

**B2W CHALLENGE**

Price Analysis

# Problem

In the highly competitive Market, constantly the companies have to find ways to adjust or optimize the relationship between Price and Demand.

# Goal

The main objective is to create a model to predict the quantity sold for each product given a prescribed price. Along with the statistical model, we need metrics, relationships and descriptions of these data in order to understand the sales behavior.

# Methodology

To complete this challenge, I performed the following steps, according some steps to the CRISP-DM methodology:

- Data Understanding

- Data Preparation

- Modeling

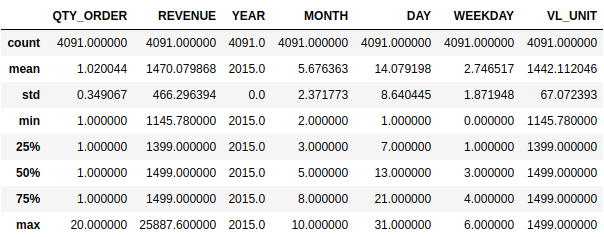
- Evaluation

# Data Understanding

The purpose of this step is to better understand the behavior of each product sold. For this, I applied several methods to find out more about imported data.

Following I’ll show some descriptive statistics of the analized products.

## 4.1. P1

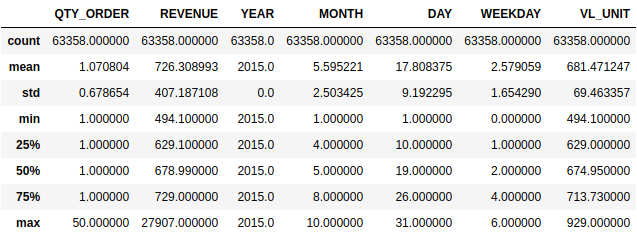


Firstly, it's possible to observe in the table above that the QTY\_ORDER column has a minimum value of 1 and a maximum of 20 quantities sold, with mean approximately 1.

In the REVENUE column you can see a largest difference between the minimum (1.145,78) and maximum (25.887,60) value. Probably because of it’s quantity sold.

Another important indicator to be analyzed is the standard deviation (std), in the QTY\_ORDER and REVENUE columns you can see the values of 0.35 and 466.30. This means that the QTY\_ORDER column have a range of 0.35 up or down and the REVENUE column have a range of 466.30 up to down from the value of your average.

## 4.2. P2



Following I’ll talk about some indicators analized:

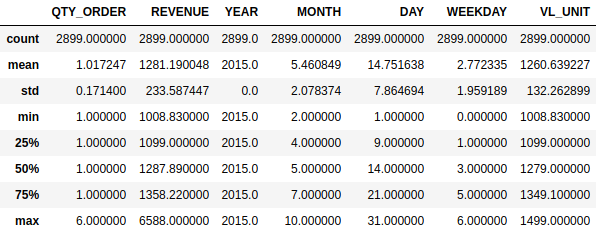
- Minimum value: It’s possible to observe in the REVENUE column that your minimum value is equal to 494.10.

- Maximum value: It’s possible to observe in the REVENUE column that your

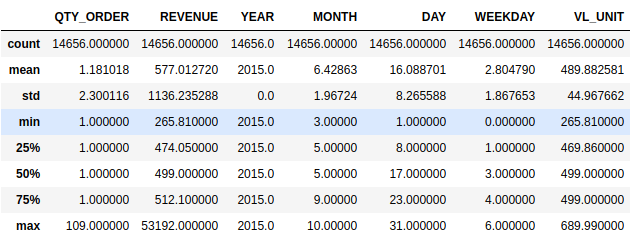
- Mean:

- Standard deviation (std):

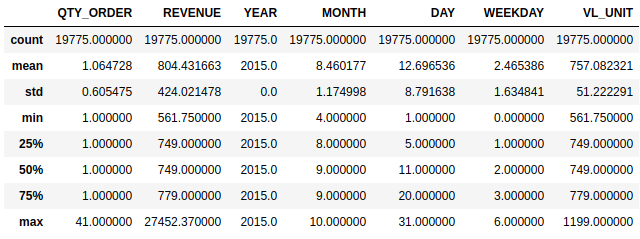
## 4.3. P3



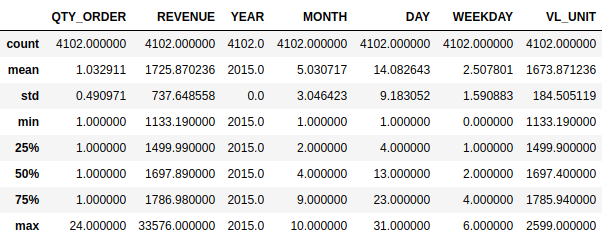
## 4.4. P4



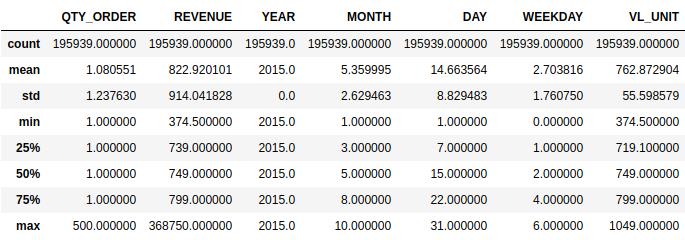
## 4.5. P5



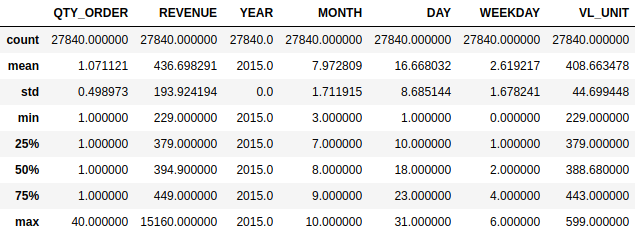
## 4.6. P6



## 4.7. P7



## 4.8. P8



## 4.9. P9

