

# Executive Summary

## Olist E-Commerce Dataset Analysis

**Objective:** Analyze customer, order, and product data from the Brazilian e-commerce platform Olist to extract actionable business insights.

**Dataset:** 9 CSV files covering orders, customers, payments, reviews, products, sellers, and geolocation. Over 100K orders and rich metadata.

### Key Findings:

- **Stable Order Volume, Volatile Revenue:** Order counts remained consistent, but revenue spiked and dropped sharply, indicating influence from pricing or product mix.
- **Geographic Concentration:** São Paulo (SP) accounts for over 40% of customers. RJ, MG, and RS follow. Northern states show minimal activity.
- **Customer Satisfaction:** 80% of reviews score 4 or 5. Score 5 dominates, indicating strong platform experience.
- **Delivery Delays Impact Reviews:** Correlation of **-0.267** between delivery delay and review score confirms that late deliveries reduce satisfaction.
- **High-Value Customers:** Segmentation by frequency and spend reveals repeat buyers with elevated average order values.

### Recommendations:

1. Improve delivery logistics to reduce delays and boost review scores.
2. Prioritize high-density regions (SP, RJ, MG) for marketing and seller onboarding.
3. Segment and engage high-value customers with loyalty programs.
4. Audit incomplete product metadata to improve discoverability.
5. Investigate revenue spikes for replicable pricing or product strategies.

**Visuals:** Charts included in the full report:

- Order Volume and Revenue Over Time
- Customer Distribution by State
- Review Score Distribution

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