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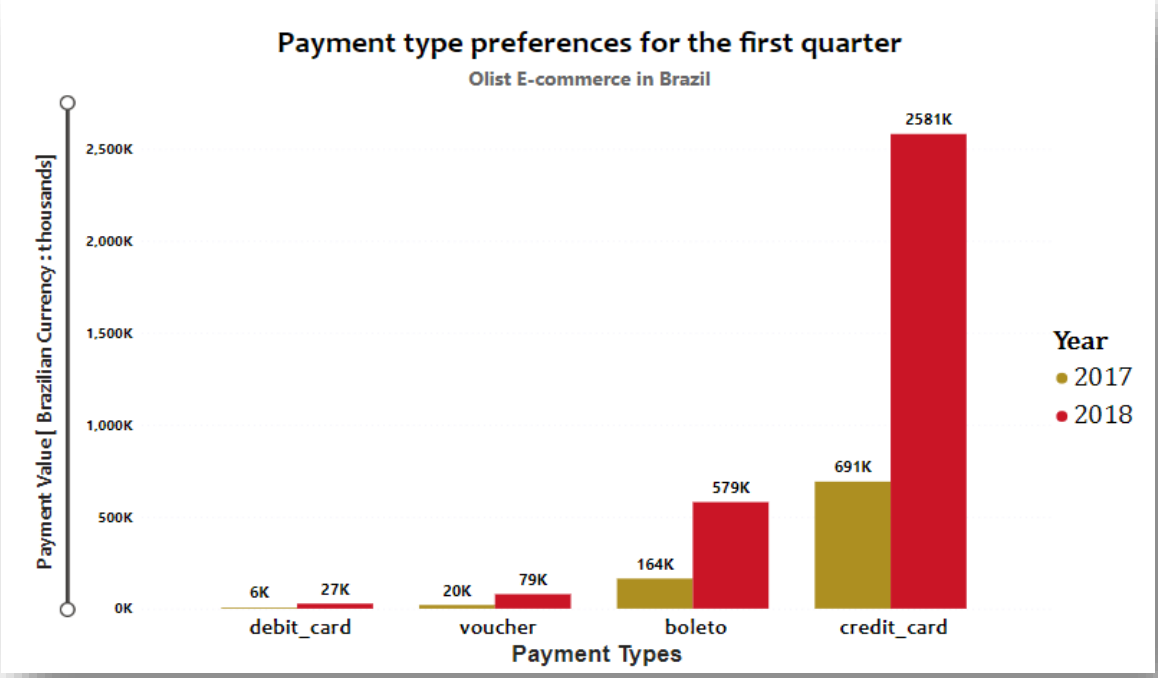
E-Commerce Sentiment Analysis

Brazilian E-Commerce Public Dataset by Olist

Goal: The goal is to analyze and compare the total payment values using various payment types (debit card, voucher, boleto, and credit card) on the Olist e-commerce platform during the first three months of two years, 2017 and 2018. This analysis will help us understand the growth trends in payment types and consumer preferences during these periods.



insight : Credit card payments show the highest total payment values in the first quarter of both 2017 at (691000), and 2018 at (2581000) . Then, Boleto a traditional Brazilian payment type presents a modest in the first quarter over the two years at (164000) in 2017, and at (579000) in 2018 . on the other hand, debit cards and vouchers exhibit much lower total payment values than credit cards and Boleto , but their usage remained relatively steady during the same period.

Data Abstraction:

Dataset Type: The dataset is a table resulting from the merging of two tables (olist_order_payments_dataset and olist_orders_dataset). From the merging table, I chose 2017,2018 and ignored 2016 because 2016 does not have the same period of data to give accurate results of payment type performance. The names of the tables and attributes I used are attached:

1- olist_order_payments_dataset.

payment_type : the way to pay payment such as debit card, voucher, boleto and credit card .

payment value: the payment amount during the period of time .

order_id: the primary key of olist_order_payments_dataset.

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2-olist_orders_dataset

order_purchase_timestamp: purchase time year, month, day, hour, minute used year (2017,2018) and month(January, February, and march) from it.

order_id : the primary key of olist_orders_dataset.

- ✓ Joind to table by order_id (olist_orders_dataset and olist_order_payments_dataset)

Items: Each bar in the graph represents an item. In this case, an item is a combination of a year and a payment type, with the bar's height representing the sum of payment value for that combination.

Data Types of Attributes:

- Payment Type (Categorical).
- Year (Ordered, Quantitative, Sequential).
- Payment Value (Quantitative, Continuous).

Task Abstraction: Show total amounts spent using various payment methods[debit cards, vouchers, boletos, and credit cards]on the Olist online marketplace during the first three months of both 2017 and 2018 years.

Marks :

- Line or bar (Length).

Channel:

- payment value (Length).
- payment value (Position: y-axis).
- Payment Type (Position: x-axis).
- Year (Color hue).
- Spatial regions for every Payment Type: two per marks or bars
  - (Separated horizontally, aligned vertically).
  - (Position: Ordered by year).
- Payment Type (Position: ordered by payment value).

Additional information: : payment value (Text labels).

Action and Target:

Level	Action	Target	
High-Level	Analyze(**Discover**)	**trend**	**Discover** the payment **trends** changes, during both 2017, and 2018 in the first quarter, and payment method usage.
Mid-Level	Search(**Lookup**)	**Features**	**Data Analysts look up** consumer preferences regarding payment value by payment type in the first quarter of the years 2017 and 2018 (features).
Low-Level	Query(**Compare**)	**Features**	**Stakeholders** such as marketing managers, data analysts, and public people compare payment value and dependencies between payment types, in the first quarter of years 2017,2018, (**features**).

Data source: Visualization tool (Power BI).

URL: https://www.kaggle.com/code/thiagopanini/e-commerce-sentiment-analysis-eda-viz-nlp/input