



# Customer Shopping Behavior Analysis

Uncovering insights from 3,900 purchases to drive strategic decisions



DATASET OVERVIEW

# The Foundation

3,900

Total Purchases

18

Data Points

50

Locations

Transactions analyzed

Features per customer

Geographic spread

4

Categories

Product segments



# 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 Insights

## Gender Revenue Split

Male customers drive majority of revenue

- Male: \$157,890
- Female: \$75,191
- 68% vs 32% split

## Age Group Performance

Young Adults lead revenue generation

- Young Adult: \$62,143
- Middle-aged: \$59,197
- Adult: \$55,978
- Senior: \$55,763



KEY FINDING

# The Discount Paradox

**839 Customers**

Used discounts but spent above average (\$59.76)

**Top Products**

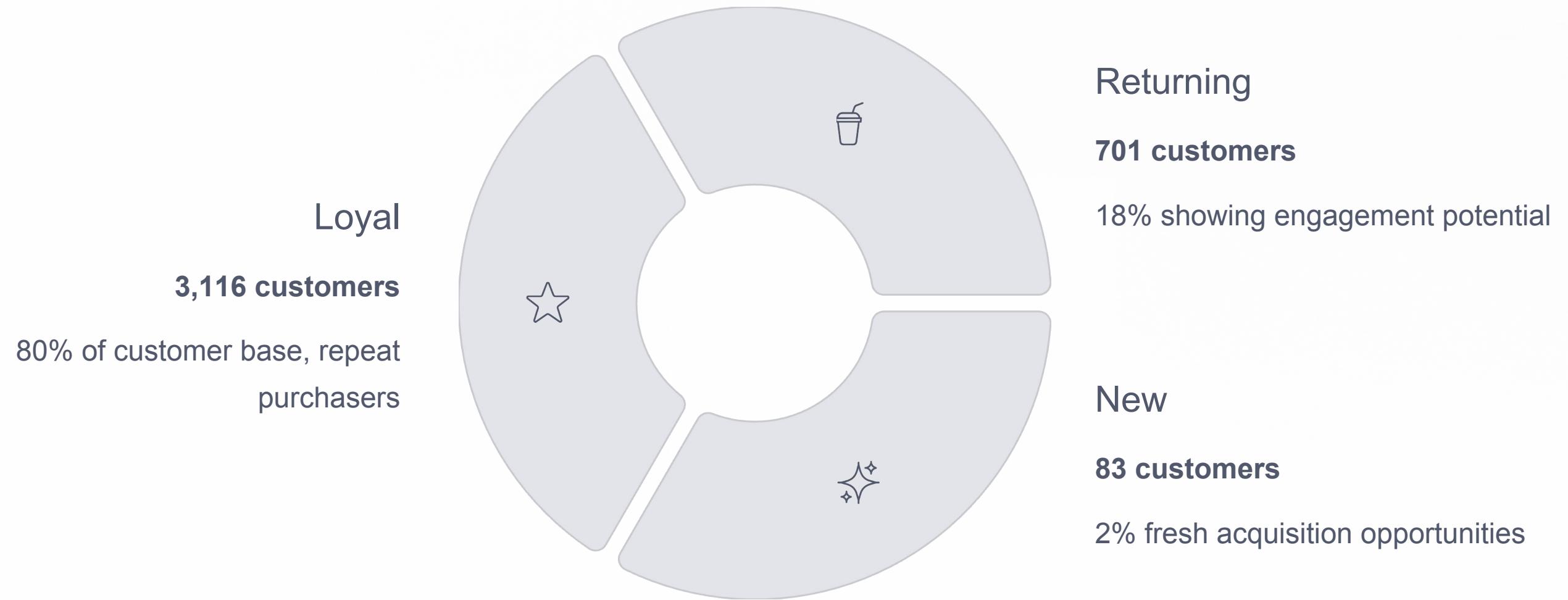
Hat (50%), Sneakers (49.7%), Coat (49.1%) most discounted

**Strategic Insight**

Discounts attract high-value customers, not just bargain hunters



# Customer Segmentation





# Product Performance Leaders

1

Gloves

Highest rated: 3.86 average review

2

Sandals

Strong performer: 3.84 rating

3

Boots

Customer favorite: 3.82 rating

## Accessories

Jewelry leads with 171  
orders

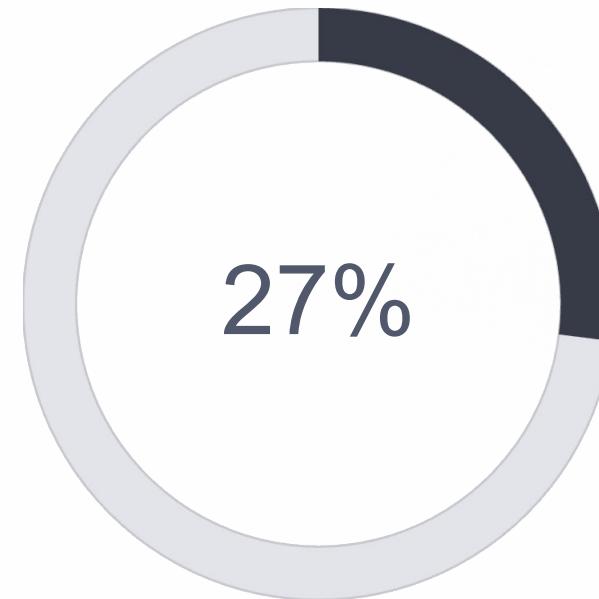
## Clothing

Blouse & Pants tied at 171  
orders

## Footwear

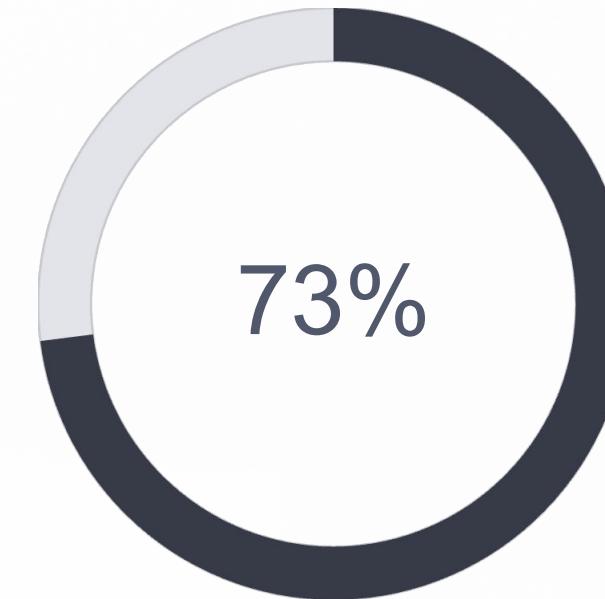
Sandals dominate with 160  
orders

# Subscription Status Reality Check



Subscribed

1,053 customers with subscriptions



Non-Subscribed

2,847 customers without subscriptions

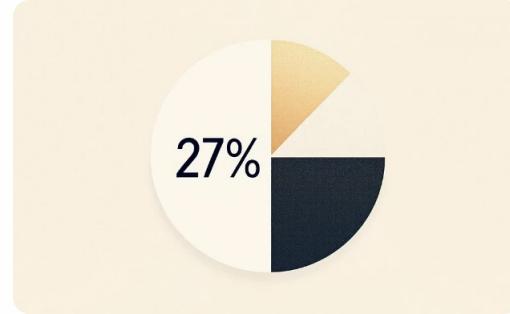
## Spending Patterns

- Subscribers: \$59.49 average
- Non-subscribers: \$59.87 average
- Minimal difference in spend

## Repeat Buyer Insight

- Of customers with 5+ purchases:
- 958 are subscribers
  - 2,518 are not subscribed
  - Huge untapped potential

# Interactive Dashboard Highlights



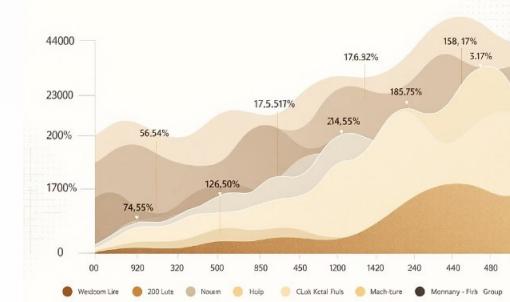
## Subscription Split

Visual breakdown of subscriber vs non-subscriber distribution



## Category Revenue

Clothing leads across all product segments



## Age Demographics

Young Adults drive highest engagement and revenue

## ACTION PLAN

# Strategic Recommendations



## Boost Subscriptions

Promote exclusive benefits to convert 2,518 repeat buyers



## Loyalty Programs

Reward repeat buyers to strengthen the 80% loyal segment



## Optimize Discounts

Balance sales boosts with margin control on high-discount items



## Targeted Marketing

Focus on Young Adults and express-shipping users for maximum ROI

