Olist

Context of the study

WHO WE ARE?

5 data analysts consultants hired by Olist's CEO.

WHY?

Olist connects small businesses from all over Brazil to channels without hassle and with a single contract. Those merchants are able to sell their products through the Olist Store and ship them directly to the customers using Olist logistics partners.
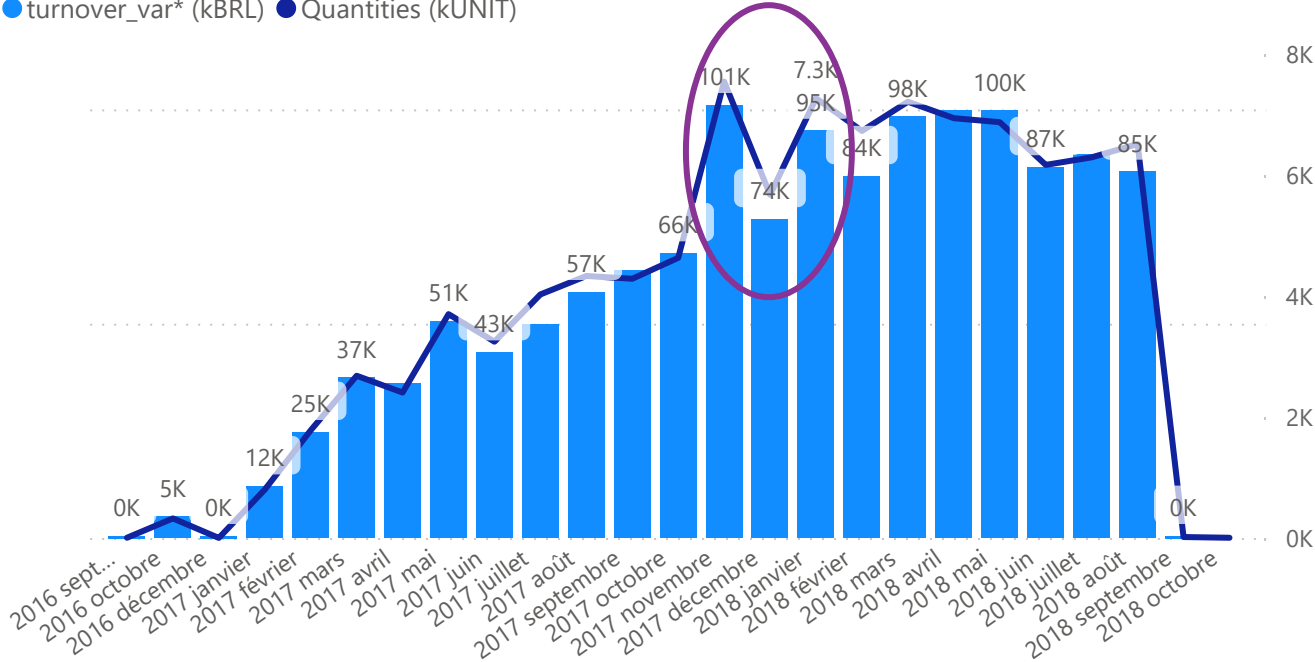
Question raised by Olist's CEO : **How to increase customer satisfaction while keeping orders sound ?**
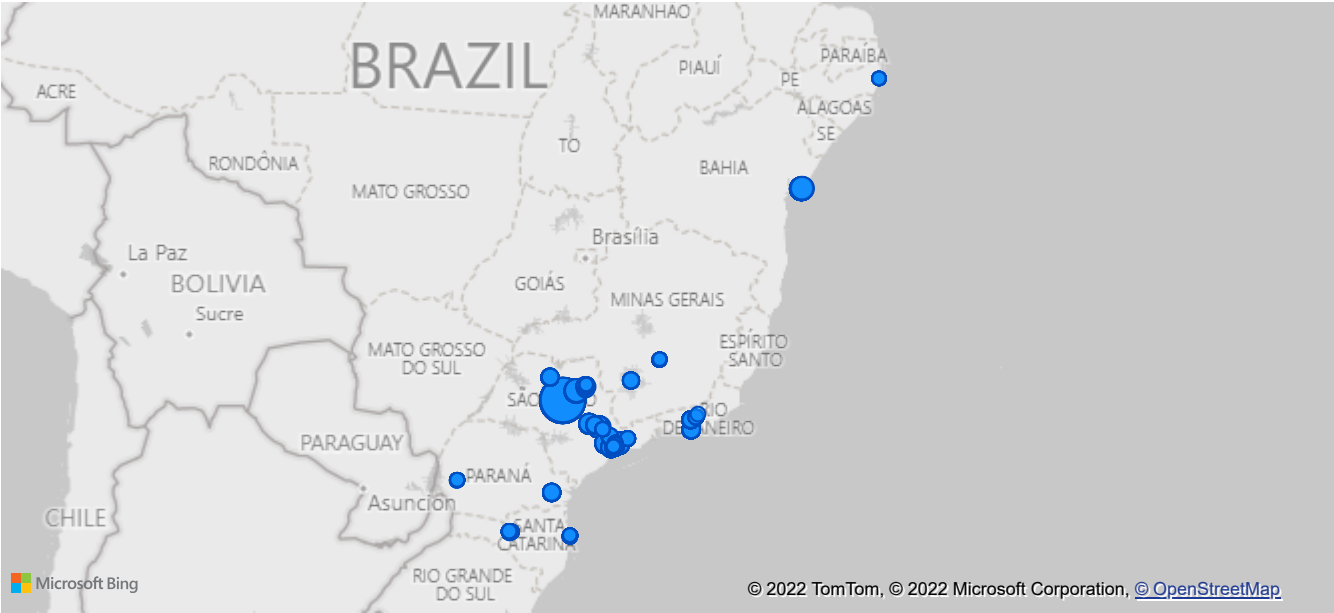
HOW?

- scope of data (orders from sept.2016 to oct.2018)
- data exploration
- compute turnover
- select top 20 categories by turnover
- run correlation analyses on top 20
- extra analysis on most correlated variable (delivery time)

Olist

Key Performance Indicators

Turnover (kBRL)

2,772K

Quantities

112K

Active sellers

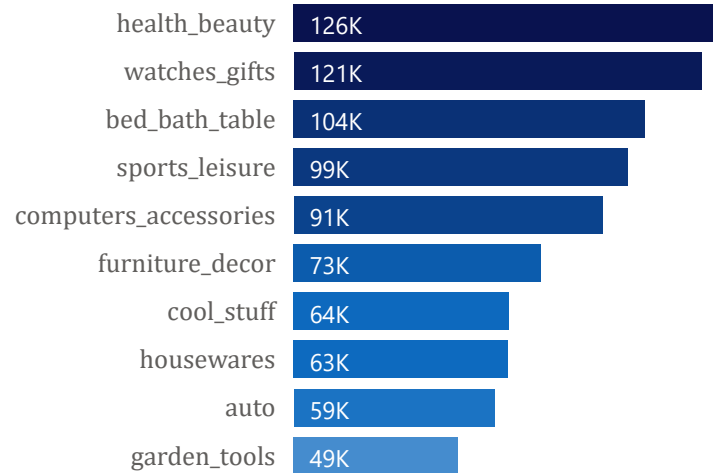3095

Average review score
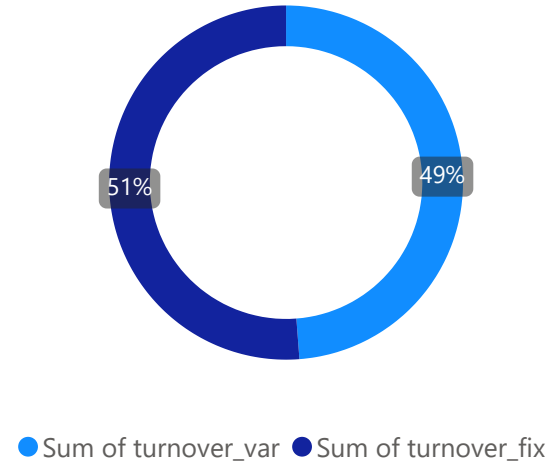
4.09

Average activity time (months)

6

Top categories

What is Olist's turnover split down by type, categories, sellers?

Top 10 turnover_var by categories

Category	Value
health_beauty	126K
watches_gifts	121K
bed_bath_table	104K
sports_leisure	99K
computers_accessories	91K
furniture_decor	73K
cool_stuff	64K
housewares	63K
auto	59K
garden_tools	49K

Turnover split_fix and var

49%
51%

● Sum of turnover_var ● Sum of turnover_fix

Turnover_var concentration by category

1%
15%
84%

● (Blank) ● other ● top_20

Turnover concentration by sellers

12%
88%

● top_20 ● other

- **Olist's turnover** has 2 components, a **variable component - 51%** of total Turnover - which includes a 10%-fee based on the price of each product sold through the platform and a **fixed component - 49%** of total Turnover - including a 80 BRL commission payed by each active seller.
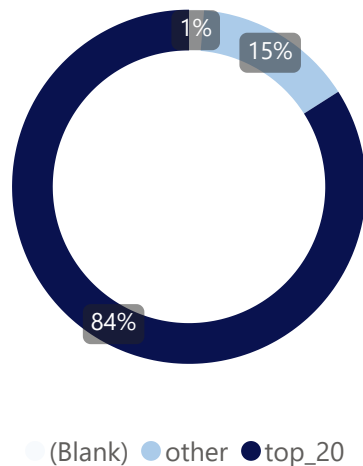
- **Variable turnover** is highly concentrated among categories since top 20 categories account for 85% of Olist' variable turnover.

- **Turnover** is highly diluted among sellers as top 20 sellers only account for 12% of total turnover.
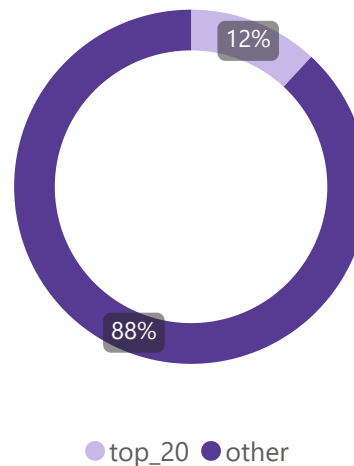
- Top 20 sellers exhibit higher activity time (17 months) versus 6 months for the rest.

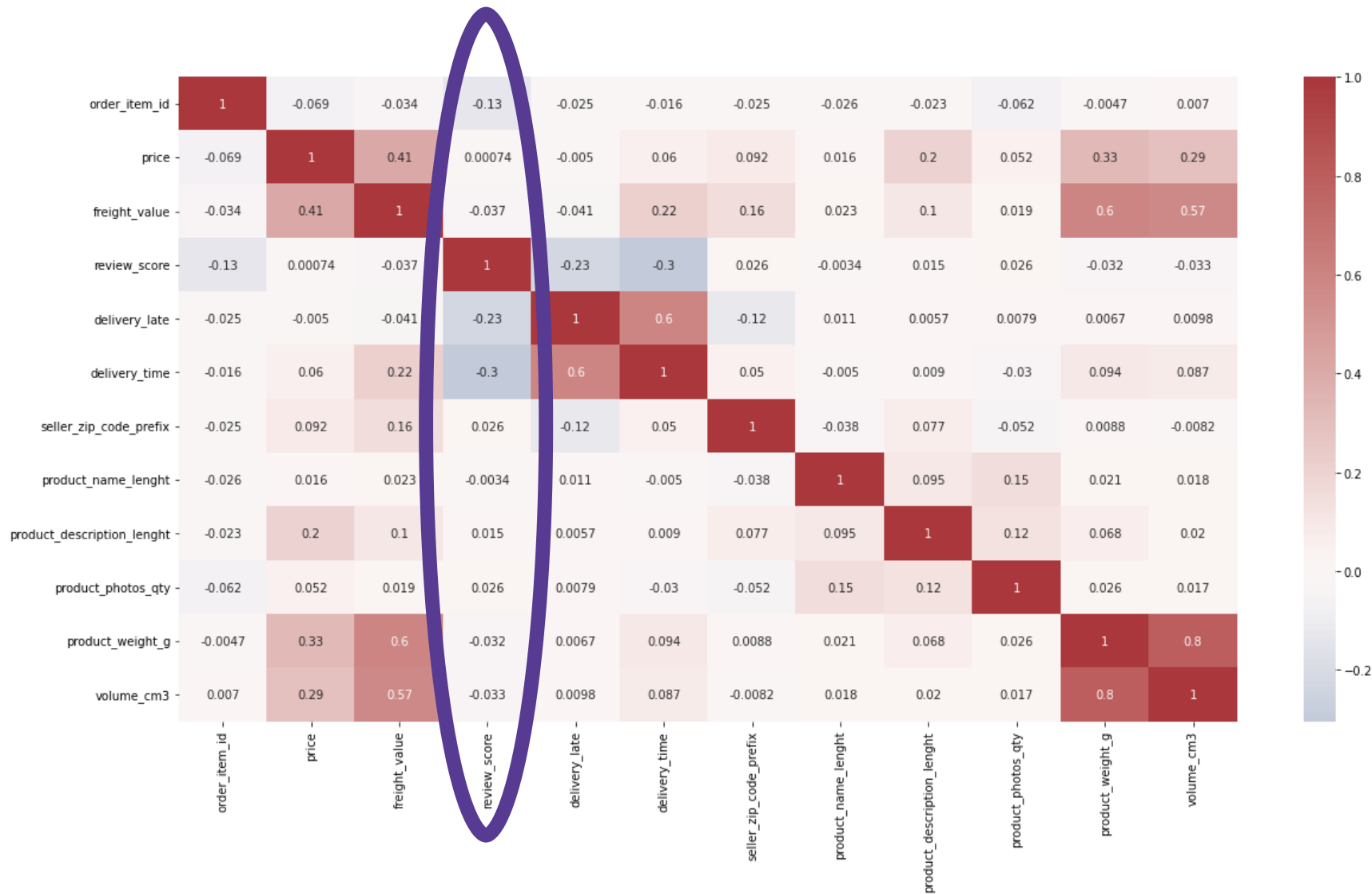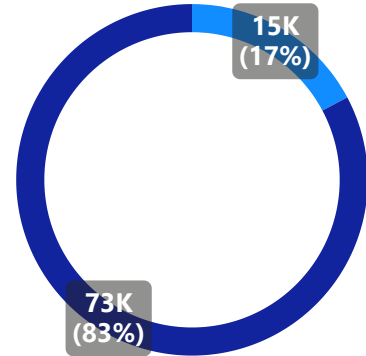- Top 20 sellers have the same average score than the rest.

Is review score correlated to any other variable?

- Correlation analysis on SELECTED TOP 20 CATEGORIES

- No relevant correlations

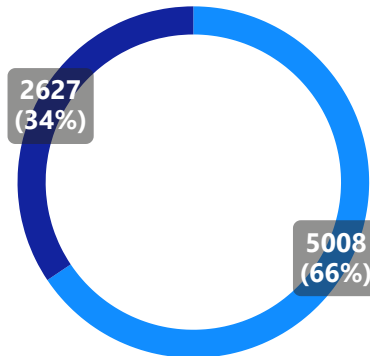- Delivery time => highest r score

How does delivery time impact review score?

Review Score for Commands Delivered On Time

15K (17%)

73K (83%)

review_score ● Bad ● Good

Review Score for Commands Delivered Late

2627 (34%)
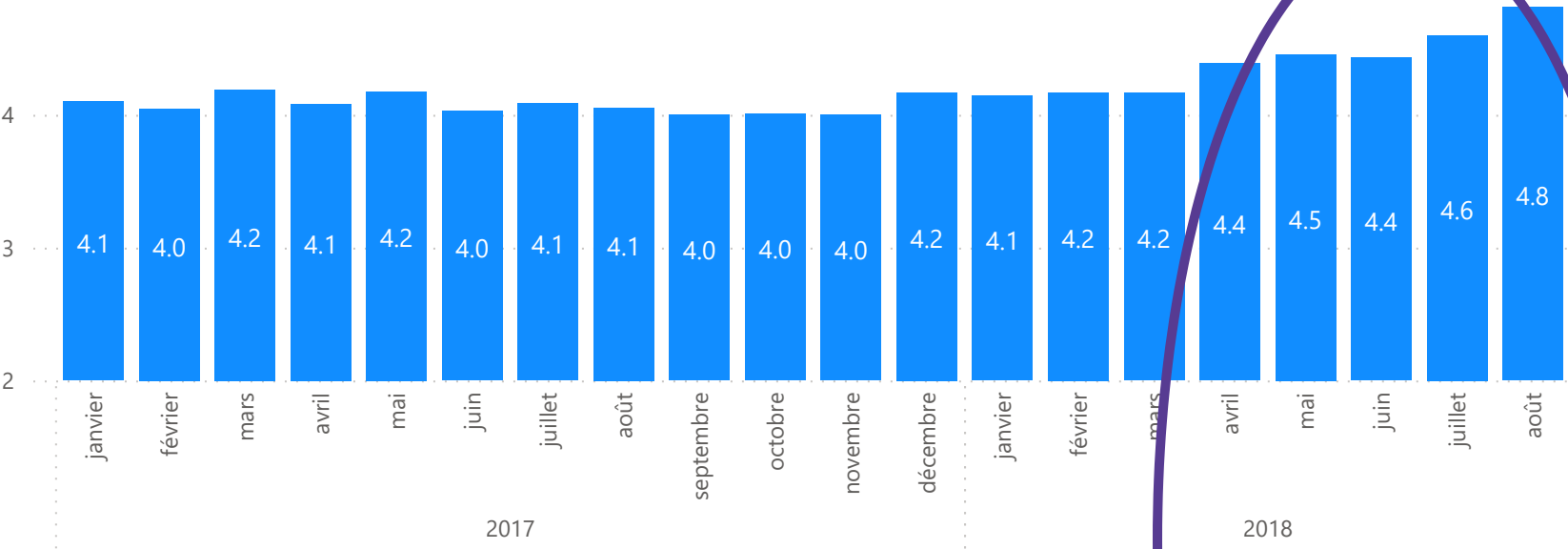
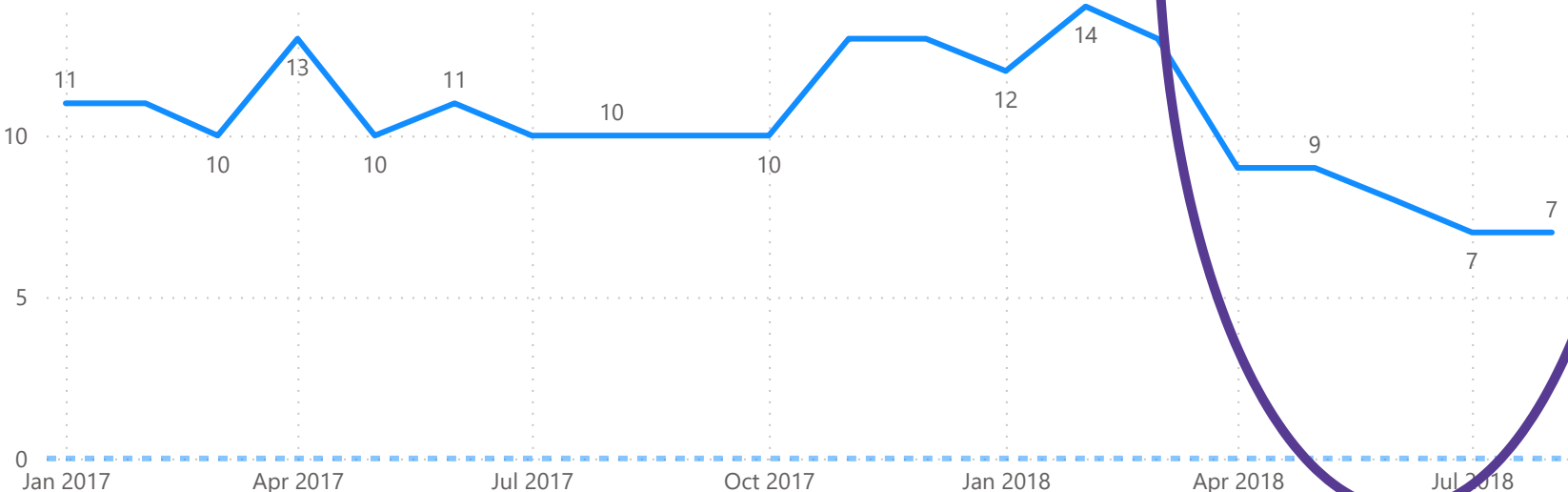5008 (66%)

review_score ● Bad ● Good

Word cloud_Good

Word cloud_Bad

Evolution of Review Score vs Delivery Time.

Review Score Median

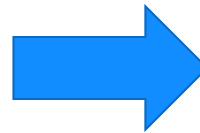• Increase Review Score when Delivery Time Decrease

How to increase customer satisfaction while keeping orders sound ?

KEY FINDINGS

- No relevant correlations between reviews and other variables (number of photos, weight, product description)

- Highest correlation of 0.3 ==> Delivery time

- 1/3 of orders delivered late have good reviews.

- No subscription date for sellers

KEY LIMITATIONS

- Focus on top 20

- Only 40% of reviews have a comment

- Only two years of data, very limited for correlations, analyses etc...

ACTION PLAN

- Conduct specific customers studies (questionnaire) to better understand the drivers of the reviews

- Keep on improving delivery time

- Add a field to sellers database to determine subscription beginning and end