

Data Storytelling: E-Commerce Sales & Customer Insights

Introduction

- The global e-commerce industry has grown rapidly, with businesses seeking to understand customer behavior, product performance, and market trends. This project leverages Google Looker Studio to build an interactive dashboard that provides a comprehensive view of sales, revenue, customer segments, and product performance across multiple regions.
- By analyzing over 18,500 orders, 4,300 customers, and 8.27M USD in total revenue, this dashboard transforms raw data into actionable insights. It highlights not only where sales are coming from, but also who the key customers are, which products drive revenue, and how performance varies across countries and categories.

Revenue and Sales Trends

- The business generated \$8.27M in total revenue from 18,536 orders, with an average order value of \$446.62. Monthly revenue trends reveal strong seasonality, with revenue steadily growing throughout the year and peaking above \$3.5M.
- Interestingly, the highest sales volume is not evenly distributed, suggesting that targeted campaigns or seasonal demand heavily influence spikes. This indicates opportunities for businesses to align promotions with high-performing months to maximize returns.

Customer Insights

- The company served 4,372 unique customers, with spending concentrated among a smaller group. The top 10 customers alone contributed more than \$1.3M in revenue, demonstrating the critical role of high-value buyers.
- Segmentation based on frequency vs. revenue shows that while many customers make one-time purchases, loyal and frequent buyers deliver significantly higher revenue. This highlights the importance of retention strategies, such as loyalty programs, personalized recommendations, and targeted marketing.

Global Market Distribution

- Geographical analysis shows the United Kingdom dominates overall revenue, while countries like Netherlands, Australia, Japan, and Switzerland lead in average order value (ranging from \$1,000 – \$3,000).

This insight suggests two key strategies:

- Focus on volume sales in established markets like the UK.
- Explore premium product positioning in markets with higher average spending, such as the Netherlands and Australia.

Data Storytelling: E-Commerce Sales & Customer Insights

Product Category Performance

- The “Other” category accounts for 74% of total sales, followed by Bags & Accessories (10%), Home & Kitchen, and Gifts & Seasonal items.

Top products by revenue include:

- Regency Cake Stand (\$132K)
- White Hanging Heart T-Light Holder (\$94K)
- Jumbo Bag Retro spot (\$83K)

- These products indicate strong consumer interest in decorative and lifestyle goods, particularly those with seasonal or gifting appeal. Expanding inventory in these categories could drive further growth.

Refunds and Cancellations

- Refund and cancellation data shows moderate financial impact, with the largest single refund around \$900. Most refunds are concentrated in the UK and Germany, suggesting operational inefficiencies or customer dissatisfaction in these regions. Reducing refunds through better quality checks, accurate product descriptions, and enhanced customer service can help improve profitability.

Key Takeaways

1. Revenue Growth – Strong seasonal peaks highlight the need for planned campaigns during high-demand months.
2. Customer Dependence – A small group of top buyers drives a significant portion of revenue, making retention a top priority.
3. Regional Strategy – UK delivers bulk sales, but countries like the Netherlands offer higher order values, presenting opportunities for market differentiation.
4. Product Opportunities – Lifestyle, seasonal, and gifting categories dominate sales, indicating where businesses should invest.
5. Refund Management – Targeted process improvements in key markets could reduce revenue leakage.

Conclusion

- This Looker Studio dashboard demonstrates how data can move beyond static reports to become a decision-making tool for e-commerce growth. By integrating customer, product, and regional insights, businesses gain a holistic view of operations and can align strategies to maximize revenue, improve customer satisfaction, and strengthen global market presence.

- In essence, this project transforms millions of rows of raw e-commerce data into a clear narrative: a growing business with strong seasonal patterns, loyal high-value customers, and significant opportunities for targeted expansion.