

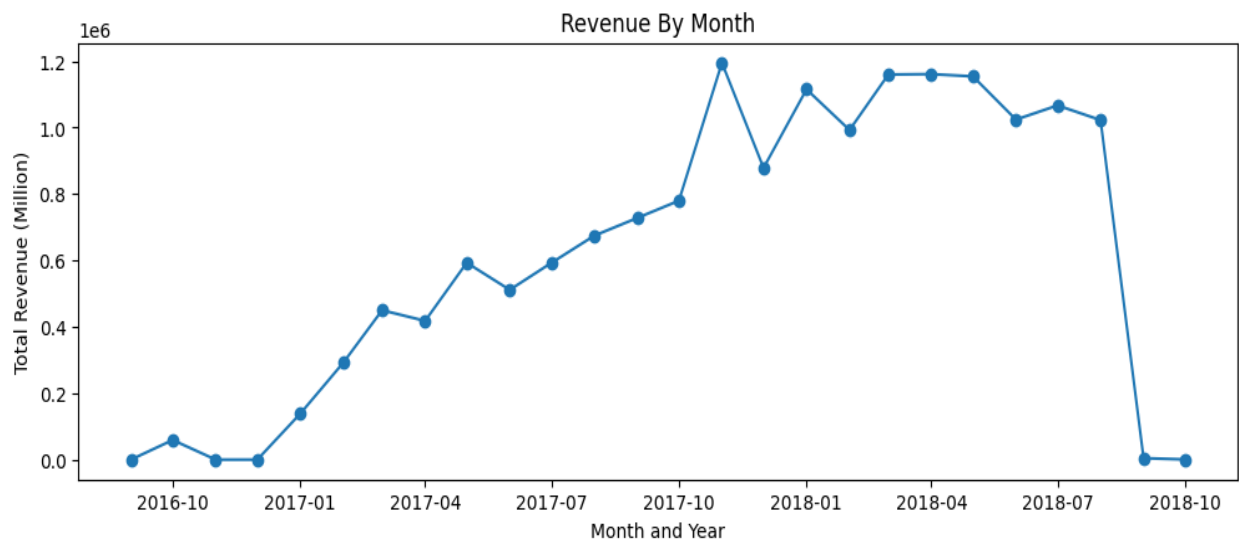
OLIST DATA ANALYSIS

Introduction:

This report presents an analysis of the Olist dataset, providing valuable insights into the company's performance, customer behavior, and product trends. The dataset spans from 2016 to 2018, and it covers various aspects of Olist's operations, including revenue, orders, sellers, product categories, customer reviews, and payment methods.

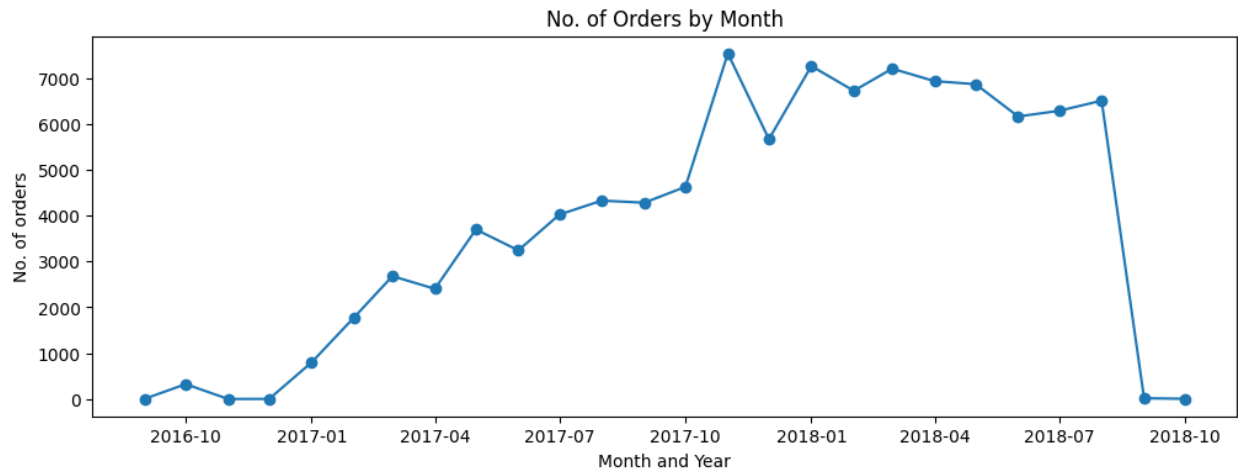
1. What is the total revenue generated by Olist, and how has it changed over time?

The total revenue generated by Olist during the analyzed period is R\$ 16,008,872.12. The revenue shows a fluctuating trend over time, with a peak in November 2017 and a sharp decrease in September 2018. The company should further investigate the factors that contributed to these fluctuations to devise strategies for maintaining consistent revenue growth.



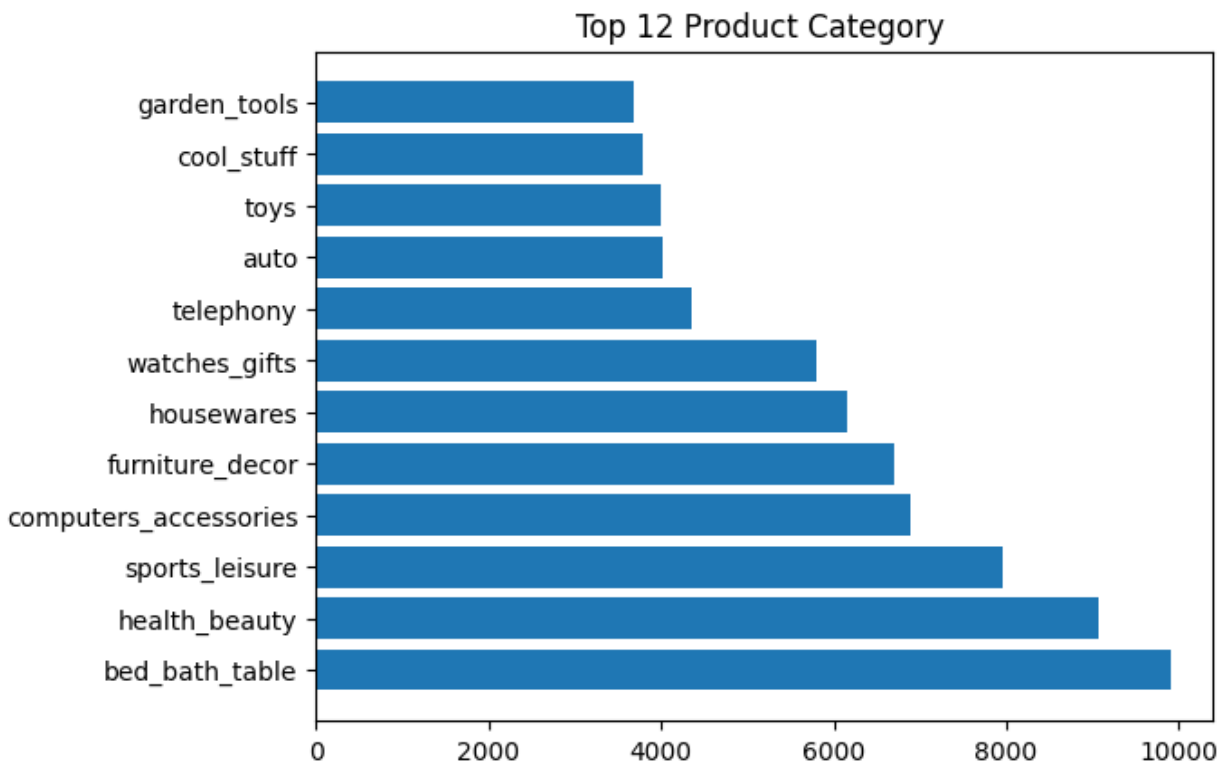
2. How many orders were placed on Olist, and how does this vary by month or season?

A total of 99,440 orders were placed on the platform during the analysis period. To understand the variation in orders, it would be beneficial to examine the monthly or seasonal trends. Orders have been increasing with time, taking its peak at November 2017, with a sharp fall in September 2018. The sharp fall is most likely due to the close of account. However, the company should plan its resources and marketing efforts more effectively.



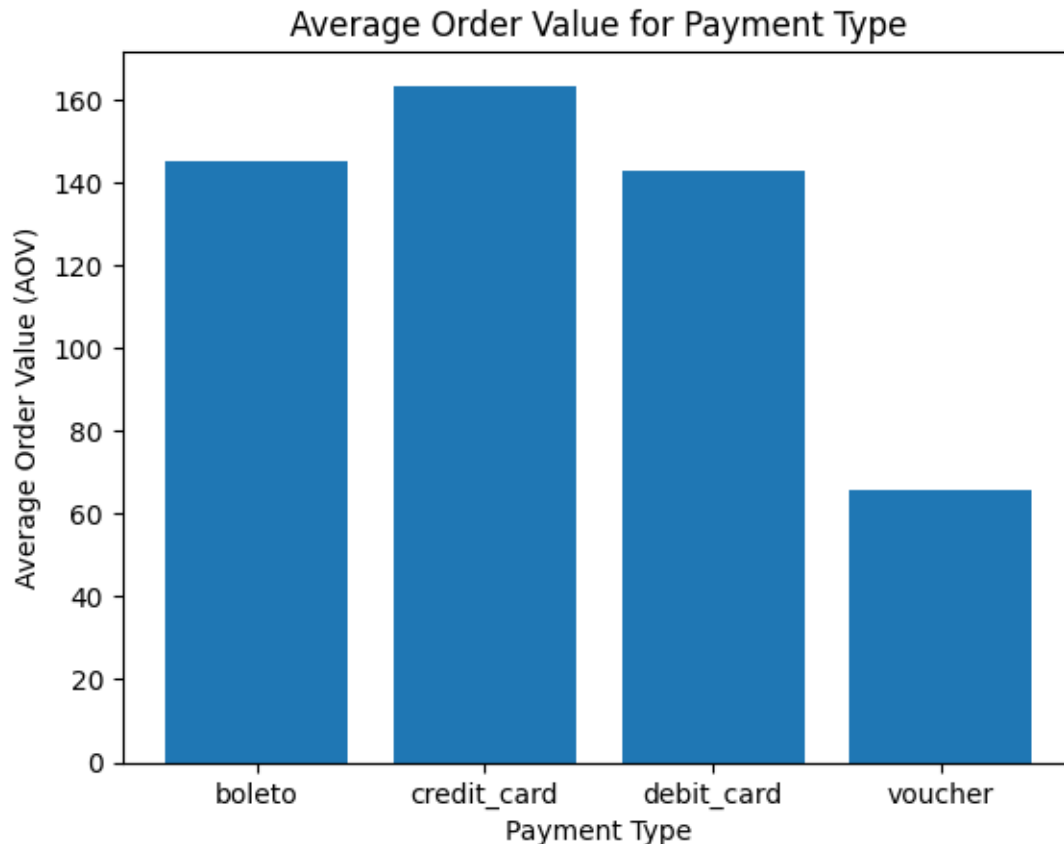
3. What are the most popular product categories on Olist, and how do their sales volumes compare to each other?

The most popular product categories on Olist, ranked in order of sales volume, are bed bath table, health beauty, sports leisure, computer accessories, furniture decor, housewares, watches gifts, telephony, auto, toys, cool stuff, and garden tools. Focusing on these popular categories can lead to increased sales and profitability.



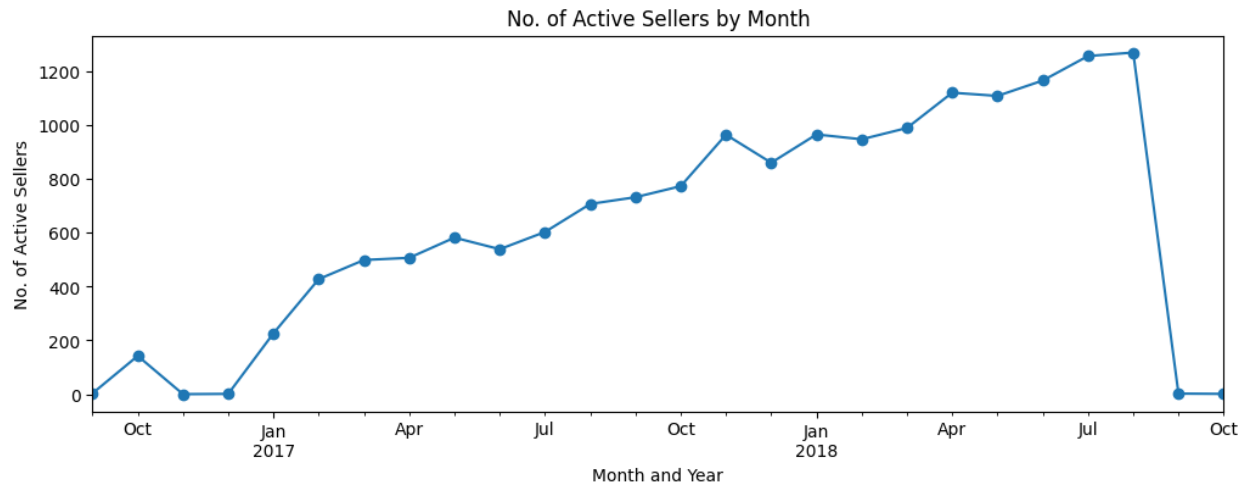
4. What is the average order value (AOV) on Olist, and how does this vary by product category or payment method?

Customers who use credit cards tend to generate the highest average order value (AOV), while those using vouchers generate the least. Olist could consider incentivizing credit card usage or offering discounts for higher AOV orders to further boost revenue.



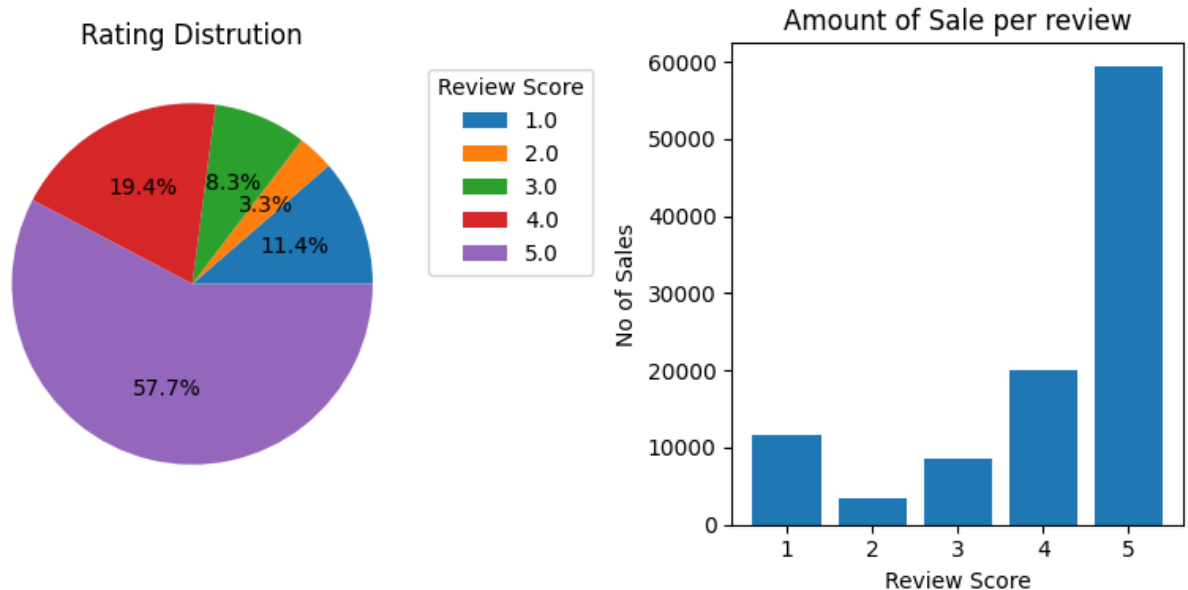
5. How many sellers are active on Olist, and how does this number change over time?

Throughout the dataset, there were 3,089 active sellers on Olist. The number of active sellers has steadily increased over the years, with 144 active sellers in 2016, 1,784 in 2017, and 2,376 in 2018. Olist should maintain seller engagement and ensure a seamless onboarding process to attract new sellers and retain existing ones.



6. What is the distribution of seller ratings on Olist, and how does this impact sales performance?

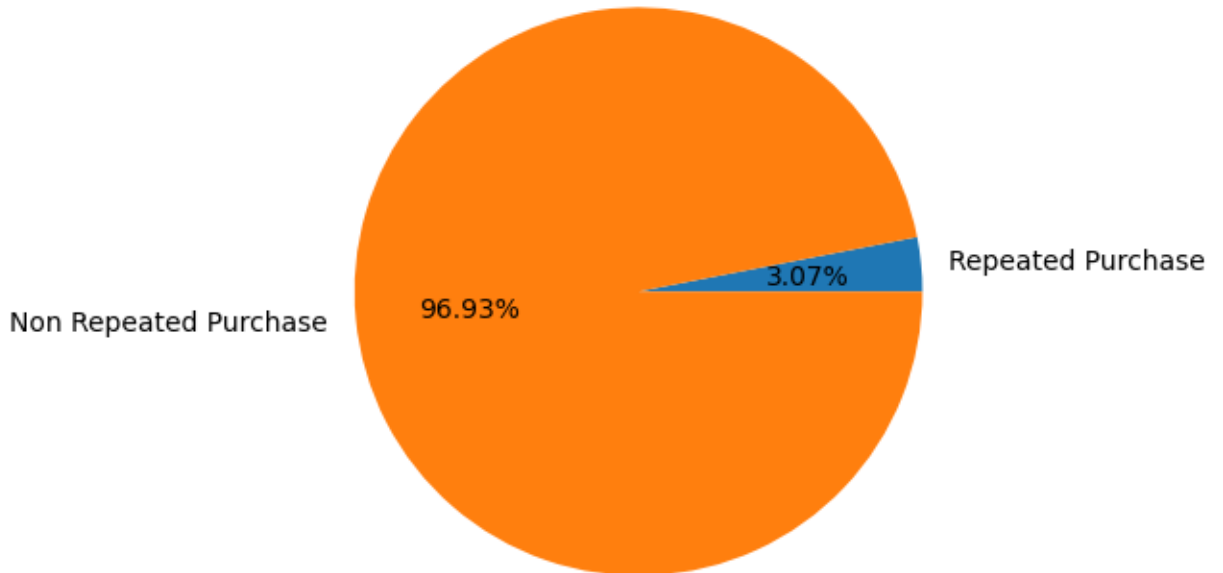
Review score 5 has the highest share of the rating distribution, accounting for 57.7% of the total reviews. The sales performance is positively impacted by higher review scores, particularly scores 4 and 5. Olist should continue encouraging positive customer experiences and addressing any concerns raised in lower-rated reviews.



7. How many customers have made repeat purchases on Olist, and what percentage of total sales do they account for?

Out of the total sales, 3.07% comes from customers who have made repeated purchases. Encouraging repeat business is crucial for building customer loyalty and increasing the overall lifetime value of each customer.

Distribution of Repeated Customers



8. What is the average customer rating for products sold on Olist, and how does this impact sales performance?

The average customer rating for products sold on Olist is 4, indicating overall customer satisfaction. However, Olist should not become complacent and should continuously seek ways to improve customer service and product quality to stay competitive in the market.

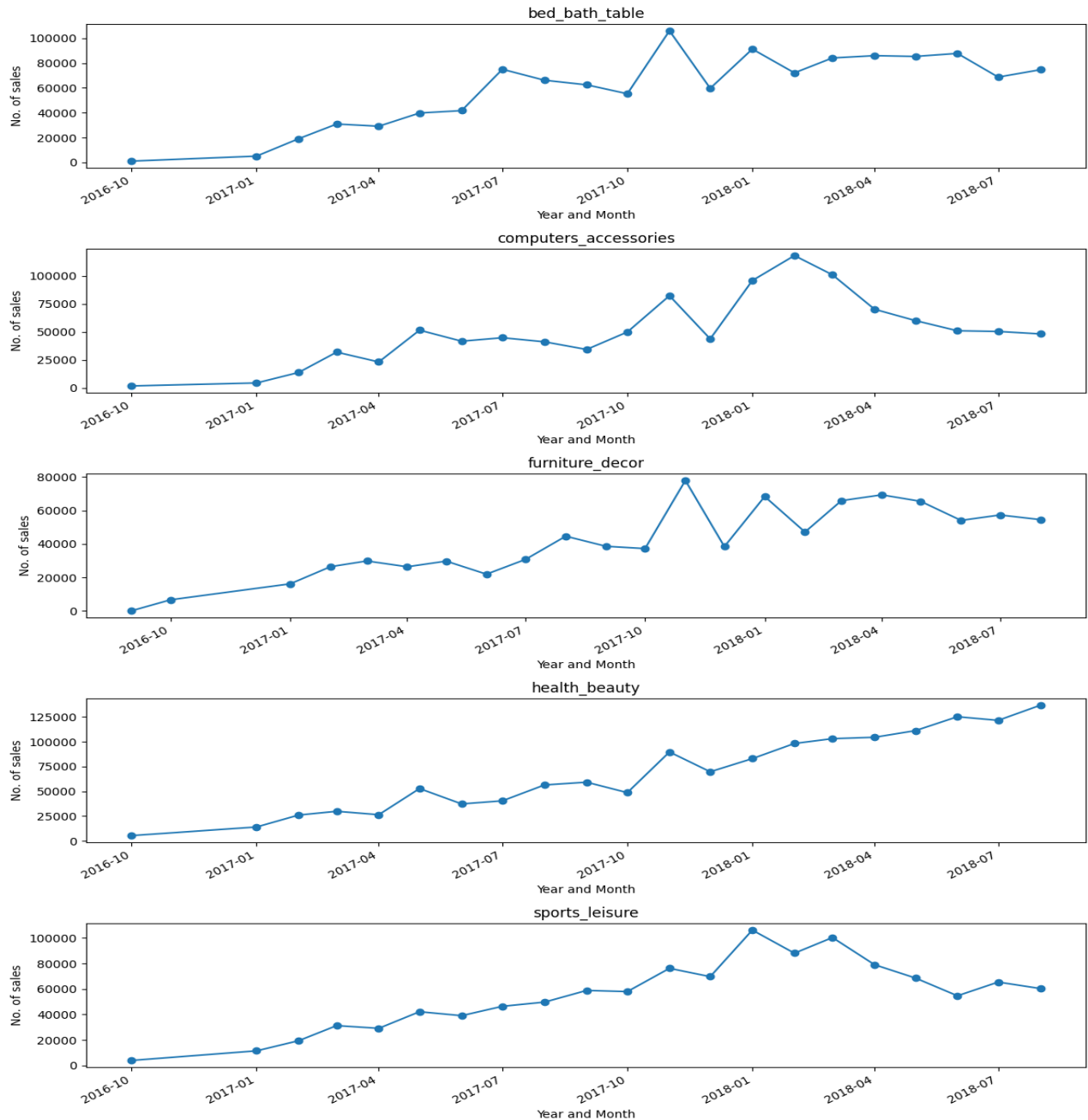
9. What is the average order cancellation rate on Olist, and how does this impact seller performance?

The average order cancellation rate on Olist is 0.64%, which is satisfactory. However, reducing this rate further can lead to increased customer satisfaction and improved seller performance.

10. What are the top-selling products on Olist, and how have their sales trends changed over time?

The top 5 selling products on Olist are bed bath table, computer accessories, furniture decor, health beauty, and sports leisure. Understanding the sales trends for these products can help Olist identify seasonal demand patterns and optimize inventory management.

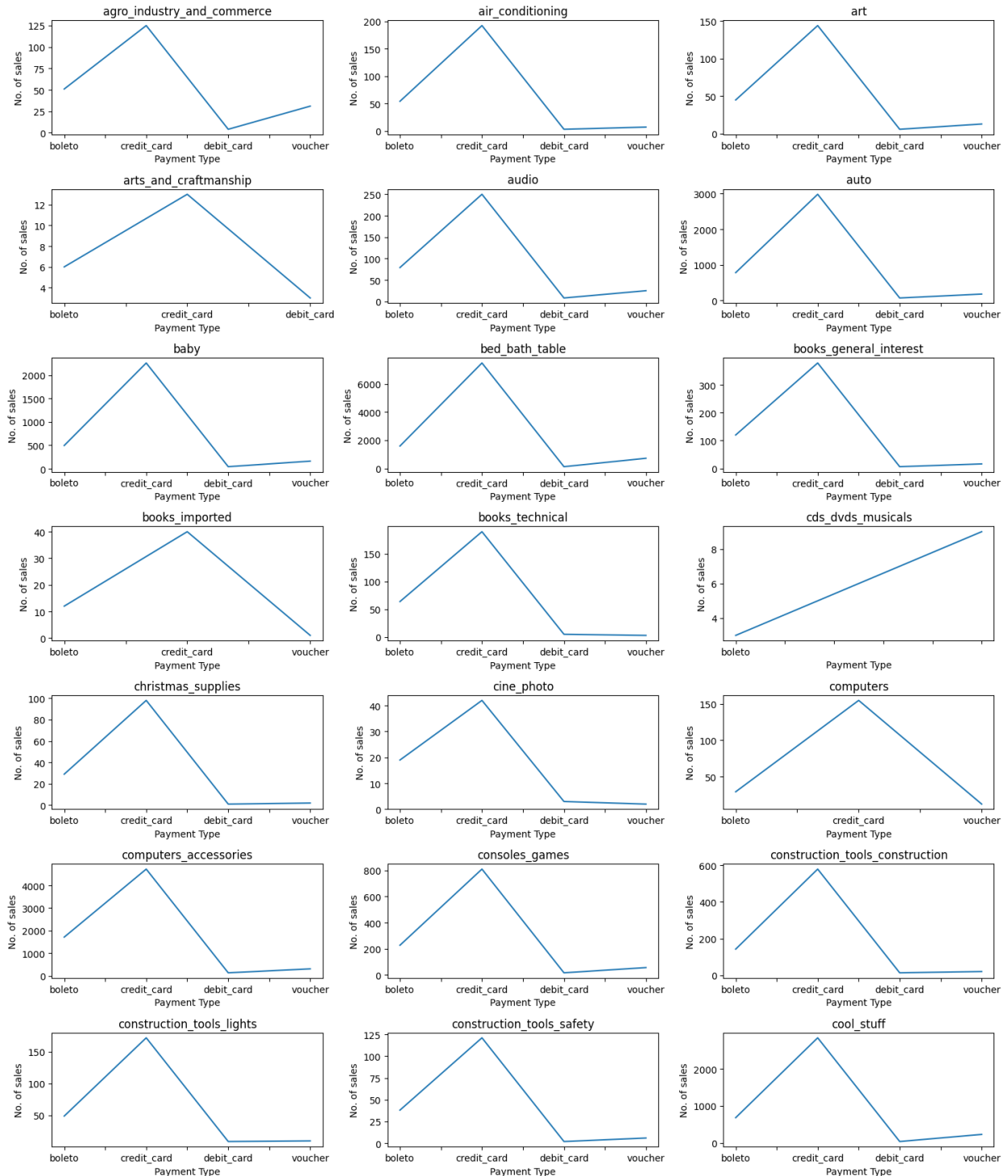
Top 5 Selling Product

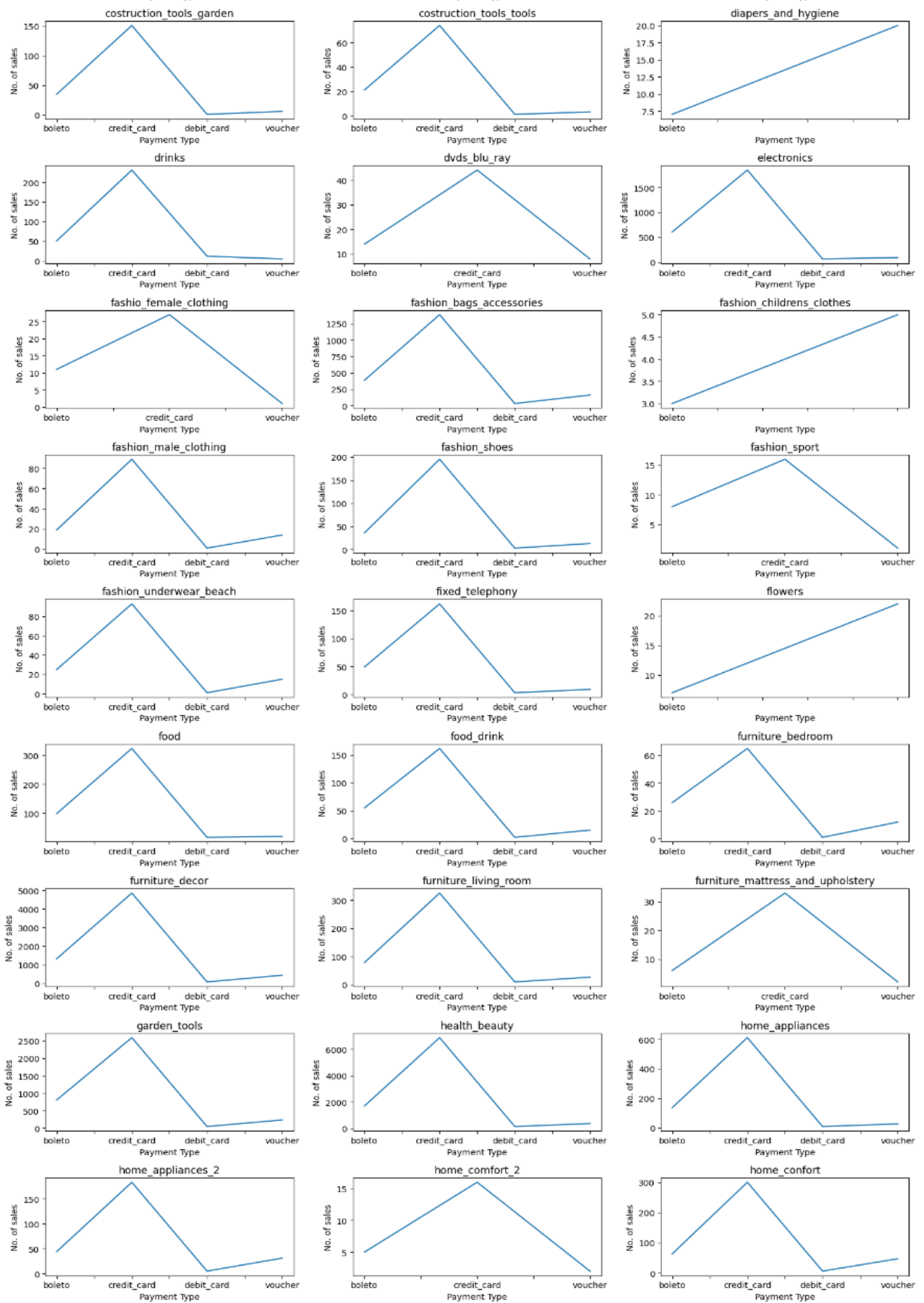


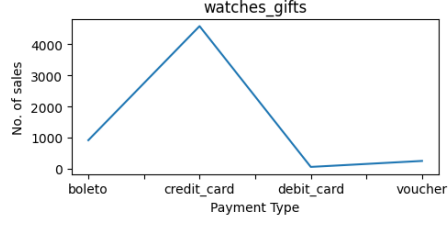
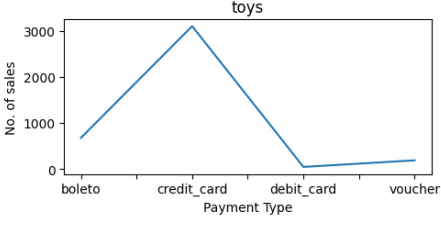
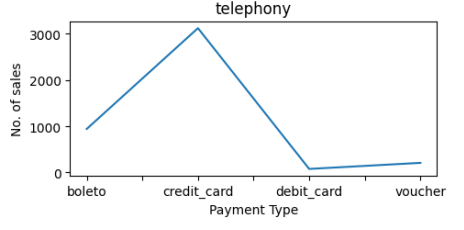
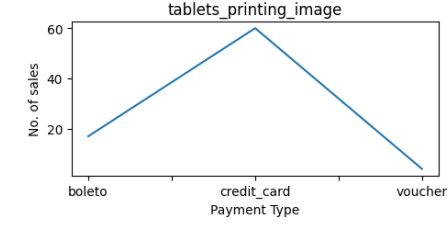
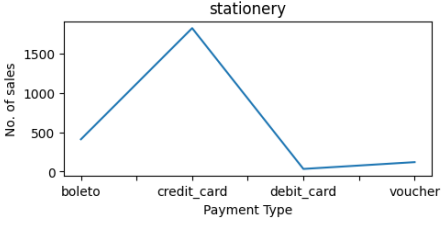
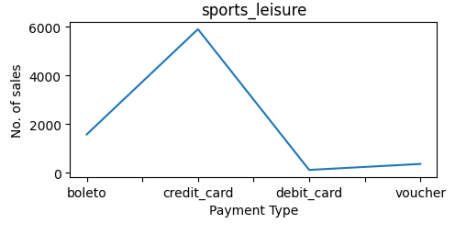
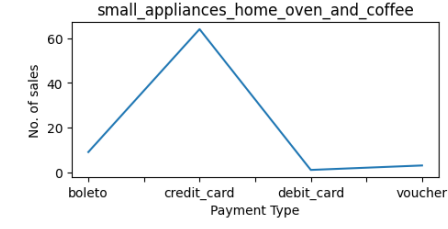
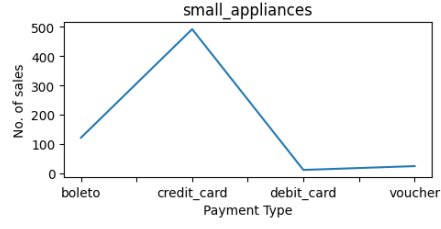
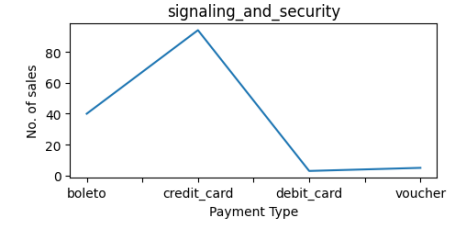
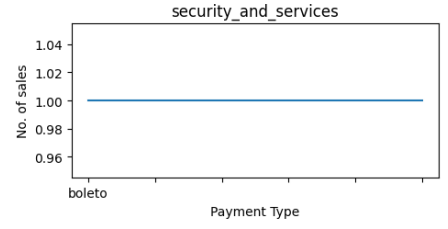
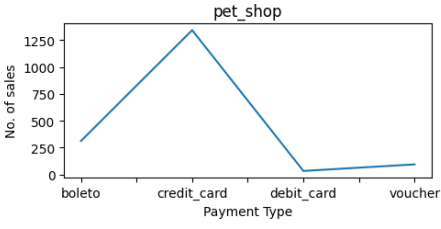
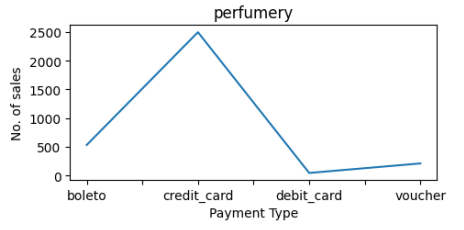
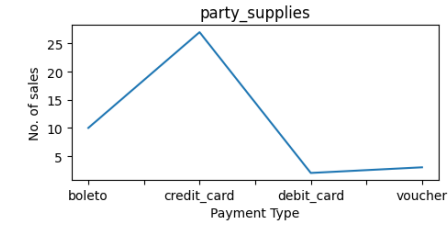
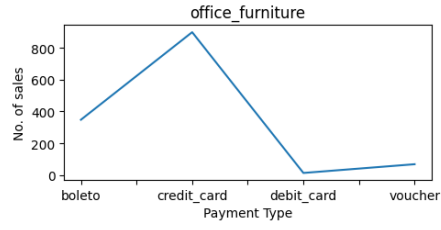
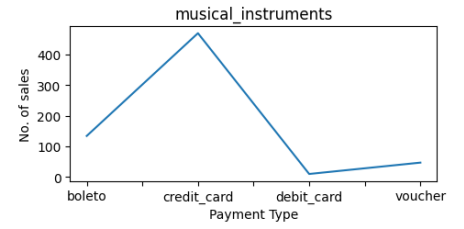
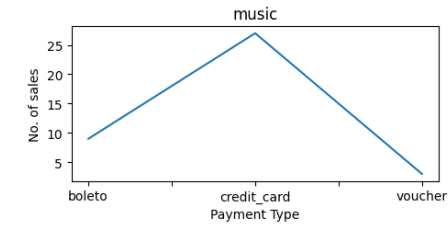
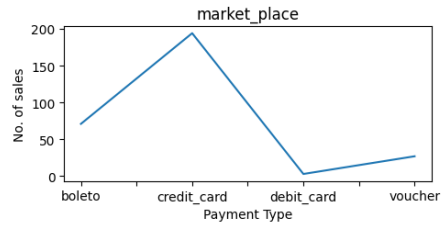
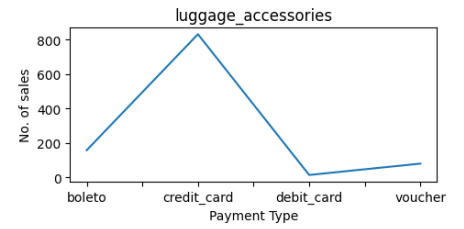
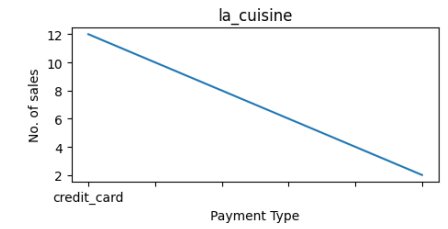
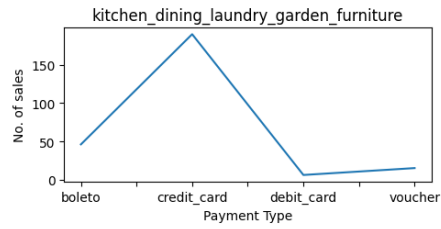
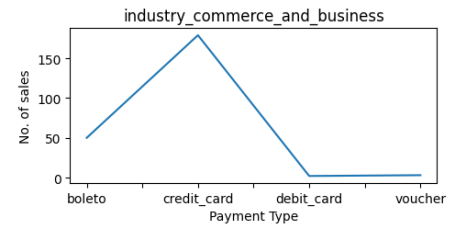
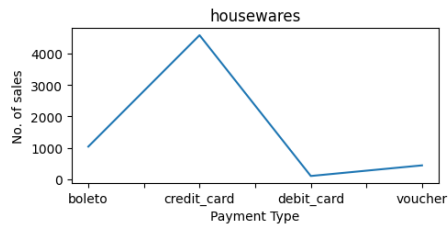
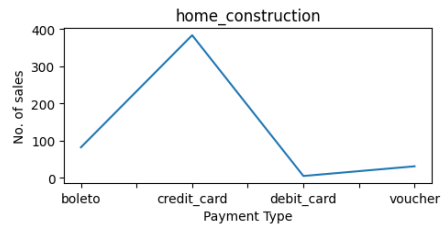
11. Which payment methods are most commonly used by Olist customers, and how does this vary by product category or geographic region?

Credit cards are the most commonly used payment method by Olist customers, followed by boleto and debit cards.

Payment Type per Category





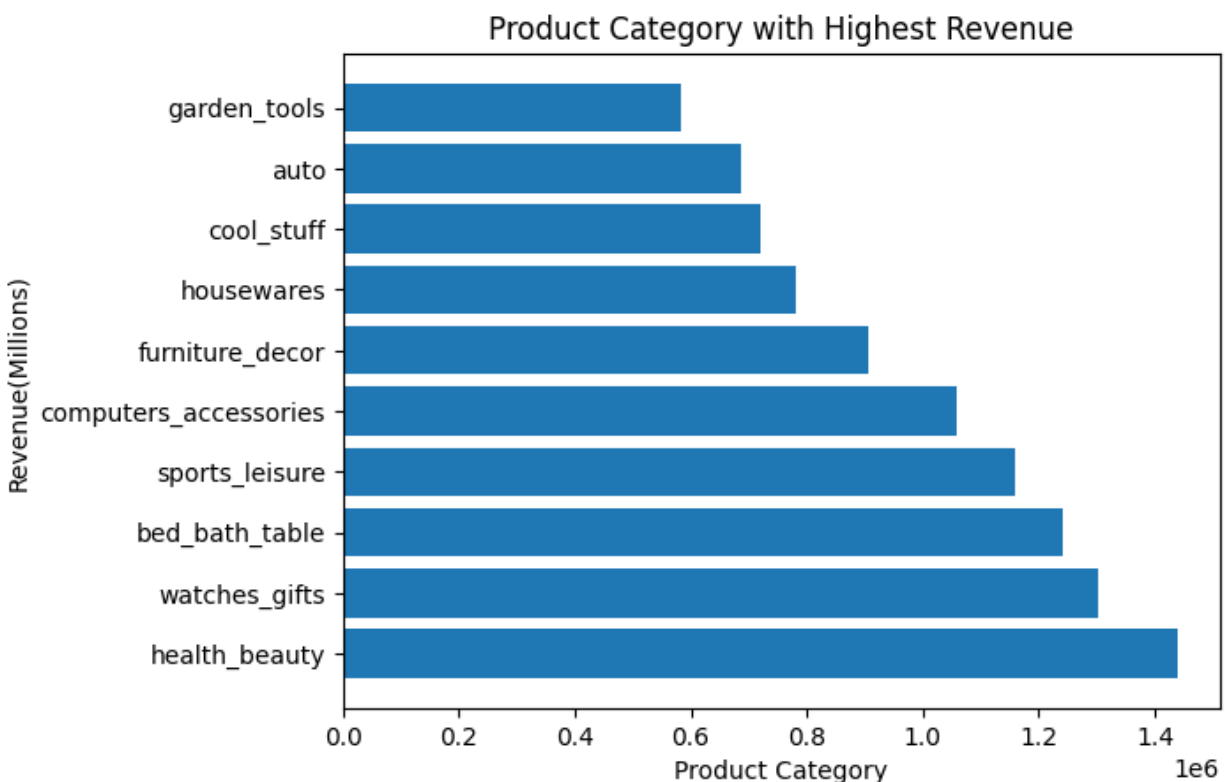


12.How do customer reviews and ratings affect sales and product performance on Olist?

Customer reviews and ratings play a significant role in influencing sales and product performance. Olist should actively monitor and respond to customer feedback to maintain a positive reputation and enhance customer trust.

13.Which product categories have the highest profit margins on Olist, and how can the company increase profitability across different categories?

Health beauty products generated the highest revenue among all categories, indicating the potential for higher profit margins. Olist can strategize to promote and expand the sales of these products as well as other top product category to increase overall profitability.



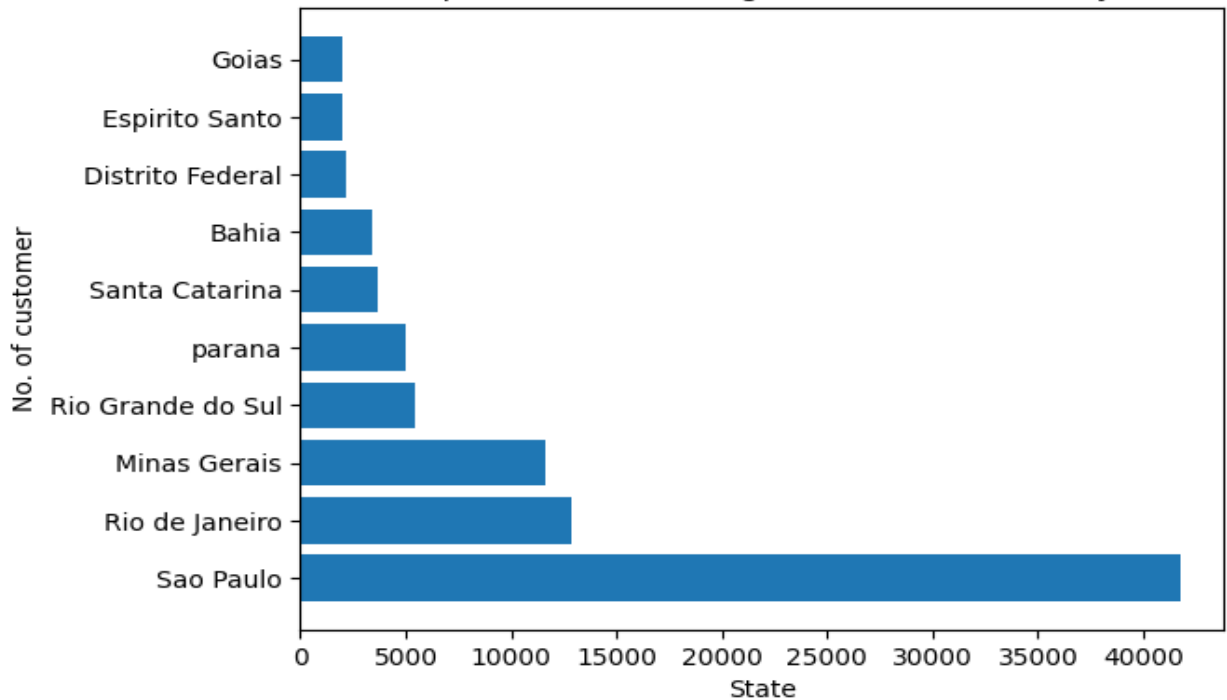
14.How does Olist's marketing spend and channel mix impact sales and customer acquisition costs, and how can the company optimize its marketing strategy to increase ROI?

To improve return on investment (ROI), Olist should carefully analyze its marketing spend and channel mix. Identifying the most effective marketing channels and campaigns can help the company allocate resources efficiently and target the right customer segments.

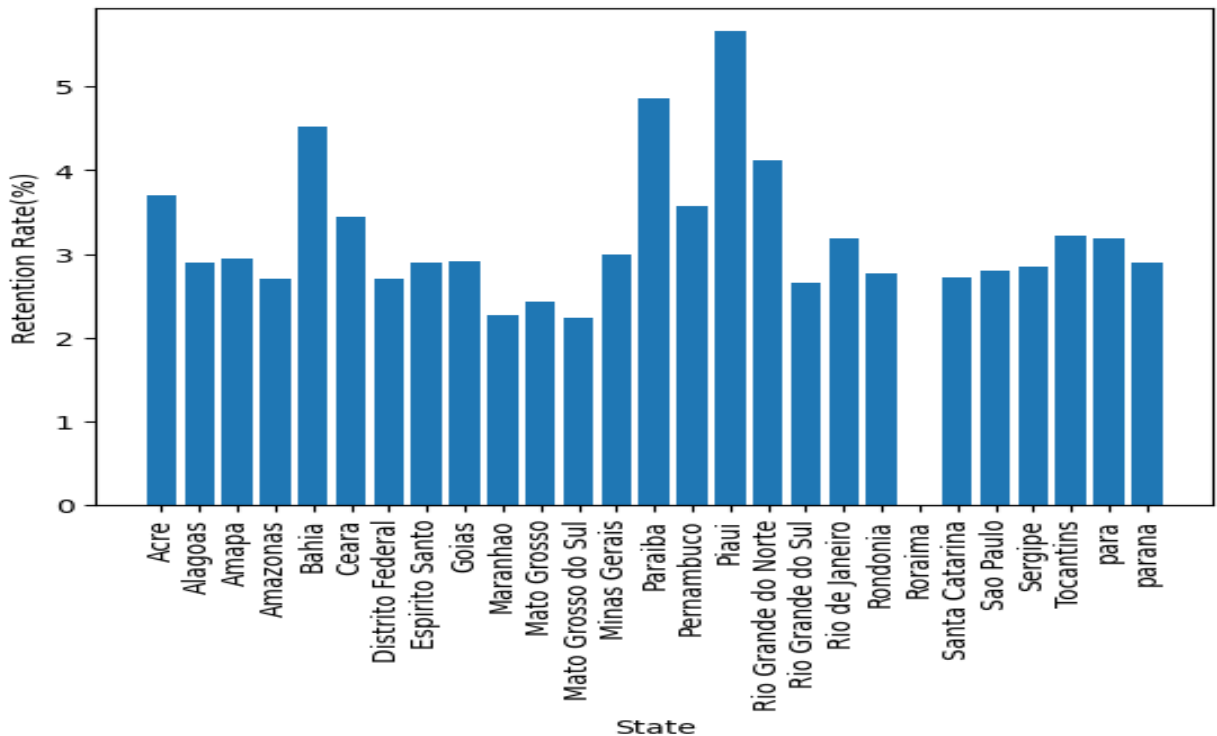
15. Geolocation having high customer density. Calculate customer retention rate according to geolocations.

Sao Paulo has the highest customer density, while Piaui has the highest customer retention rate. Understanding the factors contributing to higher retention rates in certain regions can guide Olist's efforts to retain more customers in other areas.

Top 10 States With Highest Customer Density



Customer Retention Rate



****Conclusion:****

In conclusion, the analysis of the Olist dataset provides valuable insights into the company's performance and customer behavior over the period from 2016 to 2018. Several key findings emerge from the data, offering opportunities for Olist to enhance its operations and maximize profitability.

1. **Revenue and Order Trends:** Olist experienced fluctuating revenue over time, with a peak in November 2017 and a decline in September 2018. To maintain consistent revenue growth, the company should investigate the factors behind these fluctuations and implement strategies to address them. Understanding monthly or seasonal order variations can aid in resource planning and targeted marketing efforts.
2. **Product Categories and Sales Volumes:** Identifying the most popular product categories, such as bed bath table, health beauty, and sports leisure, presents an opportunity for increased sales and improved profitability. Focusing on these categories and understanding their sales trends can optimize inventory management.
3. **Average Order Value (AOV) and Payment Methods:** Encouraging credit card usage and offering incentives for higher AOV orders can boost revenue. Analyzing payment methods by product category or geographic region can inform targeted marketing campaigns and improve customer satisfaction.
4. **Seller Engagement and Ratings:** Maintaining seller engagement and ensuring a seamless onboarding process for new sellers can foster growth on the platform. High seller ratings positively impact sales performance, necessitating continued emphasis on positive customer experiences and addressing concerns in lower-rated reviews.
5. **Customer Retention and Repeat Purchases:** Enhancing customer retention efforts is crucial for building customer loyalty and increasing the overall lifetime value of each customer. Encouraging repeat business can be achieved through excellent customer service and product quality.
6. **Product Profitability:** Health beauty products show the potential for higher profit margins. Olist should strategize to promote these products and other top-selling categories to increase overall profitability.
7. **Marketing Optimization:** Analyzing marketing spend and channel mix can lead to improved ROI. Identifying the most effective marketing channels and campaigns will help Olist allocate resources efficiently and target the right customer segments.

In light of these findings, Olist can refine its strategies and operations to align with customer preferences and market demands. By continuously monitoring performance metrics and adapting to market trends, Olist can position itself for sustained success in the competitive e-commerce landscape. The company's focus on customer satisfaction, product quality, and seller engagement will be key to fostering growth and solidifying its position as a leading player in the e-commerce industry.