



Customer Shopping Behavior Analysis

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

Dataset Overview

3,900

Total Purchases

Transactions
analyzed

18

Data Points

Features per
transaction

50

Locations

Geographic coverage

25

Products

Unique items
tracked

Comprehensive dataset spanning demographics, purchase details, and shopping behavior across multiple dimensions





Data Preparation Journey

01

Data Loading & Exploration

Imported dataset, analyzed structure and summary statistics

02

Missing Data Handling

Imputed 37 missing review ratings using category medians

03

Feature Engineering

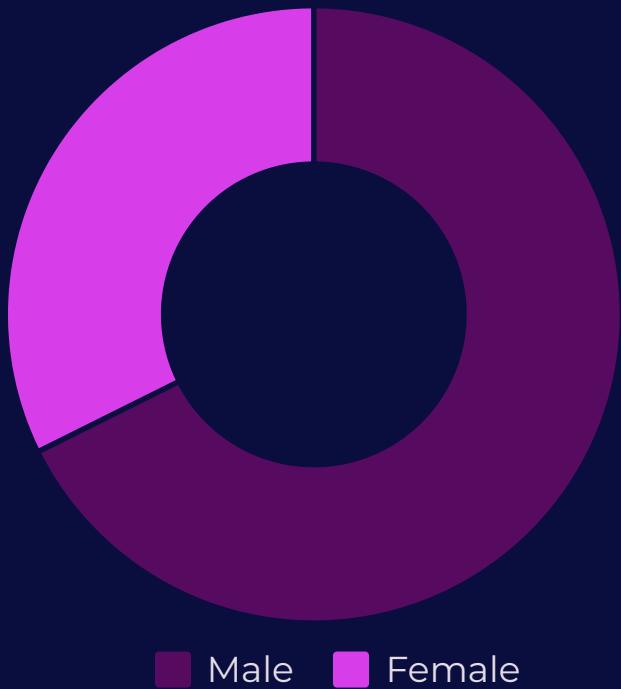
Created age groups and purchase frequency metrics

04

Database Integration

Connected to PostgreSQL for advanced SQL analysis

Revenue by Gender

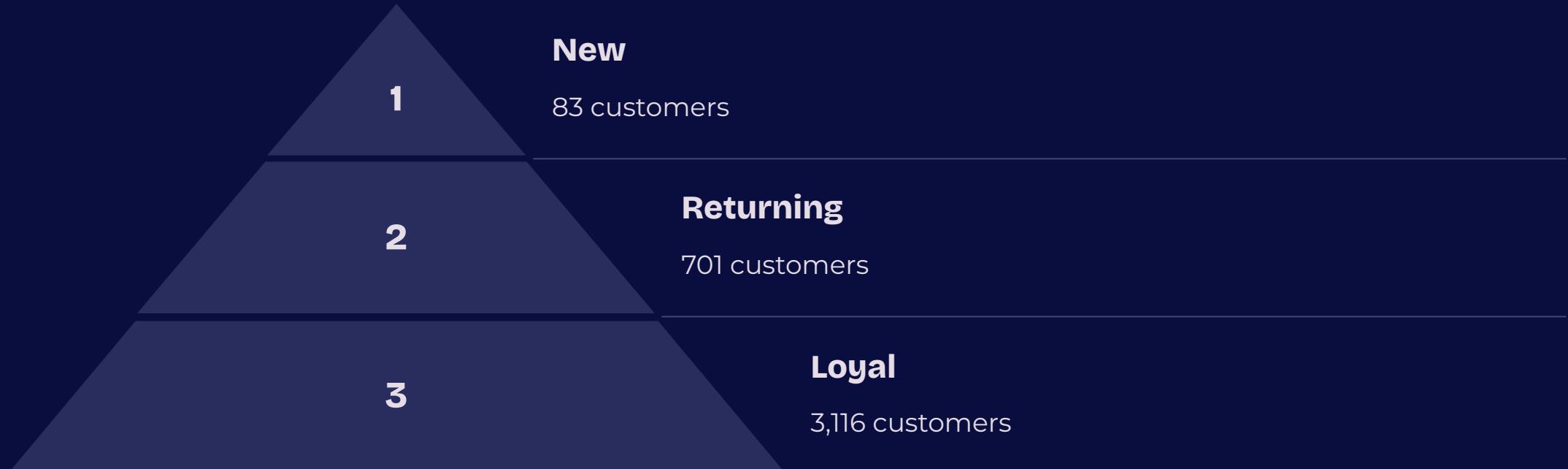


Key Insight

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

Strategic opportunity for targeted marketing campaigns

Customer Segmentation



80% of customers are loyal – retention strategies are working, but growth opportunities exist in converting new buyers

Top Performing Products

Gloves

Rating: **3.86**

Sandals

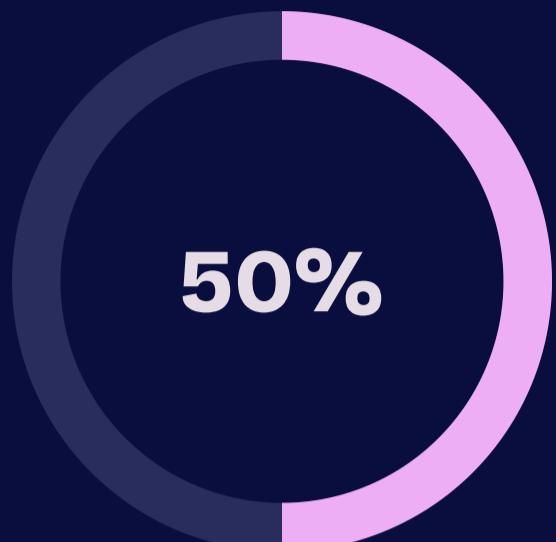
Rating: **3.84**

Boots

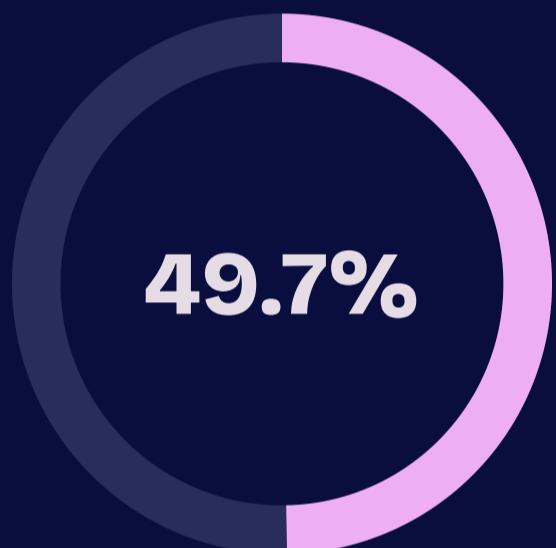
Rating: **3.82**

Highest-rated products show consistent quality across accessories and footwear categories

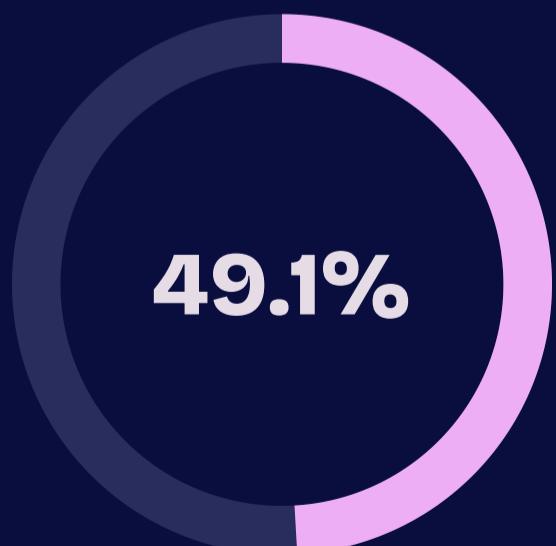
Discount Impact Analysis



Highest discount rate



Second highest

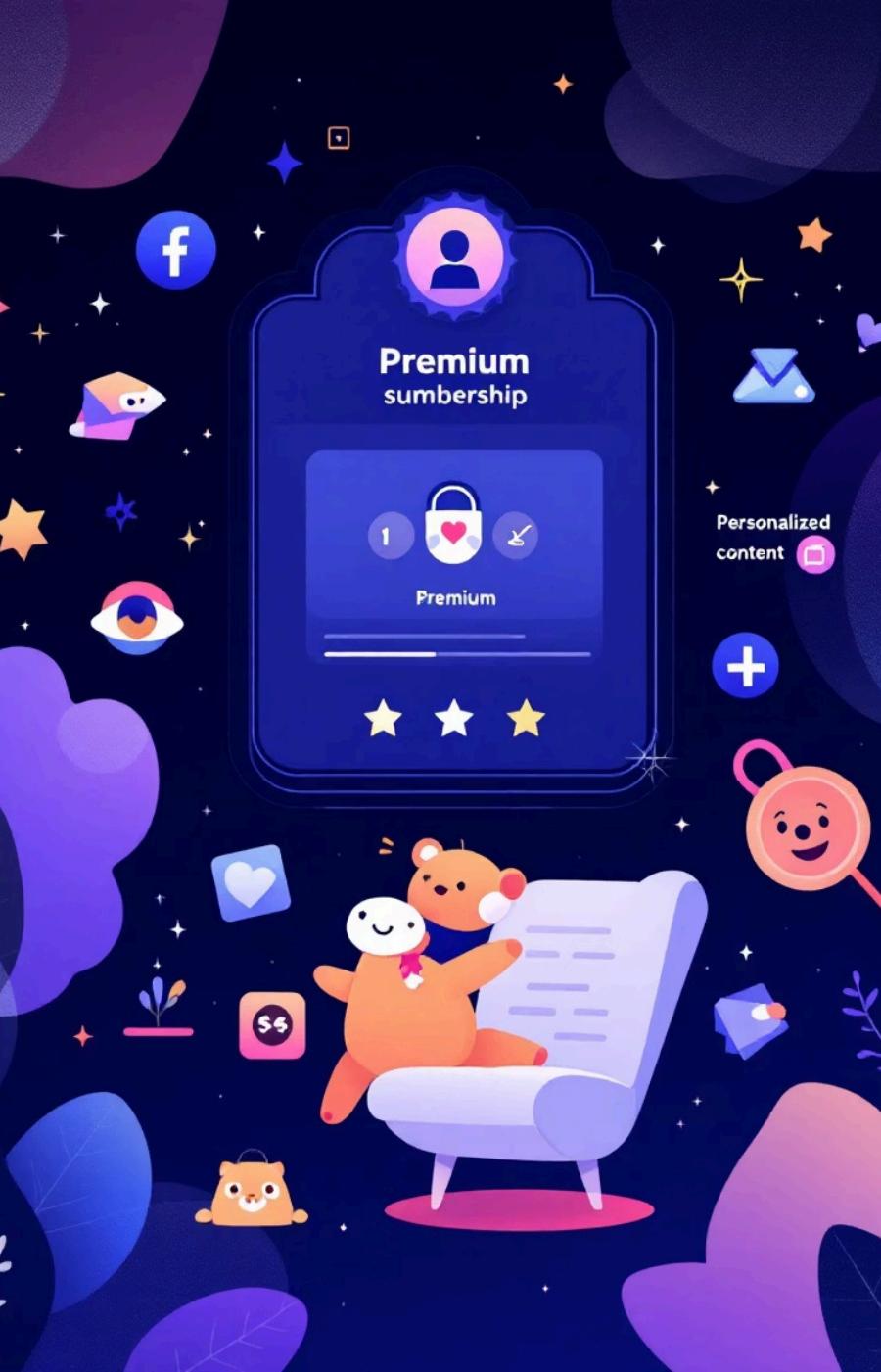


Third highest

Smart Spenders

839 customers used discounts but still spent above average

Discount strategy drives volume without sacrificing quality buyers



Subscription vs Non-Subscription

Subscribers

1,053 customers

Avg spend: **\$59.49**

Total revenue: **\$62,645**

Non-Subscribers

2,847 customers

Avg spend: **\$59.87**

Total revenue: **\$170,436**

Similar spending patterns, but 73% of customers are non-subscribers – major growth opportunity

Revenue by Age Group



Young adults lead revenue generation, but all segments show balanced contribution

Strategic Recommendations

1

Boost Subscriptions

Promote exclusive benefits to convert 73% non-subscriber base

2

Loyalty Programs

Reward repeat buyers to strengthen the 80% loyal customer segment

3

Optimize Discounts

Balance promotional strategy with margin control across high-discount products

4

Product Positioning

Highlight top-rated items like gloves and sandals in marketing campaigns

5

Targeted Marketing

Focus on high-revenue demographics and express shipping preferences