

Business Case Study - Target E-Commerce

E-Commerce Data Insights Report (2016–2018)

Time Range Analysis

Orders were placed between September 2016 and October 2018, providing a rich time frame to study customer behavior, seasonality, and sales trends.

Customer Demographics (Cities and States)

During this period, orders were placed from 27 states and 4119 cities. This wide geographical distribution highlights a diverse customer base, with opportunities for targeted marketing in underperforming regions.

Order Growth Trends

- The number of orders increased exponentially between 2016 and 2017, indicating a successful period for customer acquisition and sales growth.
- Monthly trends revealed significant order spikes in November 2017 due to Black Friday Sales and during January 2017 and 2018 around New Year's Eve, emphasizing the importance of holiday promotions.

Customer Ordering Behavior

- Afternoon (1–6 PM) had the highest number of orders, followed by Night (7 PM–12 AM).
- This suggests that targeted marketing campaigns during these hours could maximize sales, focusing on peak customer activity times.

State-Wise Sales Distribution

- SP consistently generated the highest number of orders month-on-month, making it the strongest performing state in terms of sales.
- RR had the fewest customers, presenting an opportunity for expanding the market share in this region.

Percent Increase in Costs (Year-over-Year)

There was a 137% increase in total payment value from 2017 to 2018 (January to August). This strong growth reflects the effectiveness of sales strategies and customer spending.

Order Value by State

- SP had the highest total and average order value.
- States with lower average spending can be targeted with customized promotions to encourage higher spending or product bundling strategies.

Freight Value (Shipping Costs)

- SP had the highest total freight cost, signaling potentially expensive shipping/logistics processes. Optimizing logistics in high-cost states could help reduce overall expenses.

Order Delivery Analysis

- Delivery times and differences between actual and estimated delivery dates provided insights into the efficiency of the delivery process. Reducing delivery delays will enhance customer satisfaction and improve trust in the service.

Top 5 States by Freight Cost

Analyzing freight costs showed that some states experienced much higher shipping costs. Addressing supply chain inefficiencies in these areas can improve profitability and customer satisfaction.

Top-Selling Product Categories

Product category analysis showed that certain categories contributed the most to overall sales revenue. Identifying these categories helps in inventory management and promotional focus.

Sellers' Performance

Top-performing sellers were identified, with seller "6560211a19b47992c3666cc44a7e94c0" having the most orders, while seller "7c67e1448b00f6e969d365cea6b010ab" generated the highest revenue.

Payment Method Popularity

Credit cards were the most popular payment method, followed by UPI. Knowing payment preferences helps streamline checkout processes and reduce friction for customers.

Top and Lowest Spending Customers

- The top 5 highest-spending customers contributed significantly to total revenue, while the 5 lowest-spending customers still engaged with the platform.
- Targeting high spenders with loyalty programs and lower spenders with tailored offers could increase overall customer lifetime value.

Key Recommendations

- ✓ Optimize Logistics: Focus on improving freight efficiency in states with high shipping costs.
- ✓ Targeted Marketing: Implement region-specific promotions and focus on peak purchasing hours for maximum impact.
- ✓ Expand in Underperforming Areas: Invest in marketing campaigns in states with fewer orders and customers.
- ✓ Improve Delivery Processes: Streamline delivery operations to reduce delays and enhance customer satisfaction.