

# Customer Shopping Behavior Analysis

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



# The Foundation

**3,900**

## Total Purchases

Transactions analyzed

**18**

## Data Points

Features per customer

**50**

## Locations

Geographic coverage

**25**

## Products

Items tracked

## Customer Demographics

- Age, Gender, Location
- Subscription Status

## Shopping Behavior

- Purchase patterns & frequency
- Review ratings & preferences

# 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

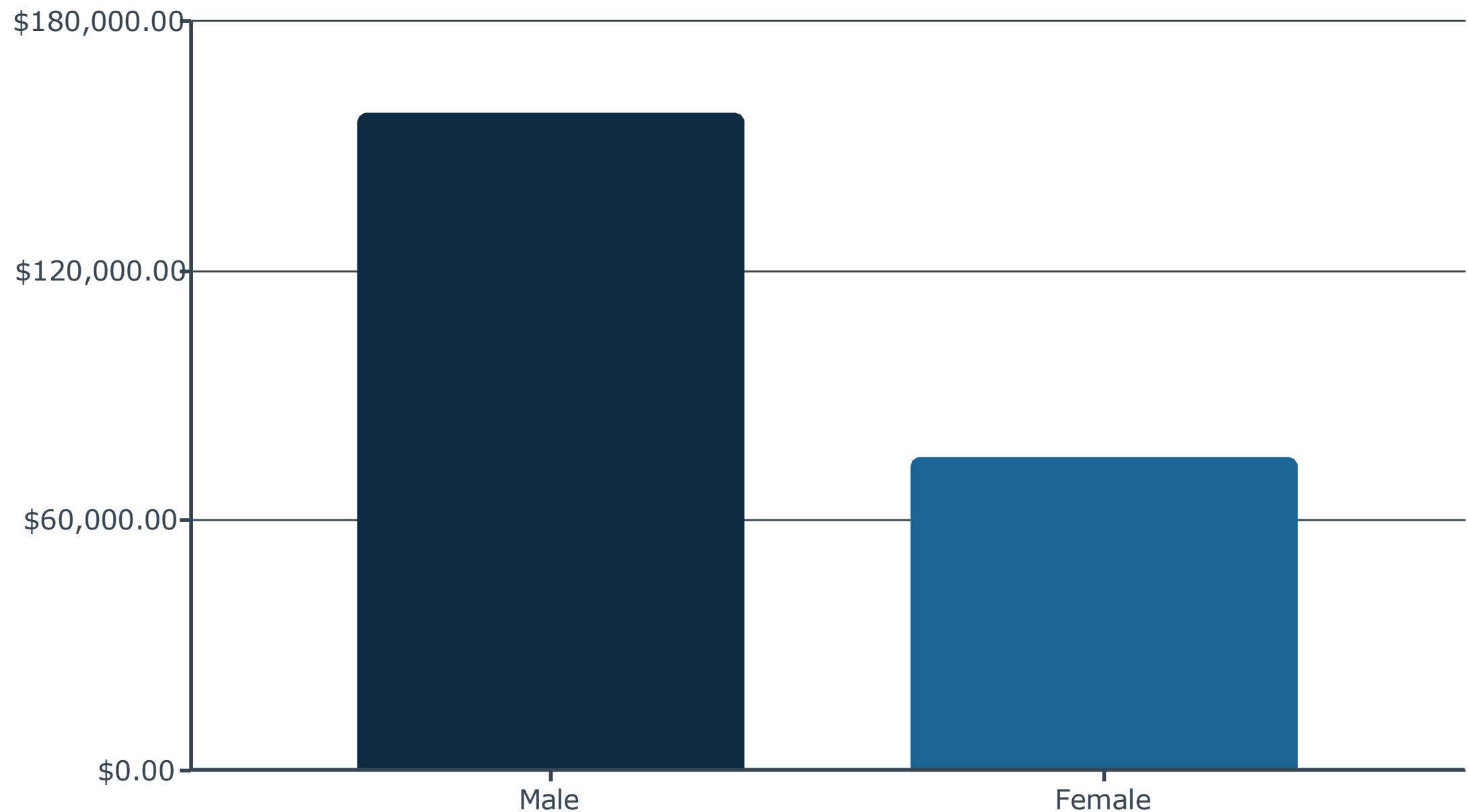
04

## Database Integration

Connected to PostgreSQL for advanced SQL analysis



# Revenue by Gender



Male customers generate 2.1x more revenue than female customers

# Top Performing Products

## Highest Rated Items

- **Gloves**

3.86 average rating

- **Sandals**

3.84 average rating

- **Boots**

3.82 average rating

- **Hat**

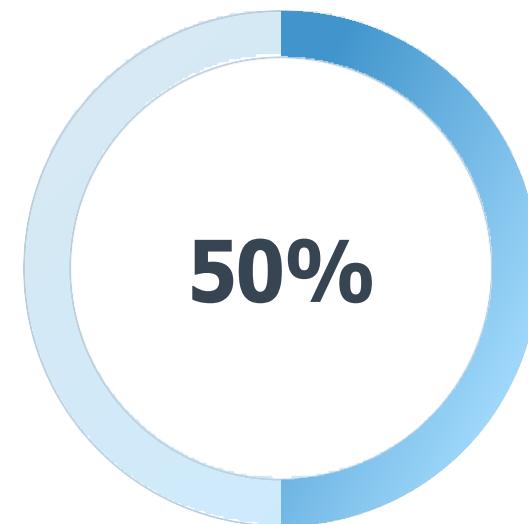
3.80 average rating

- **Skirt**

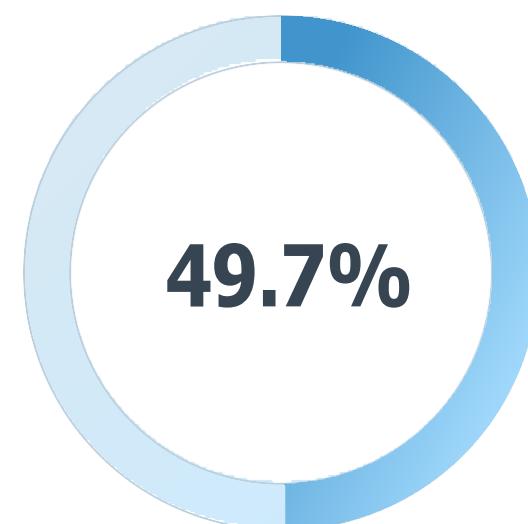
3.78 average rating

## Discount Leaders

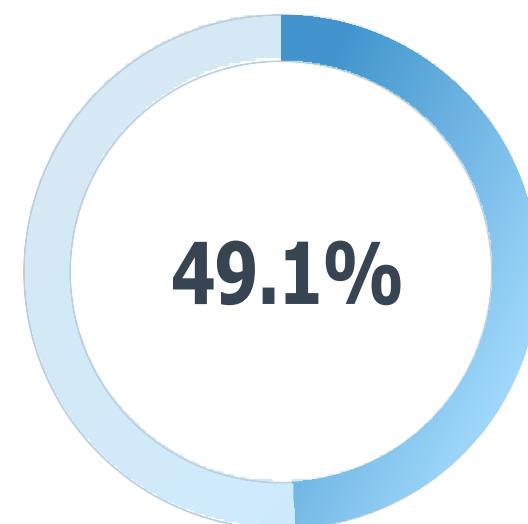
Products with highest discount rates:



**Hat**

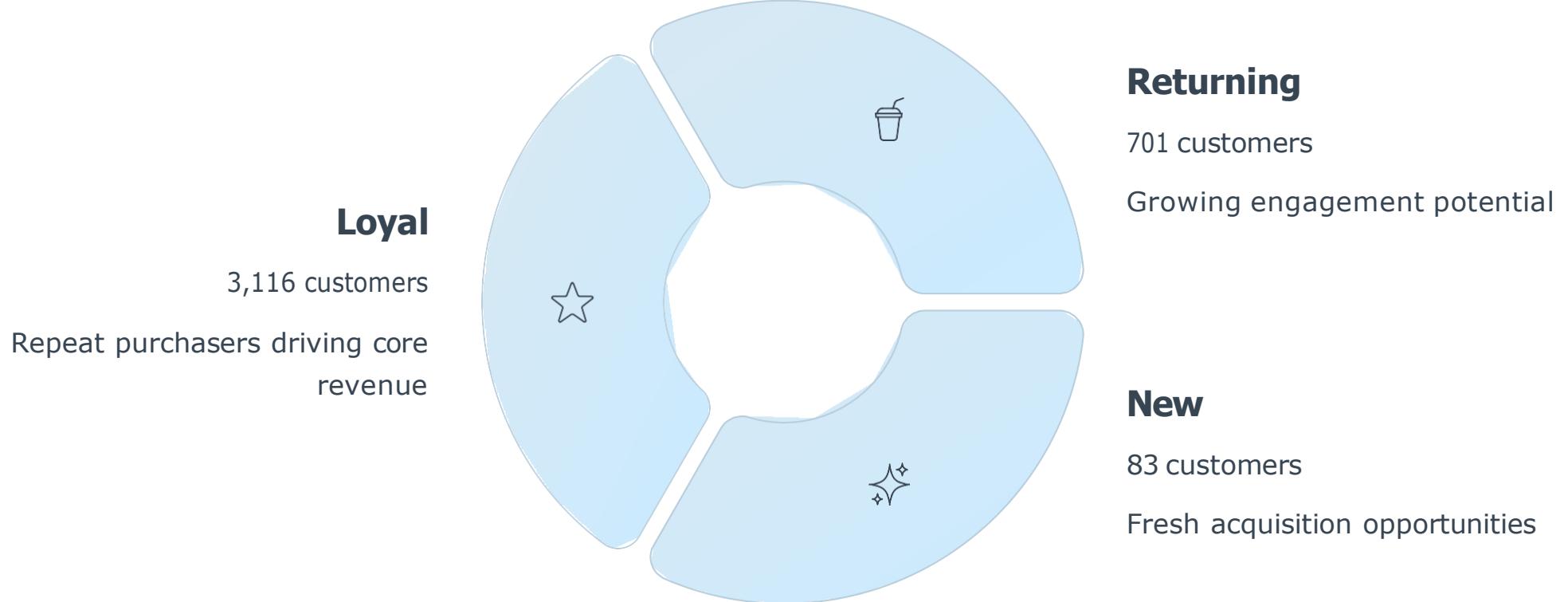


**Sneakers**



**Coat**

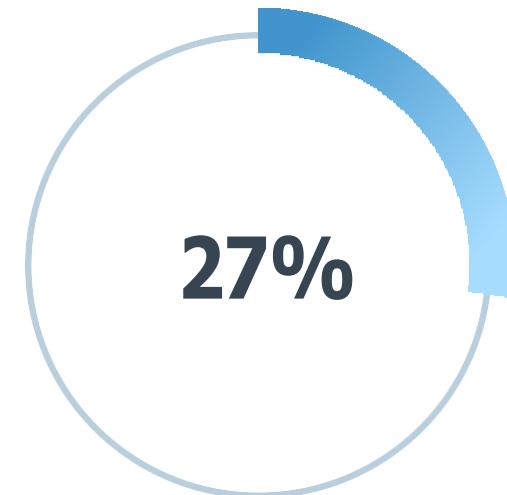
# Customer Segmentation



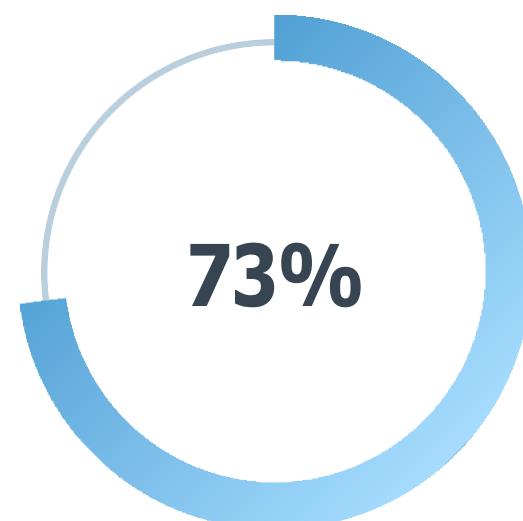
## Subscription Insights

Repeat buyers (>5 purchases):

- 2,518 without subscription
- 958 with subscription

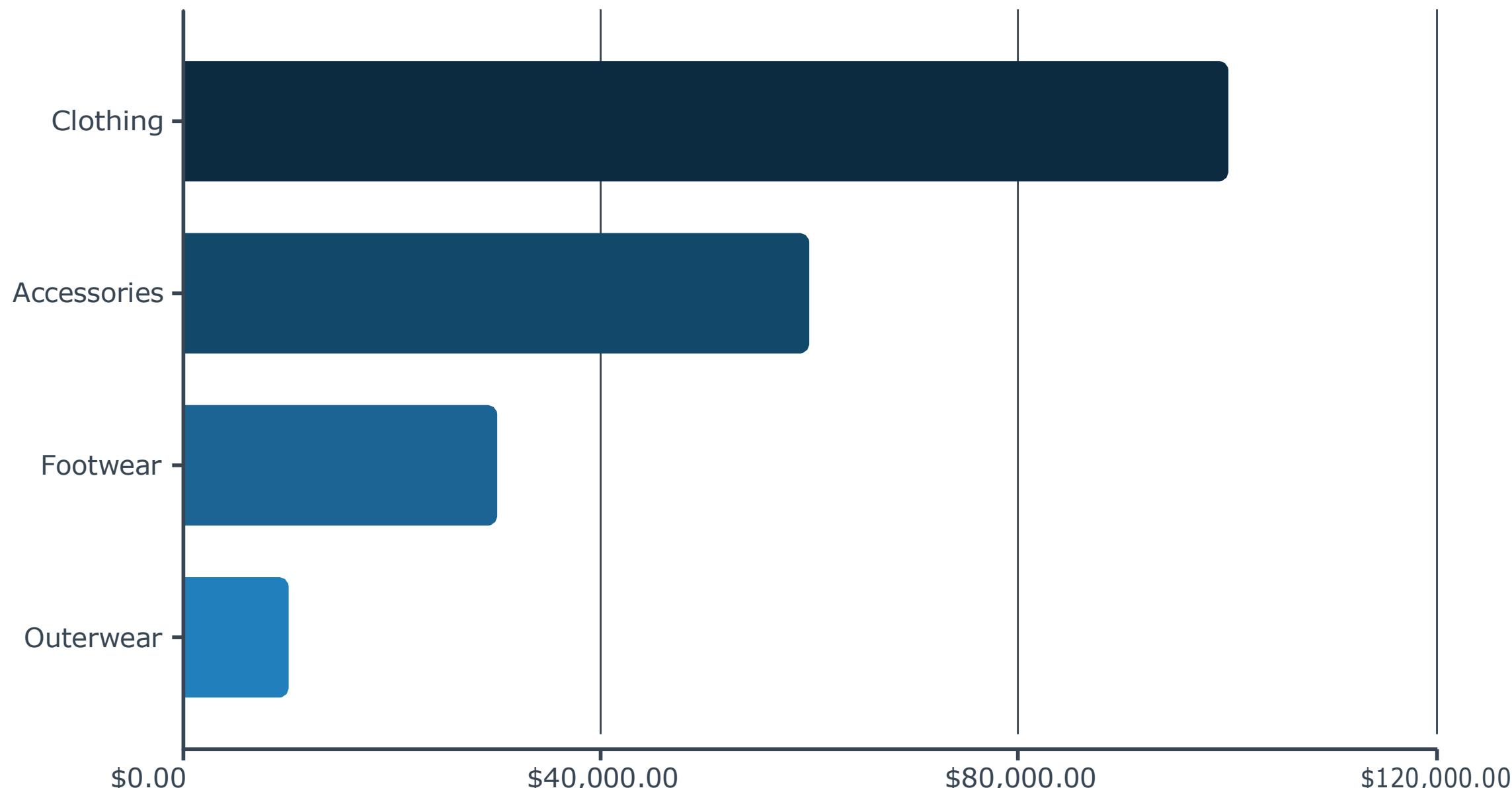


**Subscribed**



**Non-subscribed**

# Performance by Category & Age



## Young Adult

\$62,143 revenue

## Adult

\$55,978 revenue

## Middle-aged

\$59,197 revenue



## Senior

\$55,763 revenue

# Shipping & Spending Patterns

## Average Purchase by Shipping Type

### Express

\$60.48 average

### Standard

\$58.46 average

## Subscriber Comparison

Status	Avg Spend	Total Revenue
Subscribers	\$59.49	\$62,645
Non-subscribers	\$59.87	\$170,436

- ☐ High-spending discount users: 839 customers spent above average despite using discounts

POWER BI DASHBOARD



# Interactive Visual Analytics

\$ **sU9.7e**

Average purchase amount

👤 **3.9K**

Total customers

⭐ **3.7U**

Average review rating

# Actionable Business Insights

1

## Boost Subscriptions

Promote exclusive benefits to convert 2,518 repeat buyers without subscriptions

2

## Customer Loyalty Programs

Reward repeat buyers to accelerate movement into "Loyal" segment

3

## Review Discount Policy

Balance sales boosts with margin control—839 high spenders use discounts

4

## Product Positioning

Highlight top-rated items (Gloves, Sandals, Boots) in marketing campaigns

5

## Targeted Marketing

Focus on Young Adults (\$62K revenue) and express-shipping users (\$60.48 avg)