Increasing delivery efficiency and flexibility

Motivation / Background

- Votorantim Cimentos, aiming to expand its customer reach, is allowing clients to place orders smaller than full truck loads.
- With less products in each truck the cost per ton has increased constantly.

Key Questions / Hypothesis

- Which is the most appropriate delivery policy to balance the sales expansion and cost efficiency?
- What is the impact of restricting deliveries in only certain weekdays according to its geography?
- How much can a delivery policy decrease the transportation cost?

Methodology

We propose to address the topic by evaluating different policies; allowing to test the impact on service level and transportation cost. Methodology proposed:

1) Restrict the delivery dates for different regions.
2) Adjust the real demand to fit restriction tested.
3) Cluster the orders at region level.
4) Calculate transportation costs and the service level
5) Evaluate different policies

Initial Results

Expected Contribution

- Define a delivery policy for Votorantim Cimentos.
- Define an analytical process reapplicable in other industries in the need of increasing delivery efficiency and flexibility.
- Define a list of KPIs that can be easily reapplied in different environments.