Optimizing OList Ecommerce

Boosting Sales and Customer Satisfaction

Objective :

The OList Ecommerce dataset presents a unique opportunity to optimize the sales strategy and enhance customer satisfaction for the largest store in the Brazilian marketplace. By analyzing customer purchasing patterns, evaluating sales and category-wise distribution, and examining the impact of logistical operations, this report aims to provide strategic insights into potential areas of growth and operational excellence.

Target Audience:

The report is designed for the below members.

Sales Teams: Which products and product categories contribute the most towards profits and their long term predictions.

Operations Managers: Logistical inputs on shipping and dispatch durations to find out which processes are the bottlenecks leading to delays and how much of an impact they have on customer satisfaction.

E-commerce Strategists: Offering data-driven insights for informed decision-making.

Team roles:

- Kedar: Responsible for ensuring the dataset is accurate and consistent, ready for analysis. This involves identifying and rectifying any errors or inconsistencies in the data, and performing data preparation using Tableau Prep.
- Sharan: Analyzed the characteristics of customers and sellers, focusing on aspects like region, state, and top performers, to gain a deeper understanding of various market segments and their dynamics.
- Akhil Reddy Lavanur: Identified sales data across various product categories, states, and sub-categories to identify the top-performing segments. Also assesses how sales trends change over time and provides forecasts for upcoming quarters.
- Sai Sreekar Nelakonda: Analyzed customer reviews, the focus was on examining customer feedback, evaluating sentiments, and deriving insights that were crucial for enhancing product offerings and customer service quality.
- Kaushik Madhavan: Responsible for evaluating the logistics performance, identifying factors that affect delivery times, and suggesting improvements.
- Lakshay: Synthesizes findings from various analyses to provide strategic guidance and actionable recommendations for future business plans and growth strategies.

Data Sources and Prep:

olist_products_dataset.csv: Contains information about the products sold by Olist, including product IDs, category, size, and weight information.

olist_sellers_dataset.csv: Details about the sellers on the Olist platform, such as seller ID and location.

product_category_name_translation.csv: Provides English translations for the product category names, which are originally in Portuguese.

olist_customers_dataset.csv: Includes data about customers, such as customer ID, unique customer identifiers, and location data.

olist_order_items_dataset.csv: Details about items purchased within an order, including price, freight value, and product and seller IDs.

olist_order_payments_dataset.csv: Contains payment data related to orders, including payment type, installments, and payment value.

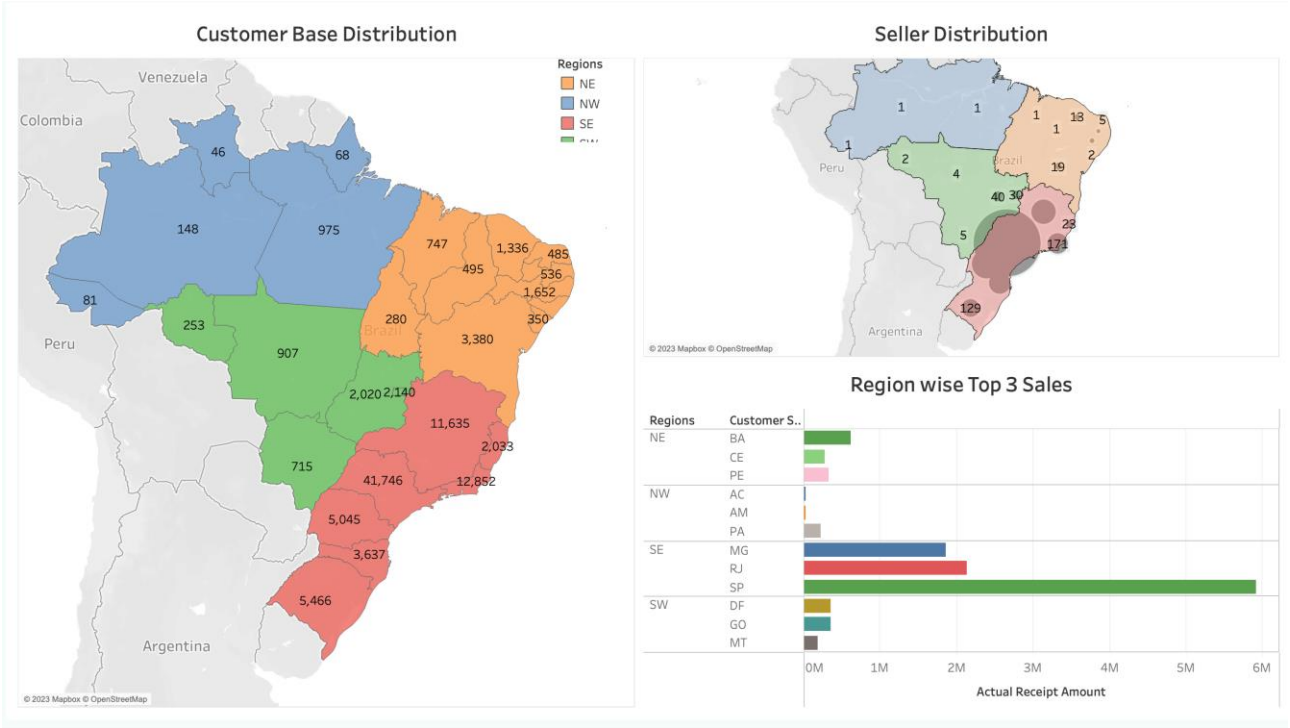
olist_order_reviews_dataset.csv: Captures customer reviews for orders, including review score, comment date, and delivery date.

olist_orders_dataset.csv: Records the orders placed, including order ID, customer ID, order status, and timestamps for purchase and delivery.

These datasets can be linked through various keys like customer ID, seller ID, and order ID to perform comprehensive analysis on customer behavior, sales performance, product popularity, and logistical efficiency. They provide a rich source for understanding e-commerce dynamics within the Olist platform.

Dashboard interactions and finding:

1. Customer and Seller Distribution Maps:

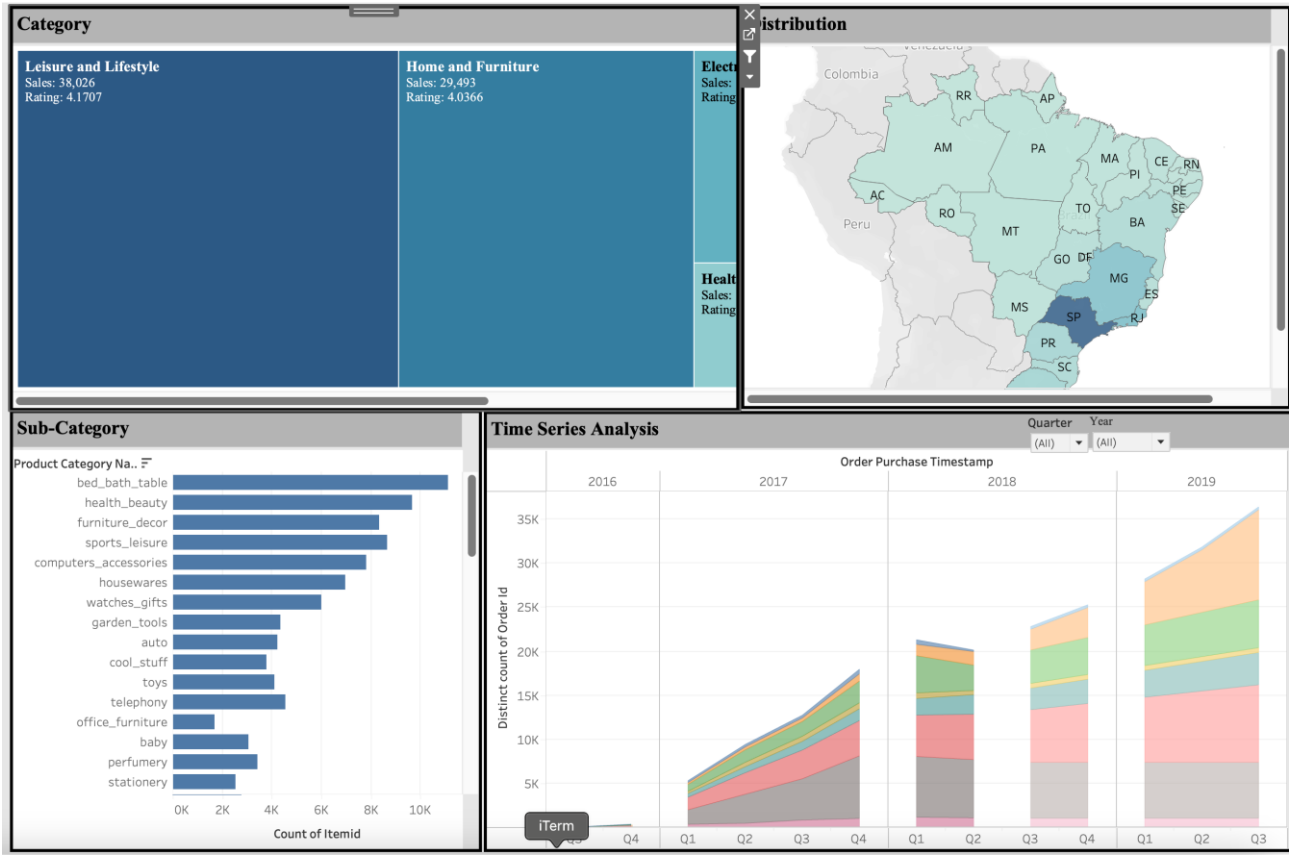


The first image shows a map indicating the distribution of the customer base and sellers across different regions. It is color-coded to represent different regions, such as NE, NW, SE, and SW.
The left side of the map shows the number of customers in various regions, with significantly high numbers in the southeast region.

The right side of the map displays the number of sellers in those regions, with a concentration of sellers in the southeast as well.

There's a bar graph titled "Region wise Top 3 Sales," which seems to indicate the actual receipt amount of sales in those regions, with the southeast region again standing out with the highest sales figures

Sales Category and Time Series Analysis:



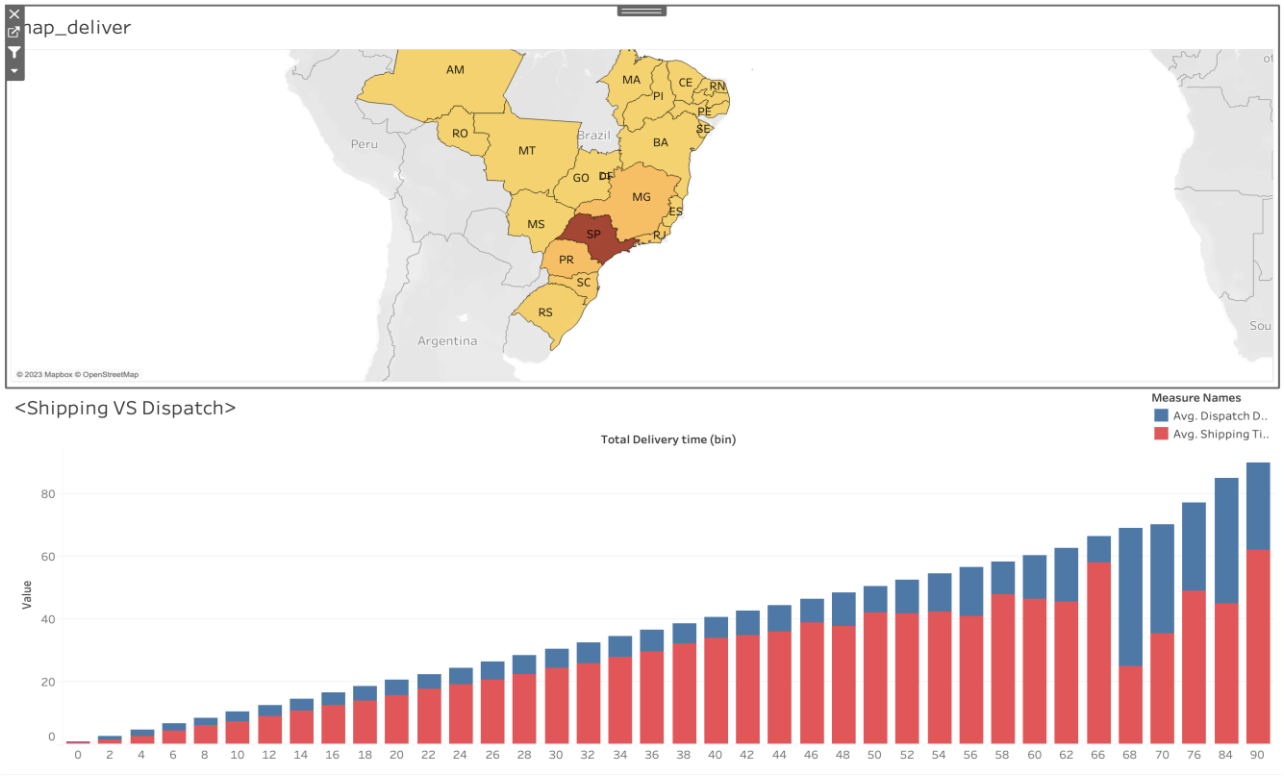
The second image displays sales data categorized by type, such as "Leisure and Lifestyle," "Home and Furniture," etc., along with their sales numbers and ratings.

It also shows a sub-category breakdown, listing specific types of products and their sales count, where "bed_bath_table" seems to have the highest count.

A time series analysis graph is present, showing the distinct count of orders over quarters from 2016 to 2019, indicating a growing trend in sales over time.

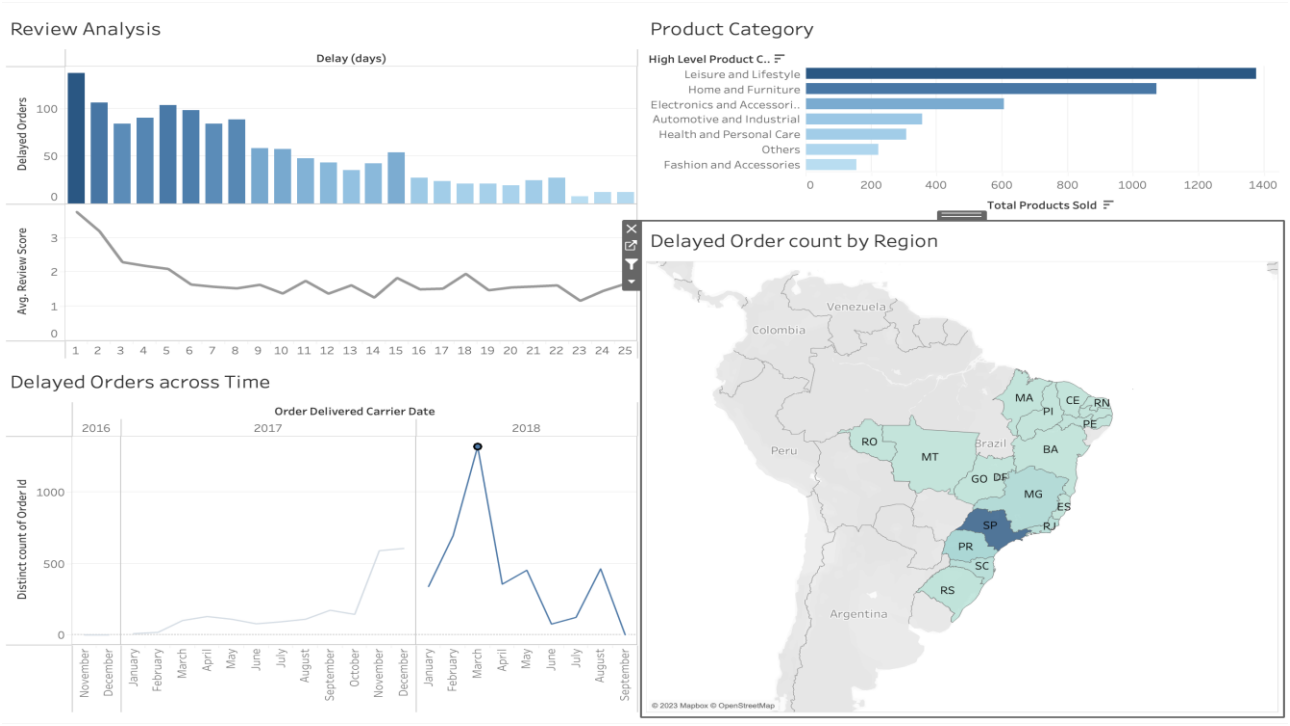
Shipping and Dispatch Time Analysis:

The third image includes a map titled "map_deliver," which highlights various regions with different intensities of delay orders, indicating delivery times or performance.



Below the map is a bar graph contrasting "Shipping VS Dispatch" times. This graph compares the average dispatch time against the average shipping time, identifying whether dispatch or shipping contributes more to overall delivery times.

Review Analysis:



The top left chart indicates the number of delayed orders by the number of delay days. The highest number of delays occur within the first few days, gradually decreasing as the delay lengthens.

Just below, there's a line graph showing the average review score, which seems to trend downwards as the delay days increase. This suggests that longer delivery times are correlated with lower customer satisfaction.

The top right bar chart categorizes sales data by product category, such as "Leisure and Lifestyle," "Home and Furniture," "Electronics and Accessories," and so on.

"Leisure and Lifestyle" is the leading category in total products sold, followed by "Home and Furniture," indicating these are popular categories within the dataset.

The below left chart shows that there was a increase in delayed orders during March 2018 compared to the rest of the time range indicating further investigation might be needed during that time to better understand logistical issues.

The bottom right chart shows clearly that Sao Paolo has the highest number of delayed orders, which correlates to the fact that the bulk of the orders are also placed in Sao Paolo.