



Customer Shopping Behavior Analysis

Uncovering insights from 3,900 purchases to guide strategic business decisions



DATASET OVERVIEW

The Foundation

3,900

Total Purchases

Transactions analyzed

18

Data Points

Features per customer

\$59.76

Avg Purchase

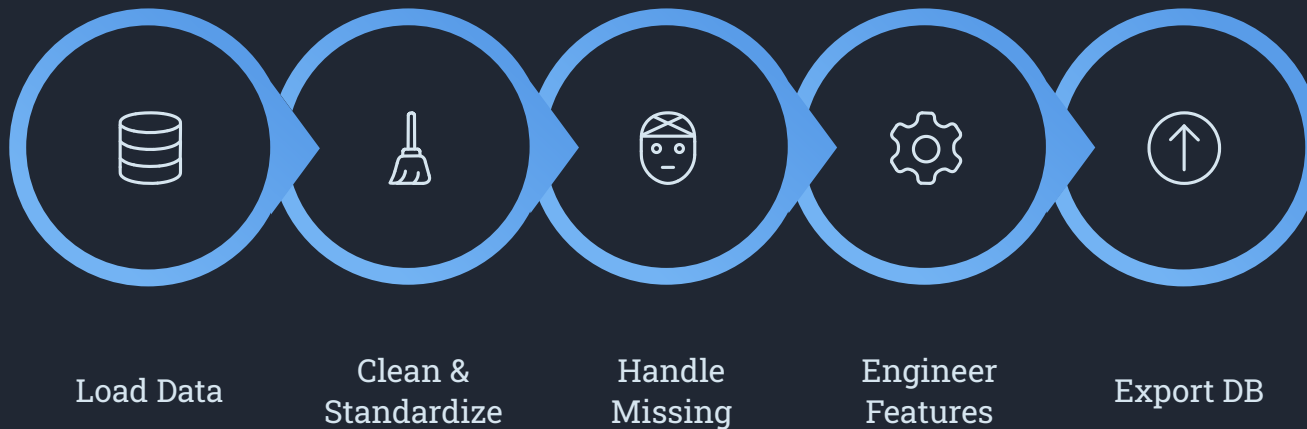
Per transaction

3.75

Avg Rating

Customer satisfaction

Data Preparation Process



Systematic approach to ensure data quality and consistency

Missing Data

37 values imputed using median ratings

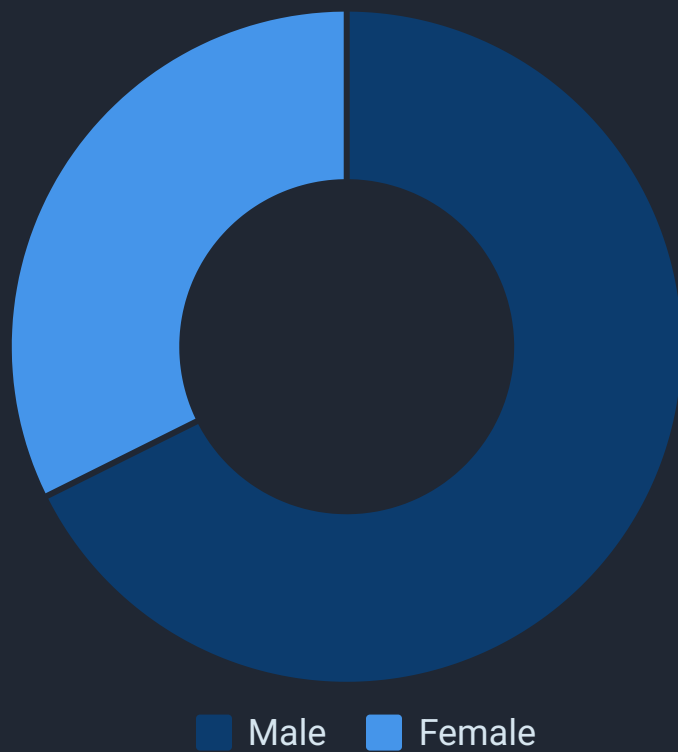
Feature Engineering

Created age groups and purchase frequency metrics

Standardization

Renamed columns to snake_case format

Revenue by Gender



Male customers drive 68% of total revenue

Male shoppers generated \$157,890 compared to \$75,191 from female customers—a significant opportunity for targeted marketing strategies.

Smart Discount Users



High-Value Shoppers

839 customers used discounts but spent above average



Top-Rated Products

Gloves (3.86), Sandals (3.84), Boots (3.82)
lead ratings

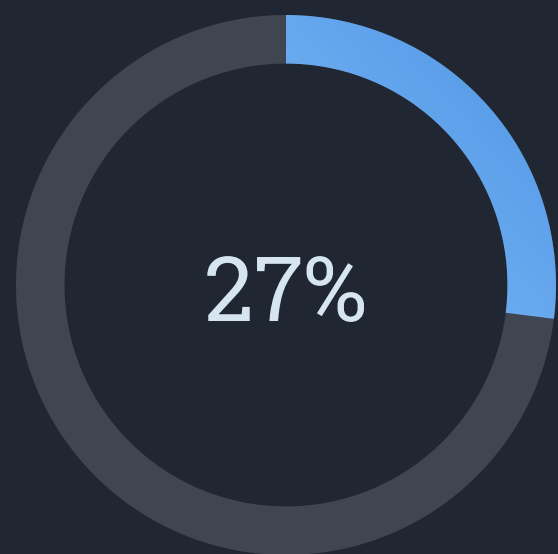


Shipping Preferences

Express shipping users spend \$2 more on average (\$60.48 vs \$58.46)

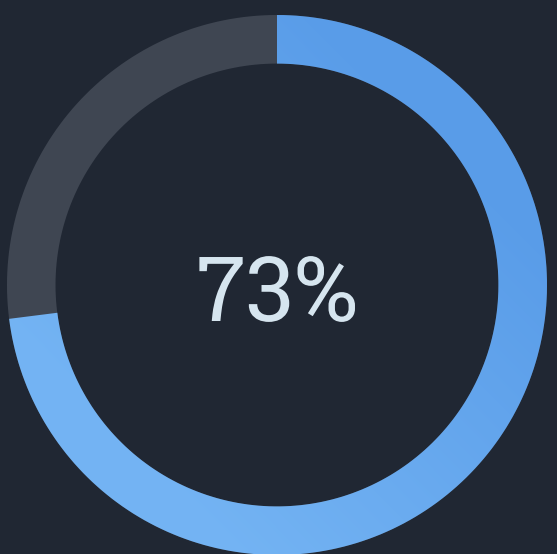
Subscription Impact Analysis

Subscribers represent 27% of customers but show similar spending patterns to non-subscribers. Key opportunity to enhance subscription value proposition.



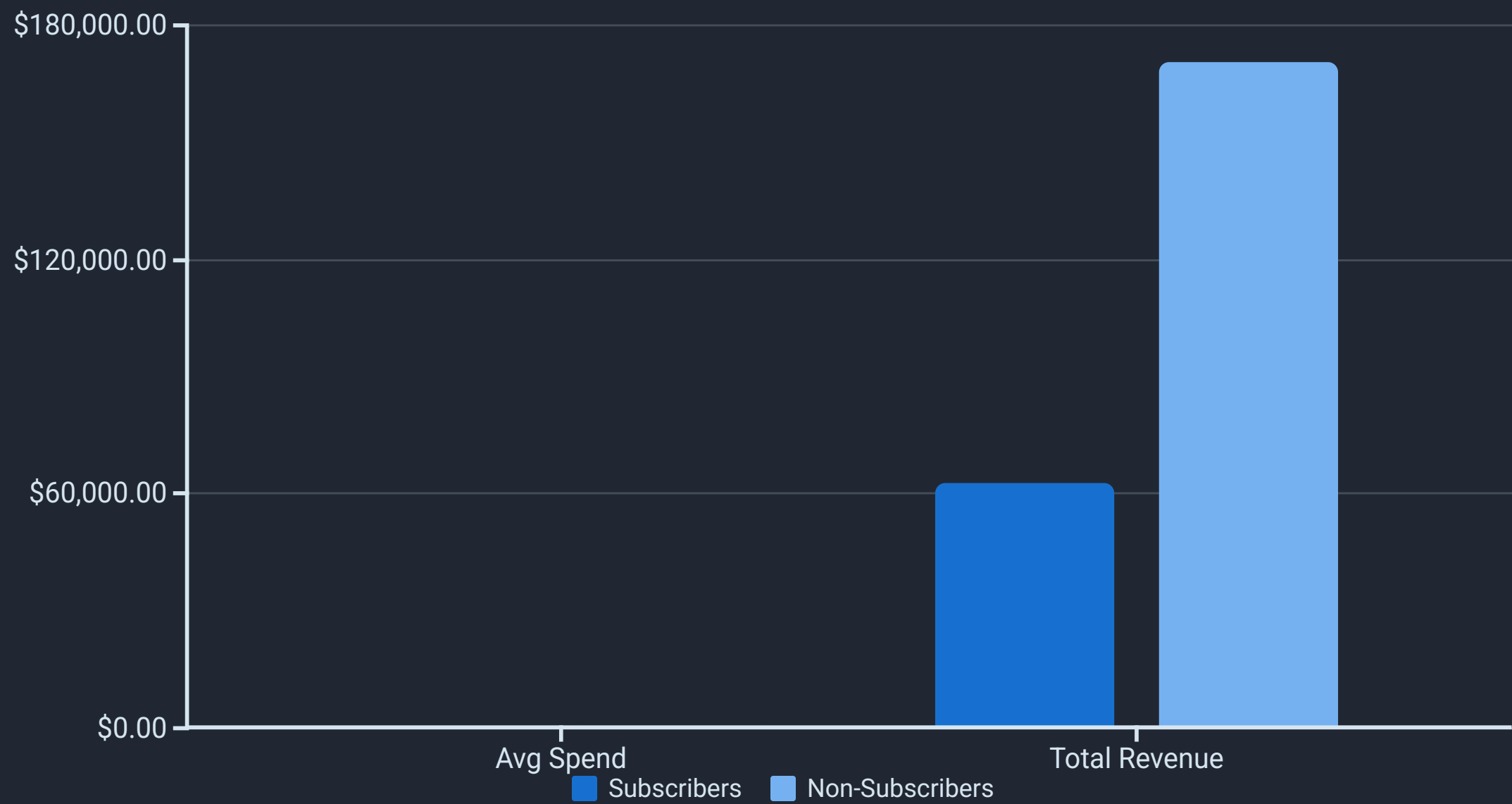
Subscribers

1,053 customers



Non-Subscribers

2,847 customers



SEGMENTATION

Customer Loyalty Breakdown

Loyal Customers

3,116 customers

80% of customer base with 5+ purchases

Returning Shoppers

701 customers

18% making 2-4 purchases

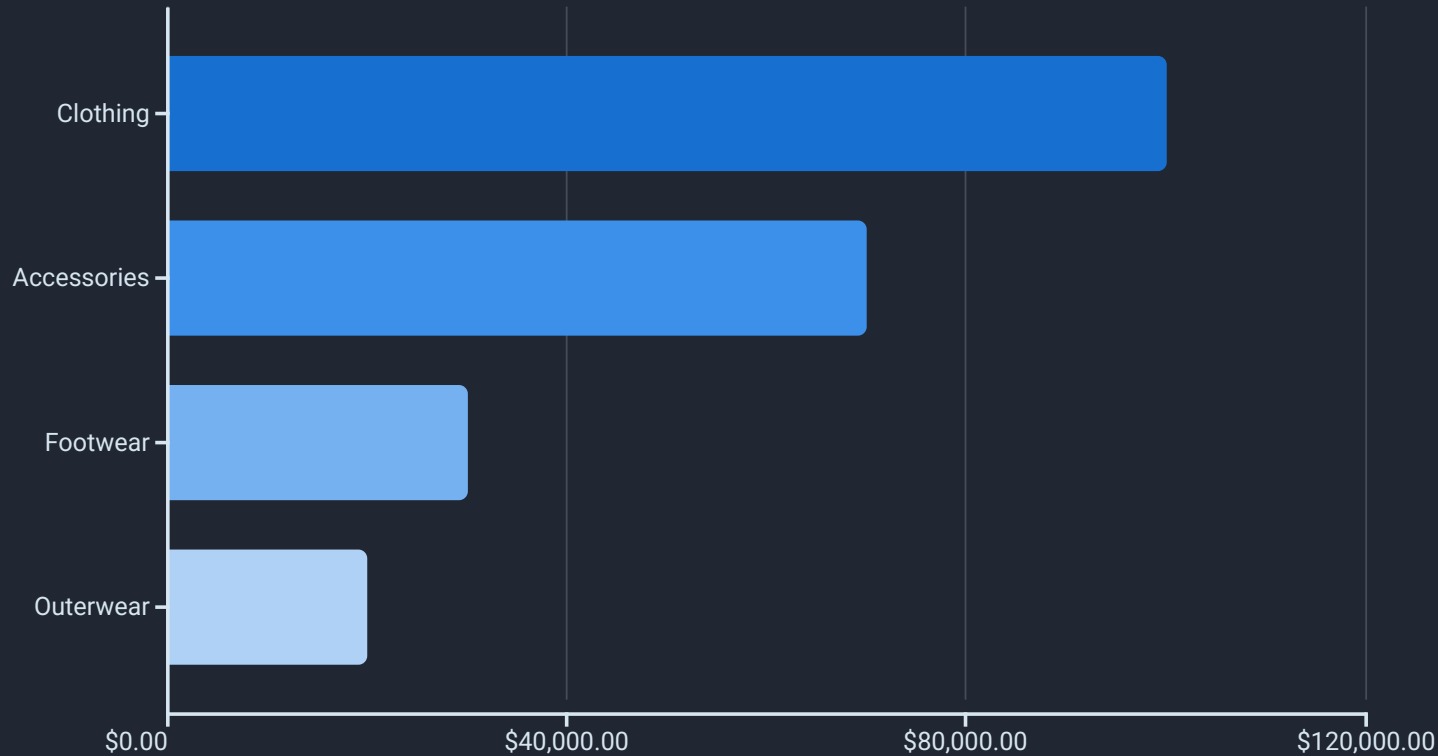
New Buyers

83 customers

2% with single purchase



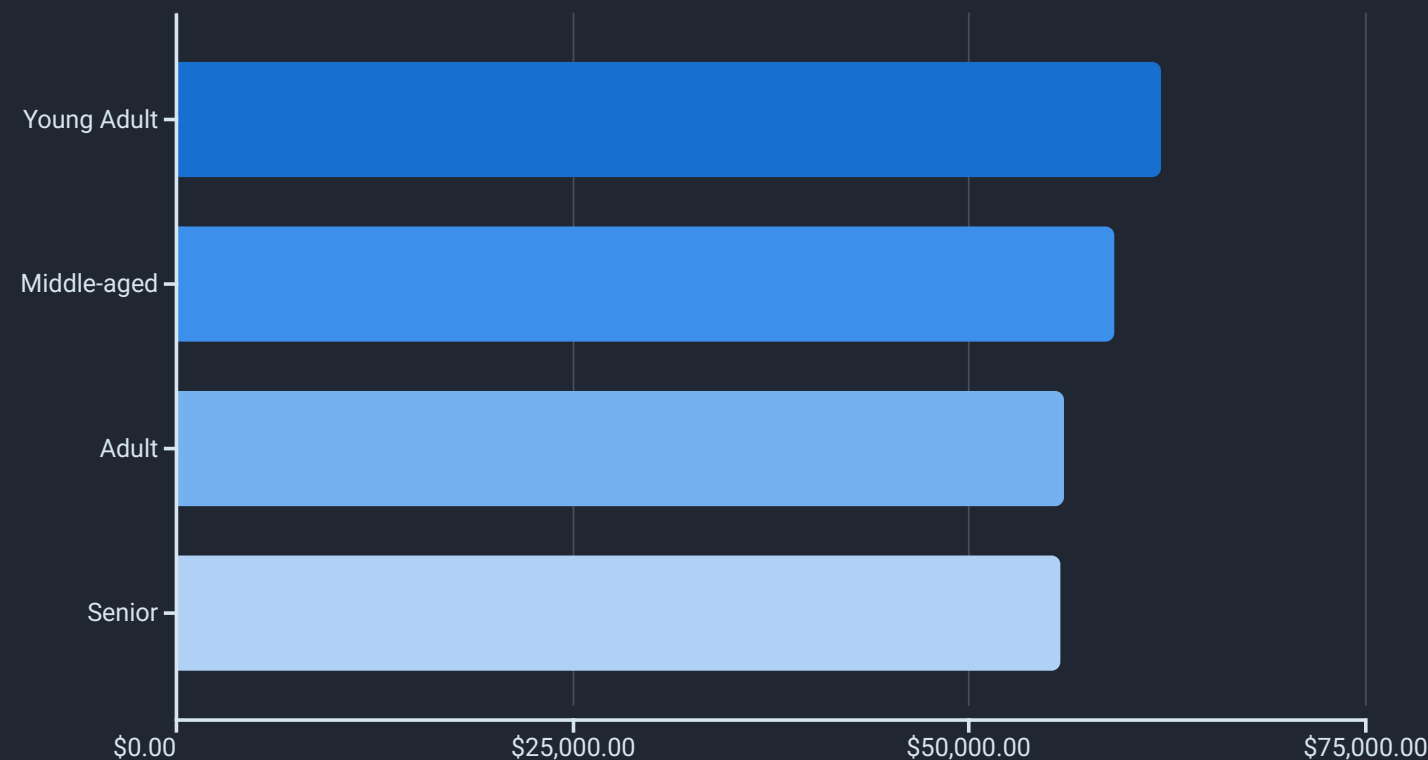
Revenue & Sales by Category



Top Products by Category

- **Accessories:** Jewelry, Sunglasses, Belt
- **Clothing:** Blouse, Pants, Shirt
- **Footwear:** Sandals, Shoes, Sneakers
- **Outerwear:** Jacket, Coat

Age Group Performance



Young Adults Lead Revenue

Highest-spending demographic with \$62,143 total revenue. Focus marketing efforts here for maximum ROI.

Strategic Action Plan



Boost Subscriptions

Promote exclusive benefits to convert non-subscribers



Loyalty Programs

Reward repeat buyers to strengthen retention



Targeted Marketing

Focus on young adults and express shipping users



Product Positioning

Highlight top-rated items in campaigns