

Olist Seller Performance Analysis Report

Executive Summary

This report presents a comprehensive analysis of seller performance within the Olist marketplace. The primary objectives of this study are to identify top-performing sellers, understand their delivery patterns, and pinpoint potential areas for operational improvements. This analysis builds upon prior investigations into sales trends and customer behavior (RFM analysis).

Methodology

The seller performance analysis was conducted by integrating data from the Olist dataset. Key performance metrics were calculated for each unique seller_id:

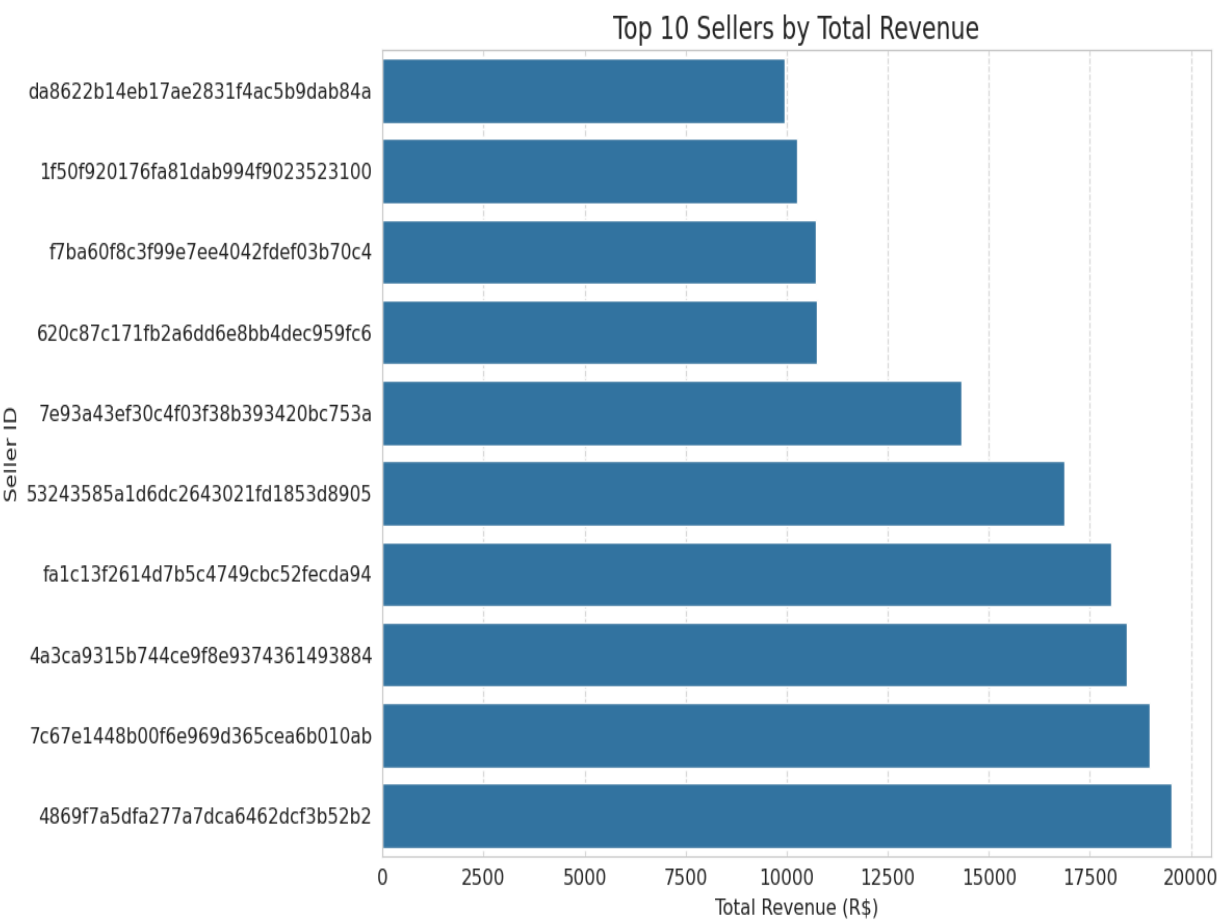
- **Total Revenue:** The aggregated sum of product prices (price) and freight values (freight_value) generated by each seller.
- **Total Orders:** The distinct count of orders successfully processed by each seller.
- **Average Delivery Time:** The average duration (in days) from the purchase timestamp to the customer delivery date.
- **Average Delivery Performance vs. Estimate:** The average difference (in days) between the actual delivery date and the estimated delivery date. A negative value indicates delivery ahead of schedule, while a positive value denotes a delay.

Results & Insights

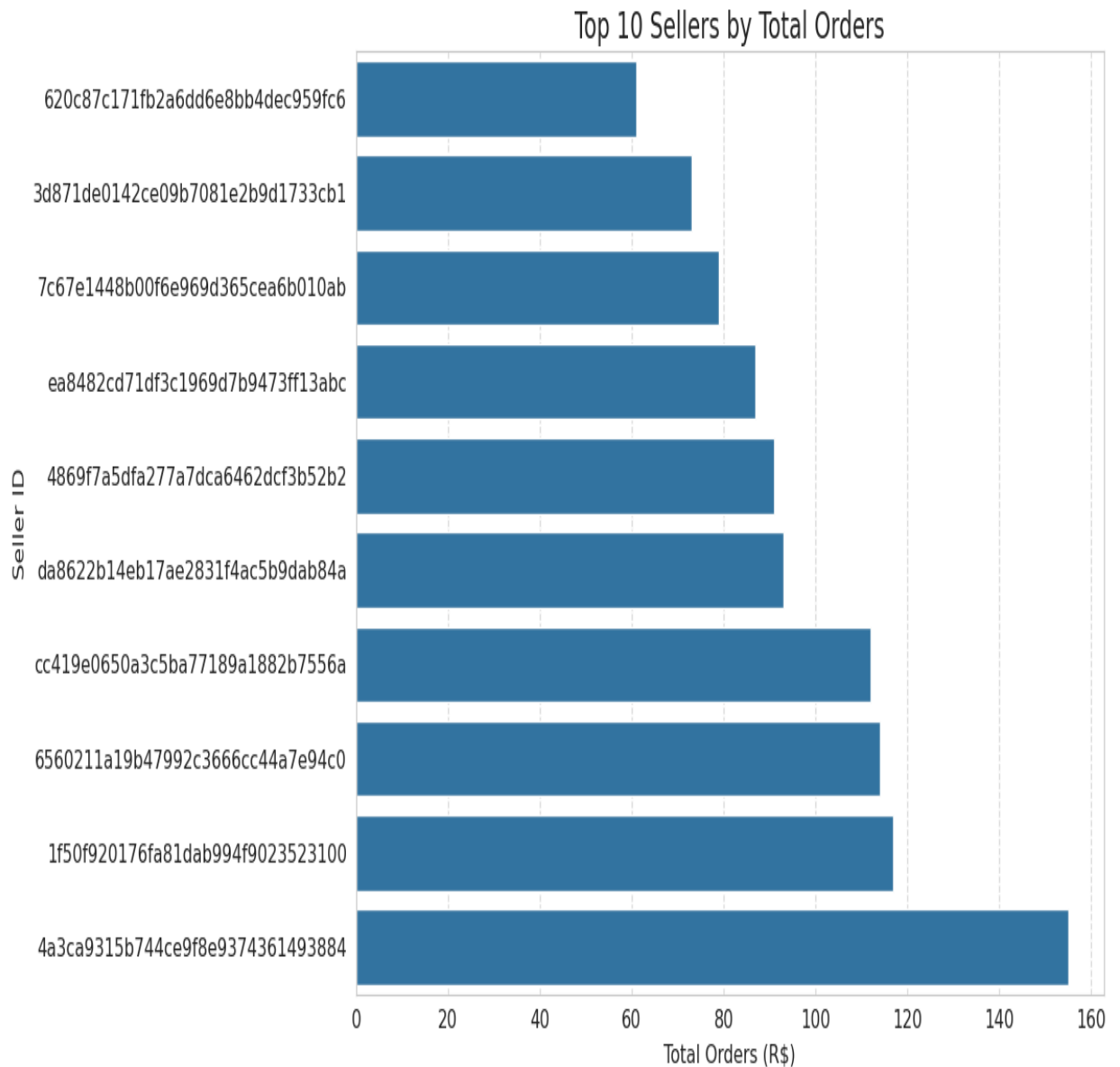
Top Sellers by Revenue and Order Volume

The analysis reveals a significant concentration of performance among a select group of sellers, contributing substantially to Olist's revenue and order volume:

- Top 10 Sellers by Total Revenue:** The "Top 10 Sellers by Total Revenue" plot highlights seller_ids with the highest revenue contribution. The leading sellers, such as 4869f7a5dfa277a7dca6462dcf3b52b2 and 7c67e1448b00f69e9d365cea6bb010ab, each generated close to **R\$ 20,000**. This clearly identifies the "high-value" sellers crucial to Olist's financial health.



- Top 10 Sellers by Total Orders:** The "Top 10 Sellers by Total Orders" plot showcases sellers with the highest transaction volumes. Seller 4a3ca9315b744ce9f8e9374361493884 leads with over **150** orders. These sellers are vital for maintaining the platform's operational flow and order fulfillment capacity.

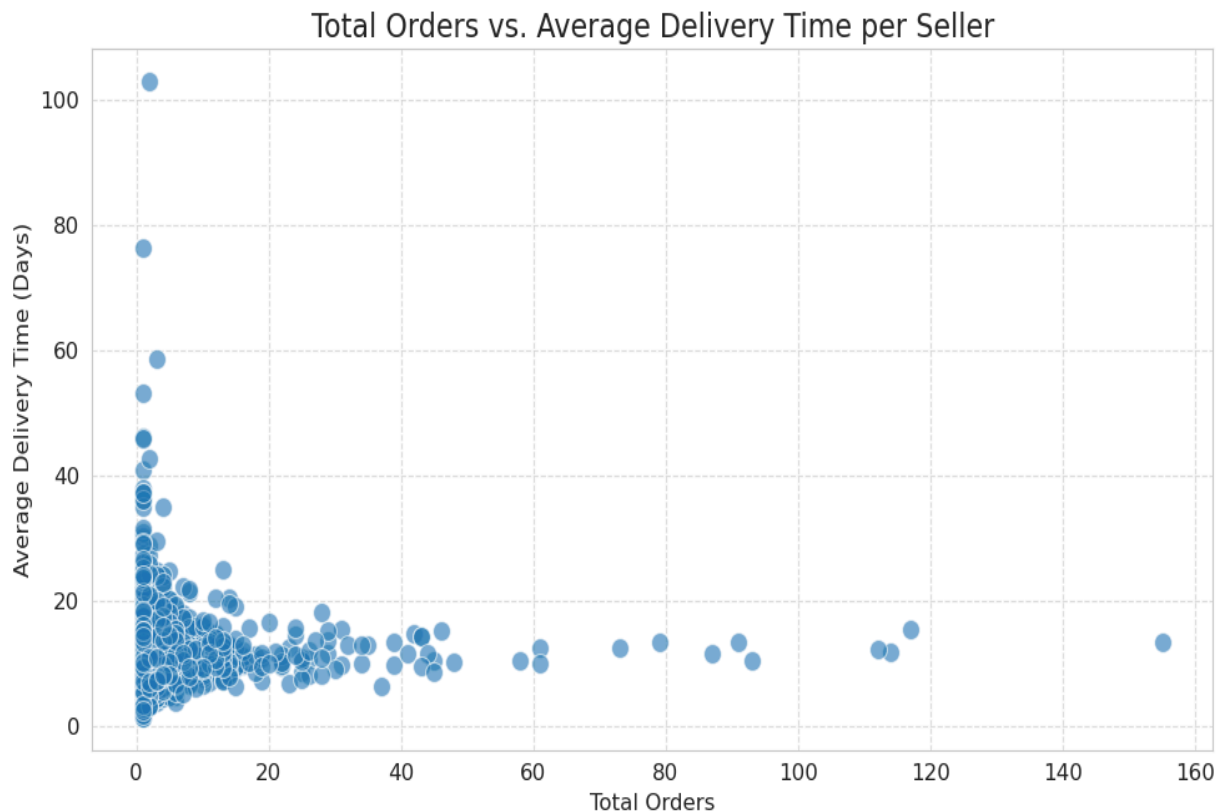


- "Star Sellers":** A notable overlap exists between the top revenue and top order volume lists (e.g., 4869f7a5dfa277a7dca6462dcf3b52b2 and 7c67e1448b00f69e9d365cea6bb010ab appear in both). This indicates a segment of **strategic sellers** who are efficient in both generating high value and handling significant transaction volumes.

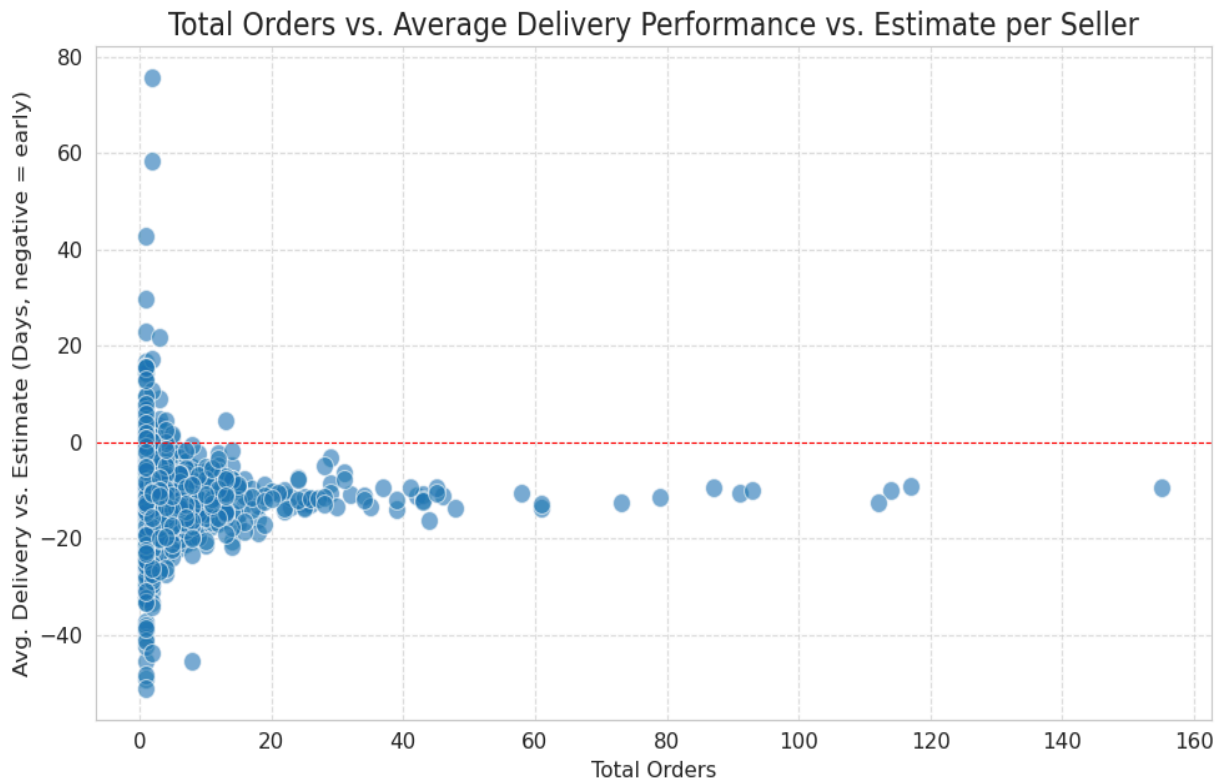
Seller Delivery Performance

A deep dive into seller delivery metrics provides critical insights into operational efficiency and customer satisfaction:

- **Total Orders vs. Average Delivery Time:** The "Total Orders vs. Average Delivery Time per Seller" scatter plot reveals that **the majority of sellers handle low order volumes with relatively fast average delivery times (under 20 days)**. Intriguingly, sellers with higher order volumes (e.g., over 40 orders) tend to maintain a stable average delivery time, often within **10-15** days. This suggests potential economies of scale where higher-volume or more experienced sellers achieve greater logistical efficiency.



- Total Orders vs. Delivery Performance vs. Estimate:** The "Total Orders vs. Average Delivery Performance vs. Estimate per Seller" plot highlights a remarkably positive aspect of Olist's operations. **The vast majority of sellers consistently deliver orders ahead of the estimated delivery date** (indicated by negative values on the Y-axis below the red zero line). This consistent outperformance of delivery estimates is a significant competitive advantage. High-volume sellers, in particular, demonstrate consistent early deliveries, often **5-20** days ahead of schedule.



- Identifying Delivery Anomalies:** Despite the overall strong performance, both delivery performance plots identify a few outliers (sellers with low order volumes but significantly delayed deliveries or those consistently far behind estimated dates). These specific cases warrant further investigation by Olist to understand and address underlying logistical or operational issues.

Business Recommendations

Based on the insights derived from the seller performance analysis, the following strategic recommendations are proposed for Olist:

- Implement a Tiered Seller Program:** Develop a prioritized partnership program for "star sellers" (those excelling in both revenue and order volume). This could include enhanced logistical support, exclusive promotional features, or reduced platform fees to foster loyalty and further

growth.

- **Optimize Logistics Support for Underperformers:** Proactively identify and support sellers exhibiting poor delivery times or frequent delays. This support could involve offering logistical training, best practices for packaging, or recommending more efficient shipping partners to improve their service levels.
- **Highlight Delivery Performance as a Key Value Proposition:** Olist should actively promote its sellers' consistent ability to deliver orders ahead of estimates to customers. This strong operational performance can significantly enhance customer satisfaction and attract new buyers to the platform.
- **Analyze Product Success of Top Sellers:** Conduct further analysis into the specific products and strategies employed by top-performing sellers. The findings can be leveraged to guide other sellers in identifying market opportunities and optimizing their product listings for better success.

Conclusion

The seller performance analysis confirms that Olist benefits from a core group of high-performing sellers who drive a substantial portion of the platform's revenue and order volume. Crucially, these sellers, and the majority of the seller base, demonstrate exceptional delivery efficiency, frequently exceeding estimated delivery times. By strategically supporting top sellers and proactively addressing performance issues with underperforming ones, Olist can further optimize its marketplace ecosystem, reinforce its competitive advantages, and elevate overall customer satisfaction.