# Churn Analysis and Revenue Insights
## Brazilian E-Commerce Public Dataset by Olist

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## Executive Summary

This report summarizes key findings from the recent churn and revenue analysis conducted for our ecommerce platform. With a total revenue of $15.42M and 107,000 orders processed, we observe strong business scale alongside retention challenges. The churn rate remains high at 93.72%, indicating a large proportion of single-purchase customers. Delivery performance shows early deliveries on average but requires careful interpretation.

**Key Performance Indicators (KPIs):**

- **Total Revenue:** $15.42M
- **Total Orders:** 107,000
- **Distinct Customers:** 99,000
- **Churn Rate:** 93.72%
- **Average Delivery Delay:** -12 days (early deliveries)

## Insights and Patterns

- **Revenue Growth:** Total revenue trends upward from 2016 through 2018, with some seasonality and promotional peaks.
- **High Churn:** With nearly 94% churn, customer retention remains a critical concern to drive sustainable growth.
- **Product Category Concentration:** Categories like *watches_gifts*, *sports_leisure*, and *toys* dominate revenue, representing key strategic areas.
- **Review Scores:** Middle-range review scores (3 stars) dominate, alongside a non-trivial number of low (1-2 star) reviews, indicating areas for quality and service improvement.
- **Geographic Clustering:** Customers cluster in key cities across South America, Asia, and Europe, guiding regional marketing and logistic strategies.
- **Delivery Timeliness:** An average delivery delay of -12 days indicates many early deliveries, which can be a competitive advantage but requires review date accuracy.

## Business Implications and Recommendations

### 1. Enhance Customer Retention

- Develop loyalty programs targeting first-time buyers to increase repeat purchases.

- Conduct granular churn analyses segmented by product categories and geography to tailor retention strategies.

### 2. Optimize Delivery Performance

- Investigate delivery process to verify accuracy of estimated delivery dates.

- Maintain and emphasize early delivery as a key competitive differentiator while reducing late deliveries.

### 3. Focus Marketing and Investment

- Allocate more marketing and inventory resources towards high-performing categories: *watches_gifts*, *sports_leisure*, and *toys*.

- Explore cross-selling opportunities to increase customer basket size.

### 4. Regional Strategy Optimization

- Optimize logistics and fulfillment centers in regions with high customer density.

- Implement localized marketing campaigns reflecting regional preferences.

## Conclusion

While the business exhibits strong sales volume and increasing revenue, the high churn rate and uneven customer satisfaction scores highlight the importance of focusing on customer retention and delivery performance improvements. Strategic prioritization of key product categories and geographic market dynamics will support sustainable growth and enhanced customer experience.

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