Shop Nest Store (Sales and Orders Analysis)

# Delayed Orders Analysis

Question: Determine the number of delayed orders and display it by category (using available fields). Chart Description: We count an order as *delayed* if its actual delivery date is later than the estimated delivery date, and *on time* otherwise. A bar chart can compare total delays vs. on time orders (overall or by year). Our data show that out of 96,476 delivered orders, 34,308 (35.6%) were delayed while 62,168 were on time. For example, in 2017 there were 15,077 delays vs. 28,349 on time orders; in 2018 delays rose to 19,139 (36.3%). The remaining orders had missing dates.

Findings: The volume of delayed shipments is substantial, over one third of deliveries, which is important because late deliveries erode customer trust. Most delays occur in high‑volume states (São Paulo, Rio de Janeiro, Minas Gerais, etc.), consistent with the fact that Brazil’s Southeast region (SP/ RJ/MG/ES) accounts for roughly two thirds of online orders. This suggests that logistical bottlenecks in those regions drive many delays. In summary, a significant share of orders is late; improving delivery reliability would likely boost customer satisfaction.

# Monthly Comparison of Delayed and On Time Orders

Question: Compare delayed vs. on time orders by month. (Classify each order by its delivery date relative to the estimate.)

Chart Description: A clustered bar or line chart shows monthly counts of on time and delayed orders. For each month (based on purchase date), one bar for “On Time” and one for “Delayed” orders illustrates trends over time. Our data reveal seasonal peaks: for example, November 2017 had ~2,446 delayed vs. 4,531 on time orders, a large spike correlating with Black Friday sales. Similarly, January and December show higher volumes, while spring/summer months are lower. Over 2017 to 2018 the delayed vs. on time ratio stays around 25 to 35%.

Findings: Delays tend to rise when overall order volume rises. The big peak in late 2017 coincides with holiday promotions (Black Friday/Cyber Monday), and a second spike in late 2018 follows a similar pattern. This matches industry trends: Brazil’s end of year shopping season (Black Friday, Cyber Monday, Christmas) drives ~25% of annual online sales. In high traffic months like these, our data shows both more orders and more delays. In calmer months the delay rate is lower. This suggests that supply chain strain during peak season contributes to delays.

# Payment Method Analysis

Question: What are the most frequently used payment methods? (From the order payments table.) Chart Description: A simple bar chart lists payment types (credit card, boleto, voucher, debit card) on the x axis and count of orders on the y axis. The chart would show Credit Card by far the tallest bar, followed by Boleto (bank slip), then Voucher, with Debit Card very low. Specifically, credit cards account for about 73.9% of transactions, boleto ~19.0%, vouchers ~5.6%, and debit cards ~1.5% (with a negligible “not defined” category).

Findings: The dominance of credit cards (nearly three quarters of payments) matches known trends in Brazilian e commerce. Industry sources note that Brazilians *frequently use credit and debit cards* online. In our data, credit card usage (73.9%) and boleto (19.0%) are almost identical to these benchmarks. This indicates Shop Nest customers prefer the flexibility of credit (often paid in installments) and traditional boleto payments. A bullet list of method shares:

* Credit Card: ~74% of orders
* Boleto (bank slip): ~19%
* Voucher: ~5.6%
* Debit Card: ~1.5%

This payment mix is typical: one study found ~73.8% credit card and ~19.5% boleto, reflecting the same split.

# Product Rating Analysis

Question: What is the distribution of customer review scores? (From order reviews.)

Chart Description: A histogram or bar chart of review scores (1 through 5) shows the count of reviews at each score. The distribution is highly skewed toward the top end: Score 5 (Excellent) is the most frequent, followed by 4 (Very Good); lower scores (1 to 3) occur much less. Concretely, we see about 57.4% of reviews are 5 stars, 19.2% are 4 stars, 11.9% are 1 star, 8.6% are 3 star, and 3.2% are 2 star.

Findings: The review ratings form a classic “J shaped” distribution, dominated by high scores. This is consistent with known e commerce patterns: a study notes that “rating 5 is highest, followed by 4, then rating 1” with 2 and 3 rare. In our data, roughly 77% of ratings are 4 or 5 (Very Good/Excellent), indicating strong customer satisfaction overall. Lower scores are uncommon, which is encouraging but also means only a minority of customers report dissatisfaction. This positive skewer suggests that most customers are happy with their orders, but the small tail of low scores highlights some pain points worth investigating (e.g. product issues or delivery problems). Understanding this distribution is critical, as high satisfaction rates can boost repeat business, while the negative outliers could flag systemic issues.

# State wise Sales Analysis

Question: What is sales volume (revenue) per customer state?

Chart Description: A bar chart of Brazilian states on the x axis versus total revenue (sum of payments) on the y axis, or a filled map of Brazil shaded by revenue. The bars for São Paulo (SP), Rio de Janeiro (RJ), Minas Gerais (MG), etc., tower over others. For instance, SP alone accounts for roughly R$5.998M (~36% of revenue), RJ ~R$2.144M (13%), MG ~R$1.872M (11%), followed by RS, PR, SC around 4 to 5% each.

Lower figures appear for smaller states (northern and interior states are below 2%).

Findings: Sales are highly concentrated in Brazil’s Southeast: SP, RJ, MG (and Espírito Santo) together make up most of the revenue. This mirrors market demographics – one report says nearly two thirds of Brazilian e commerce orders go to four southeastern states. In our data, SP alone contributes about one third of all sales. For example:

* São Paulo (SP): ~R$5.99M (~36%)
* Rio de Janeiro (RJ): ~R$2.14M (~13%)
* Minas Gerais (MG): ~R$1.87M (~11%)
* Rio Grande do Sul (RS): ~R$0.89M (~5%)
* Paraná (PR): ~R$0.81M (~5%)

These five account for ~70% of revenue. The dominance of SP/RJ is expected given population and income levels, and it aligns with the industry observation that the Southeast region dominates Brazil’s online shopping.Business wise, this implies focusing marketing and logistics in these key states could yield the highest returns.

# Seasonal Sales Patterns

Question: How does revenue vary over time (monthly/seasonally)? (Using orders or payments data by purchase date.)

Chart Description: A time series line chart of monthly revenue (or a bar chart by month) clearly shows recurring peaks and troughs. In our data (2017 to 2018), revenue spikes occur in late year and early year months. The highest peak is November 2017 (~R$1.13M) with another high in January 2018 (~R$0.97M). Other peaks align with November 2018 (~Black Friday) and July 2018. Mid year (spring/ summer) months tend to be lower.

Findings: These patterns highlight strong seasonality. The largest spikes coincide with Brazil’s major shopping events: Black Friday/Cyber Monday in November and the Christmas/New Year period. Indeed, Brazil reports that Christmas and Black Friday together drive about a quarter of annual e commerce sales. Our data reflect this: November 2017 saw the single largest monthly revenue, and December/January remain elevated. Slower months (e.g. March, September) occur outside these peak seasons. The seasonal trend is important for planning: inventory and staffing should be ramped up in Q4, and marketing campaigns should align with these high demand periods.

# Revenue Analysis

Question: What is the total revenue and how does it trend over time?

Chart Description: A line chart of cumulative or monthly revenue trend shows the overall growth. We can annotate year totals. In our period (2016 to 2018), total revenue amounts to about R$16.0 million. Yearly totals grew from roughly R$7.25M in 2017 to R$8.70M in 2018 (about a 20% increase). The chart slopes upward over time with the seasonal bumps.

Findings: Shop Nest’s revenue is trending upward. We see a clear year over year rise (~+20% from 2017 to 2018), reflecting a healthy growth trajectory. This matches broader market trends: Brazil’s e commerce market has been expanding at roughly double digit rates (2023 revenue was up ~9.5% from 2022). The overall increase in our data aligns with these national figures. In summary, the business shows solid top line growth, driven by both increased order volume and the exploitation of peak sales events. Continuous monitoring of this trend will be critical; for example, ensuring that revenue growth is not solely seasonal but maintained year round will indicate sustainable expansion.

Sources: Industry reports and analyses were used to contextualize findings (e.g. the impact of on time delivery on satisfaction, typical payment shares, and Brazil’s e commerce seasonality). Metrics above are computed directly from the provided Shop Nest datasets.