

Data Analysis Report

for Brazilian E-Commerce **Public Dataset by Olist**

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We are pleased to present this comprehensive visualization report based on the Power BI analysis of your e-commerce data, as detailed in the provided PDF. This report summarizes key insights from the Financial Overview, Order Breakdown, Delivery Insights, and Advanced Insights sections, covering the period from January 2017 to July 2018 (with some data extending back to September 2016). Below, we outline the findings from each section and provide actionable recommendations to support your business objectives.

1. Financial Overview

The Financial Overview section summarizes your core financial metrics and trends, offering a snapshot of revenue performance over time.

• Key Metrics:

- Revenue Reconciliation: 2.16K, reflecting adjustments between expected and actual revenue.
- o **Total Payments Received**: 19.88M, indicating strong cash inflows.
- o **Total Revenue**: 16.19M, representing revenue earned during the period.

• Revenue Trends:

- A line chart compares Total Revenue (dark red line) and Expected Revenue (orange line) from January 2017 to July 2018.
- o Total revenue increased steadily from January 2017, peaking at approximately 1.0M around July 2017, followed by fluctuations and a decline by July 2018.
- Expected revenue mirrored this trend but remained slightly below or equal to total revenue, also dropping by mid-2018.
- **Insight**: The financial performance was robust in 2017, with payments received exceeding total revenue, possibly due to timing differences. However, the sharp decline in both total and expected revenue in 2018 suggests potential market or operational challenges that require further investigation.

2. Order Breakdown

The Order Breakdown section analyzes order trends, including total orders, status distribution, and average order value, providing insights into customer demand and fulfillment efficiency.

• Key Metrics:

- o Average Order Value: R\$3,023.7K, reflecting a significant per-order value.
- o Order Status Distribution (via pie chart for total order value by status):
 - **Delivered**: 97.27% (16.19M), the vast majority of orders.
 - **Shipped**: 1.17% (0.2M), a small but notable segment.
 - Canceled: 0.68% (0.11M), minimal impact.
 - Other statuses (processing, invoiced, unavailable, approved) have negligible contributions.

• Order Trends:

o A bar chart of **Total Orders by Month** shows a clear increase in order volume from 2016 to 2018, with peaks in 2017 and 2018 reaching up to 8,000 orders in some months.

• **Insight**: The high delivery rate (97.27%) indicates strong fulfillment performance, while the growth in order volume reflects rising demand. The small percentages of shipped and canceled orders suggest minor inefficiencies that could be addressed to enhance customer satisfaction.

3. Delivery Insights

The Delivery Insights section evaluates delivery performance, focusing on late deliveries and average delay days, critical factors in customer experience.

- Key Metrics:
 - o Average Delay Days: 248.28 days, an alarmingly high figure.
 - O Sum of Late Deliveries by Year and Month (via bar chart):
 - **2016**: Minimal late deliveries (e.g., September and December near 0).
 - 2017: Peaked at \sim 1,500 late deliveries in July, with high numbers in August (\sim 1,000).
 - 2018: Decreased to \sim 500 late deliveries, with peaks in January and February (\sim 1,000 each).
- **Insight**: The average delay of 248.28 days highlights significant inefficiencies in the delivery process, despite a reduction in late deliveries from 2017 to 2018. The peak in July 2017 suggests seasonal or operational bottlenecks that need resolution to improve timeliness.

4. Advanced Insights

The Advanced Insights section provides deeper analysis through visualizations, such as order status distribution by month, to identify trends and operational patterns.

- Key Visualization:
 - o **Orders Status Distribution by Month**: Tracks statuses (approved, canceled, delivered, invoiced, shipped) over time, offering a granular view of fulfillment dynamics.
- **Insight**: This section enables detailed tracking of order status trends, helping pinpoint bottlenecks (e.g., delays in processing or shipping) or successful periods (e.g., high delivery rates). While specific monthly data isn't fully detailed, it supports strategic operational improvements.

Recommendations

Based on the Power BI analysis, we propose the following actions to optimize your operations:

1. Investigate Revenue Decline:

 Analyze the 2018 revenue drop (both total and expected) to identify causes—market shifts, customer churn, or internal factors—and develop mitigation strategies.

2. Reduce Delivery Delays:

o Address the 248.28-day average delay by auditing logistics, supplier performance, and inventory management, especially targeting peak delay months like July 2017.

3. Enhance Order Fulfillment:

Minimize canceled (0.68%) and shipped-but-not-delivered (1.17%) orders through improved inventory accuracy and faster shipping processes.

4. Leverage Payment Type Insights:

• Use the payment type filter (boleto, credit card, debit card, voucher) to identify high-performing methods and optimize payment strategies.

5. Capitalize on Order Growth:

Scale operations to sustain the upward trend in total orders (peaking at 8,000/month), ensuring capacity aligns with demand.

Conclusion

This visualization report offers a holistic view of your financial performance, order trends, and delivery efficiency from January 2017 to July 2018. Key strengths include strong revenue in 2017 and a high delivery rate (97.27%), while challenges like the 2018 revenue decline and significant delivery delays require attention. By acting on the recommendations—particularly addressing delays and investigating revenue trends—you can enhance operational efficiency and customer satisfaction.

We are available to provide further analysis, dive deeper into specific areas, or address any questions you may have. Thank you for trusting us with your data insights.

Best regards,

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