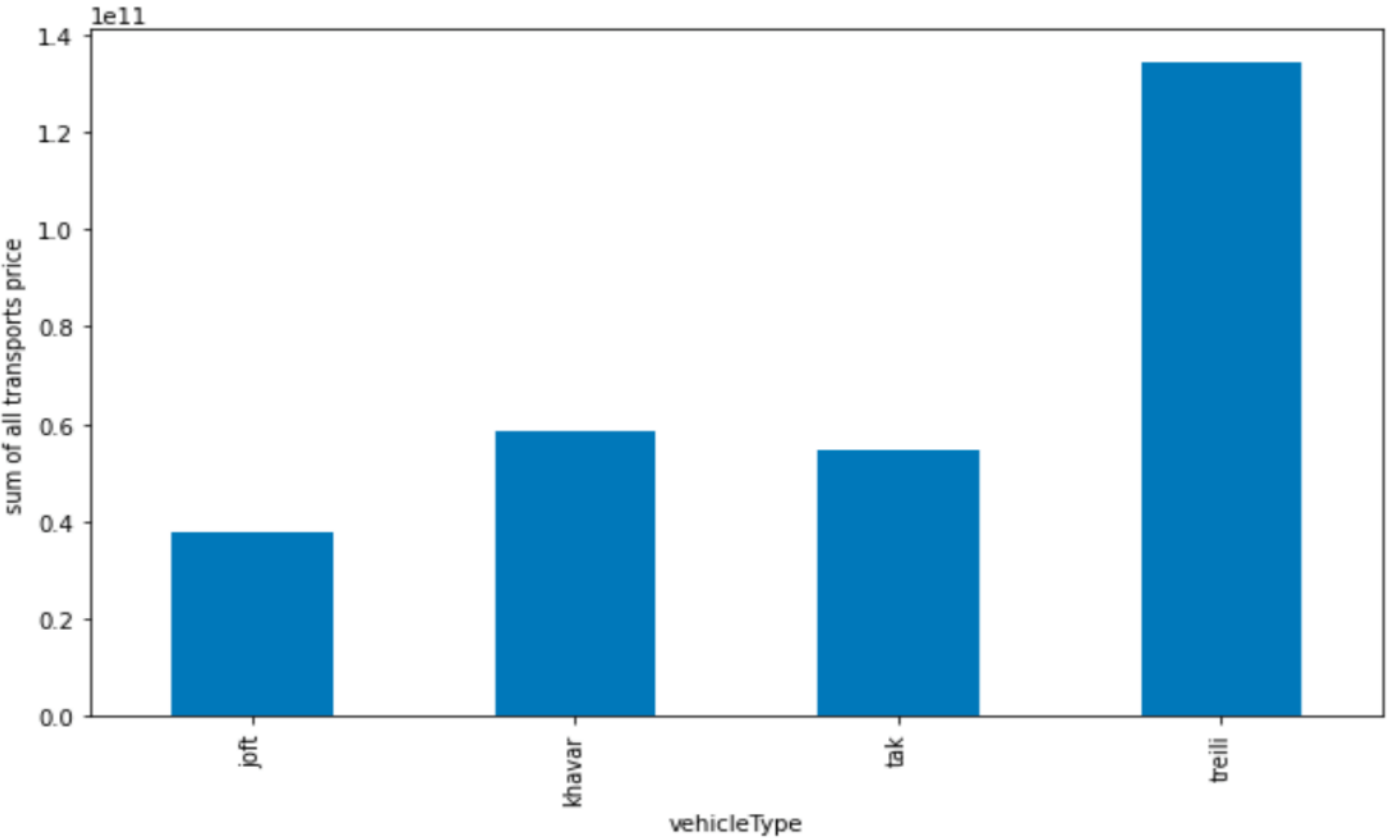


# The most needed vehicle



# Cumulative prices of transports according to vehicle type

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# Thank you