



Customer Shopping Behavior Analysis

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



DATASET OVERVIEW

The Foundation

3.9K

Total Purchases

Transactions analyzed across
all categories

18

Data Points

Comprehensive customer and
purchase features

\$59.76

Avg Purchase

Mean transaction value across
all customers

3.75

Avg Rating

Customer satisfaction score

Data Preparation Journey

01

Data Loading & Exploration

Imported dataset, checked structure and summary statistics

02

Missing Data Handling

Imputed 37 missing review ratings using category medians

03

Feature Engineering

Created age groups and purchase frequency metrics

04

Data Consistency

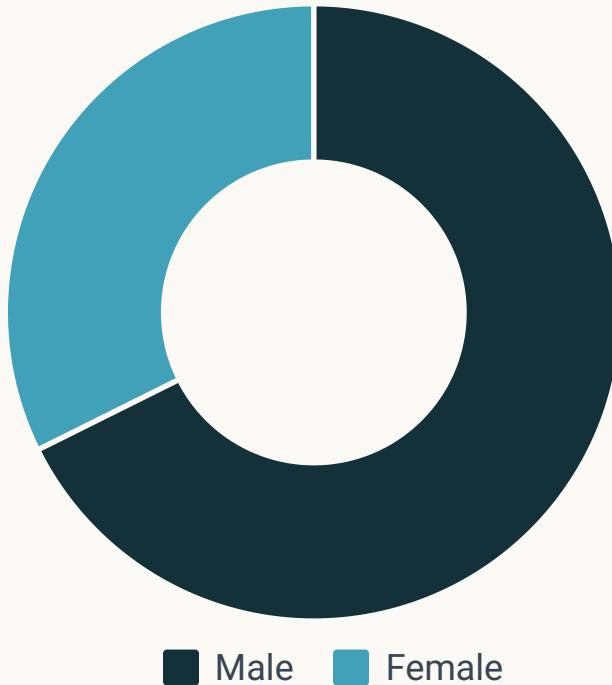
Standardized columns, removed redundant promo code field

05

Database Integration

Connected to PostgreSQL for advanced SQL analysis

Revenue by Gender

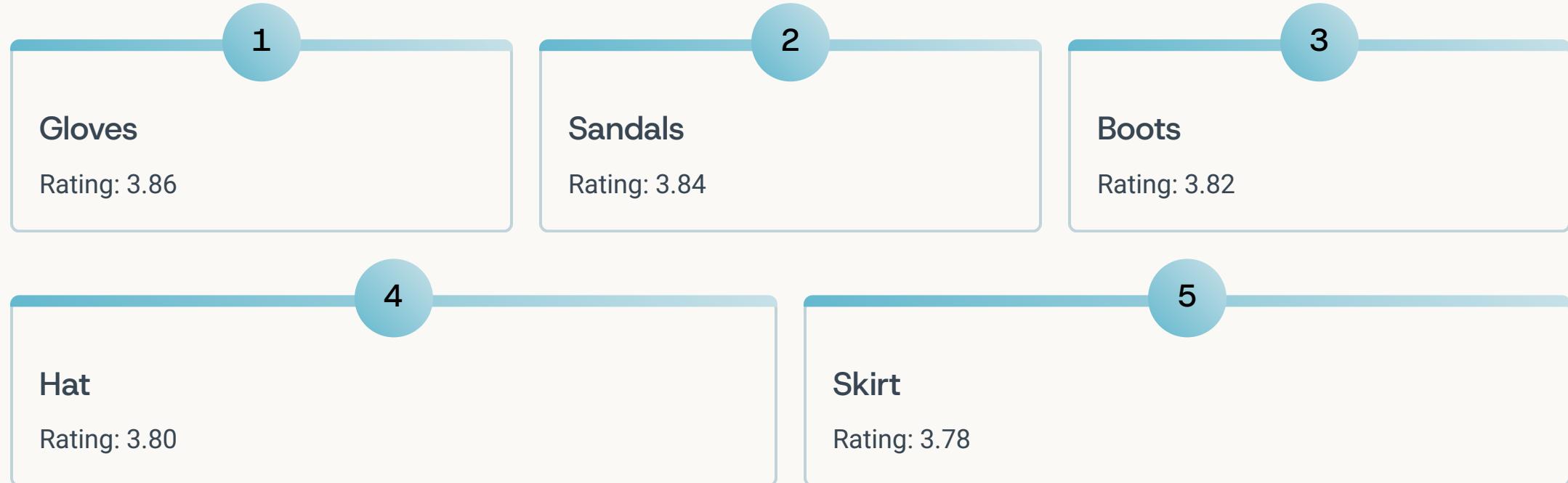


Male customers drive revenue

Male shoppers generate **68% of total revenue**, significantly outpacing female customers.

This insight suggests targeted marketing opportunities for both segments.

Top-Rated Products

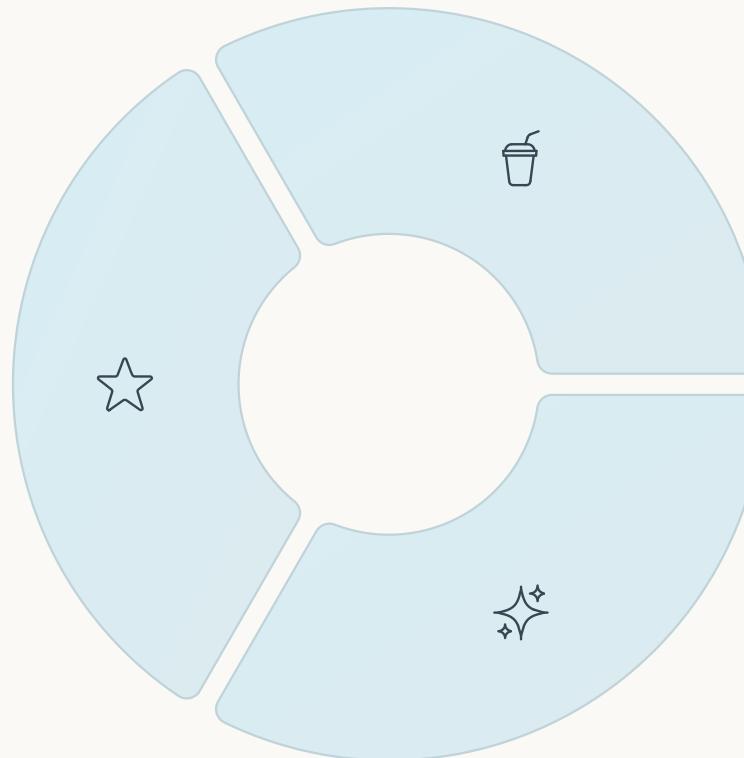


These products consistently deliver customer satisfaction and should be featured prominently in marketing campaigns.

CUSTOMER SEGMENTS

Understanding Our Customer Base

Loyal
3,116 customers
Repeat purchasers driving consistent revenue



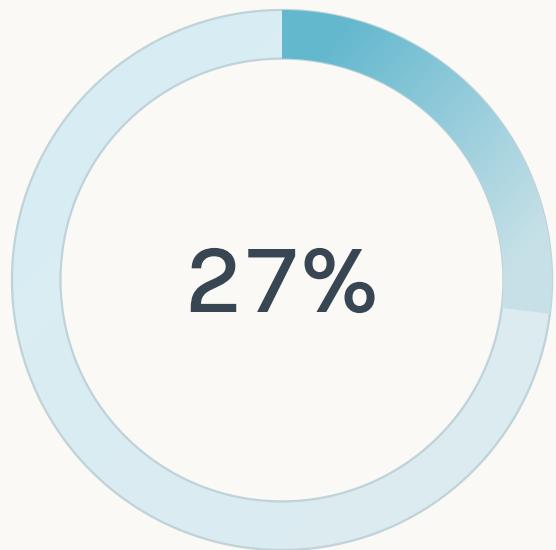
Returning
701 customers

Engaged shoppers with growth potential

New
83 customers

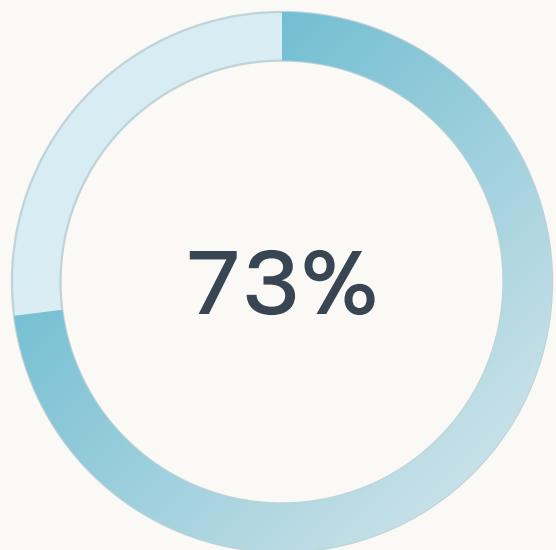
Fresh opportunities for conversion

Subscription Status Analysis



Subscribers

1,053 customers enrolled



Non-Subscribers

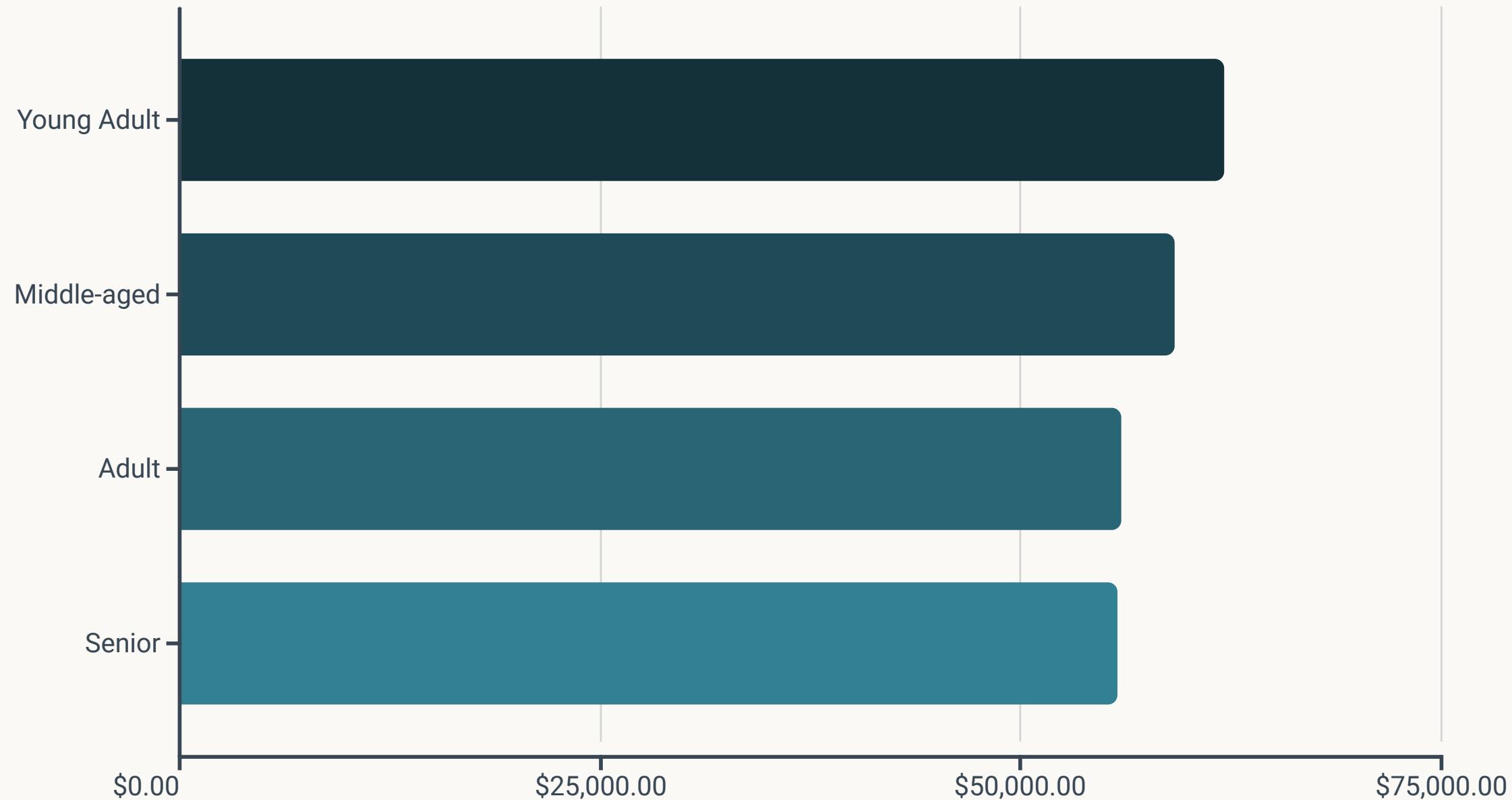
2,847 customers

Subscription Opportunity

Despite similar average spend (\$59.49 vs \$59.87), **massive untapped potential** exists in converting non-subscribers.

958 repeat buyers with 5+ purchases haven't subscribed yet.

Revenue by Age Group



Young adults lead revenue generation, but all age groups contribute relatively evenly—indicating broad market appeal.

Discount Strategy Insights

High-Value Discount Users

839 customers used discounts but spent above average (\$60+)

Discount-Dependent Products

Hat (50%), Sneakers (49.66%), Coat (49.07%) rely heavily on promotions

Shipping Impact

Express shipping customers spend **\$2 more** on average than standard





ACTION PLAN

Strategic Recommendations



Boost Subscriptions

Promote exclusive benefits to convert 2,847 non-subscribers



Loyalty Programs

Reward 958 repeat buyers to strengthen retention



Review Discount Policy

Balance sales boosts with margin control on high-discount products



Targeted Marketing

Focus on young adults, express shipping users, and top-rated products