

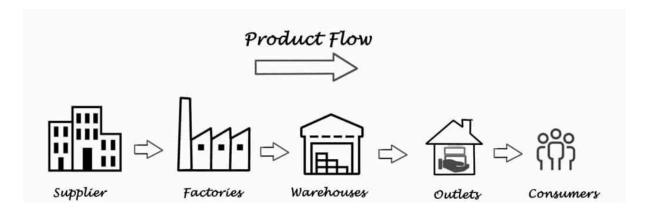
Supply Chain - Customer Satisfaction

Relevant training course: Data Scientist

Level of difficulty: 06/10

Description of the project:

The supply chain represents the stages of supply, the production process and the distribution of goods.



Downstream of this process, it may be interesting to assess customer satisfaction to:

- Quality study on the supply chain: design problem, delivery, unsuitable price, durability, etc.
- Study whether the product/service corresponds to market expectations.
- Synthesize feedback, customer improvements.
- Assist in responding to or redirecting dissatisfied customers...

For many products/services, customer satisfaction is measured on comments, opinions on dedicated sites (Trustpilot, distributor site, twitter, etc.).

It can be long, tedious but important to read and analyze the verbatim* which is essential to understanding customer satisfaction, but in the absence of tools which make it possible to synthesize these opinions, the processes are generally by sampling.



The objective of this project is to extract information from comments. Here are some areas of work:

- Predicting customer satisfaction: regression problem (predicting the number of stars).
- Identify the important entities of a message: location, company name...
- Extract comments from the comment (delivery problem, defective item, etc.): unsupervised approach
- Extract from the response of the supplier the words of the comment in order to try to predict them only with the comment.

Resources to consult:

- Data:
 - The dataset can be built by scraping (extracting) consumption advice sites:
 - Trustpilot: https://www.trustpilot.com/
 - Distributor website: Amazon, CDiscount...
 - Social networks: Twitter, Facebook...
 - Two sets of data are otherwise available :
 - from Trusted shops: the reviews are verified, i.e. they follow a customer order.
 - from Trustpilot: user reviews.

Validation conditions for the project:

- an exploration, data visualization and data pre-processing report;
- a modeling report;
- a final **report** and associated **GitHub**.