



Customer Shopping Behavior Analysis

Uncovering insights from 3,900 purchases to drive strategic decisions



DATASET OVERVIEW

The Foundation

3,900

Total Purchases

Transactions analyzed

18

Data Points

Features per customer

50

Locations

Geographic spread

4

Categories

Product segments

Data Preparation Journey

01

Data Loading & Exploration

Imported dataset, checked structure and summary statistics

03

Feature Engineering

Created age groups and purchase frequency metrics

02

Missing Data Handling

Imputed 37 missing Review Ratings using category medians

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

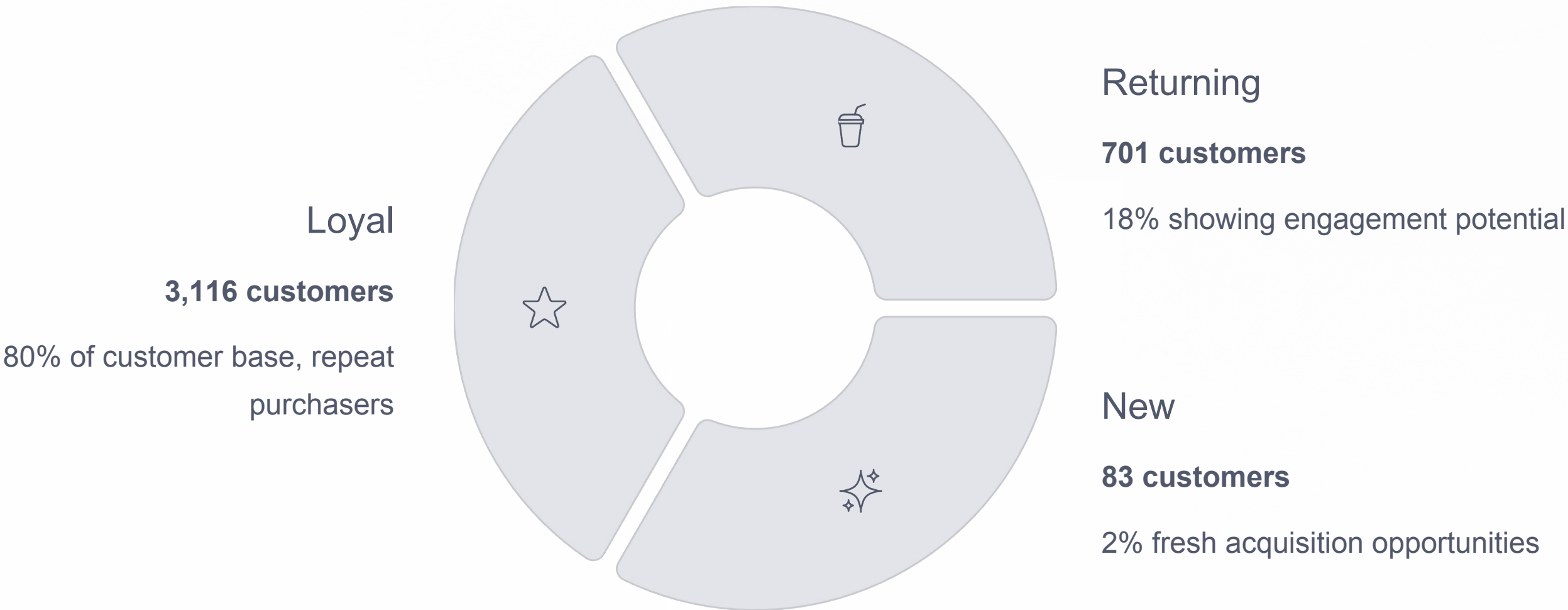
Hat (50%), Sneakers (49.7%), Coat (49.1%) most discounted

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

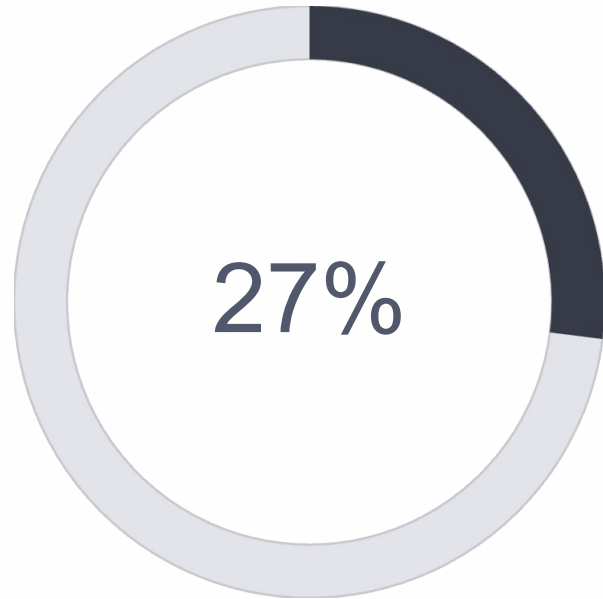
Strong performer: 3.84 rating
- 3

Boots

Customer favorite: 3.82 rating

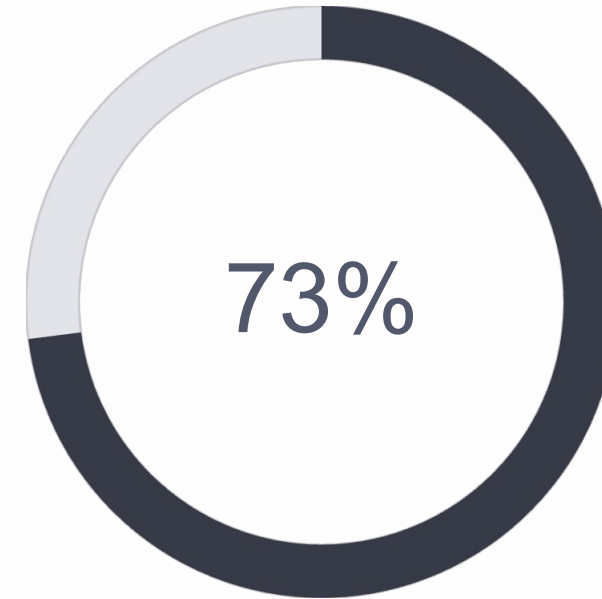
Accessories	Clothing	Footwear
Jewelry leads with 171 orders	Blouse & Pants tied at 171 orders	Sandals dominate with 160 orders

Subscription Status Reality Check



Subscribed

1,053 customers with subscriptions



Non-Subscribed

2,847 customers without subscriptions

Spending Patterns

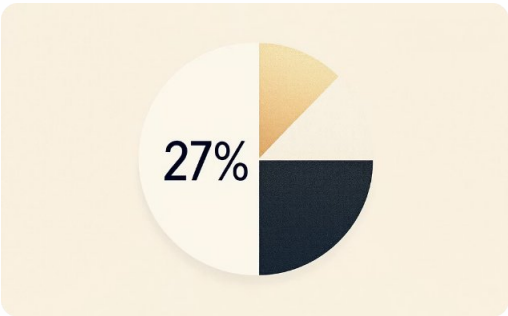
- Subscribers: \$59.49 average
- Non-subscribers: \$59.87 average
- Minimal difference in spend

Repeat Buyer Insight

Of customers with 5+ purchases:

- 958 are subscribers
- 2,518 are not subscribed
- Huge untapped potential

Interactive Dashboard Highlights



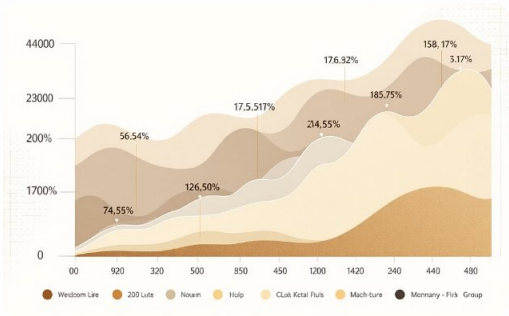
Subscription Split

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

