



# 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

**18**

Data Points

Features per customer

**\$59.76**

Avg Purchase

Per transaction

**3.75**

Avg Rating

Customer satisfaction

# Data Preparation Journey

01

## Data Loading & Exploration

Imported dataset, checked structure with pandas

02

## Missing Data Handling

Imputed 37 missing review ratings using category medians

03

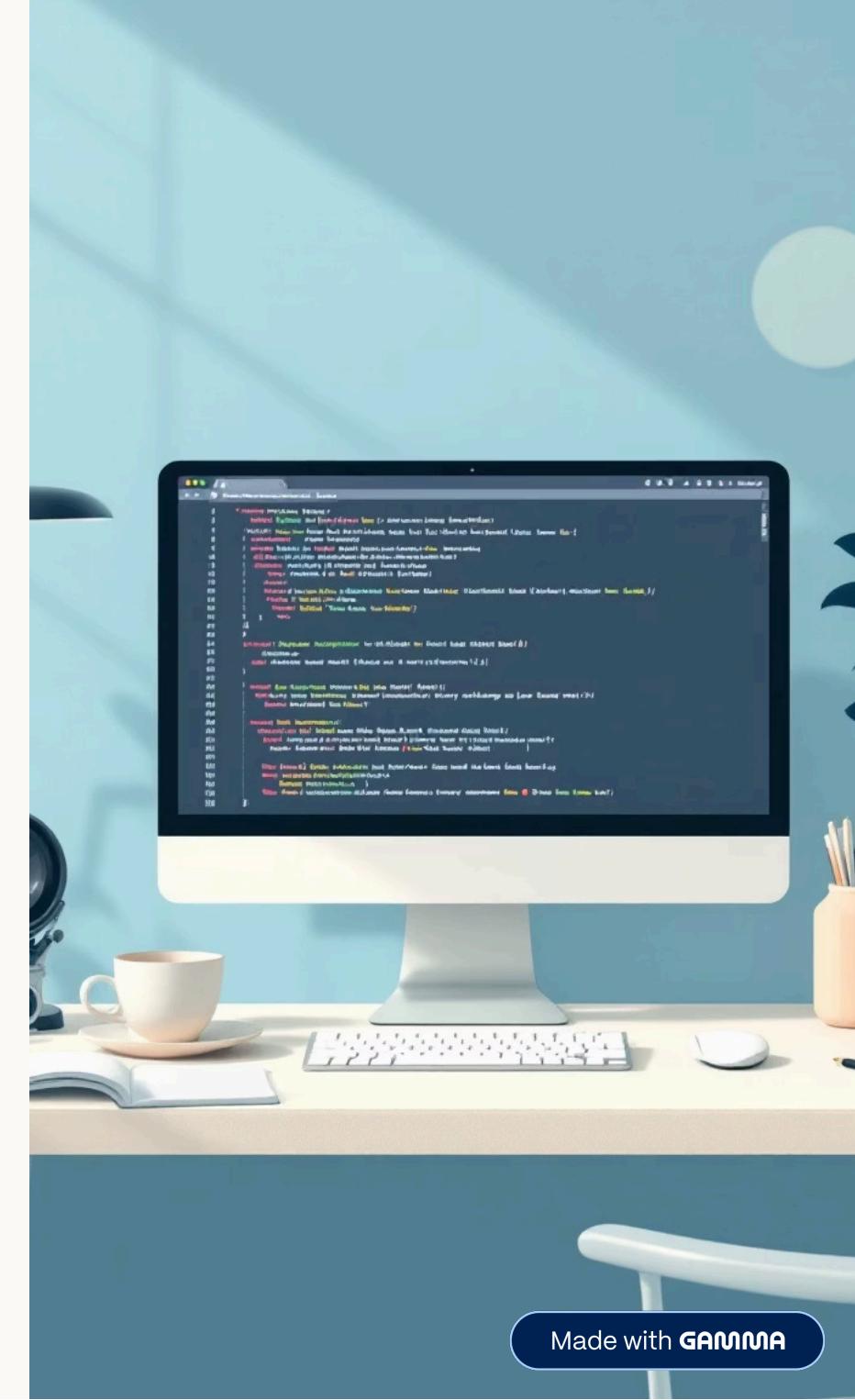
## Feature Engineering

Created age groups and purchase frequency metrics

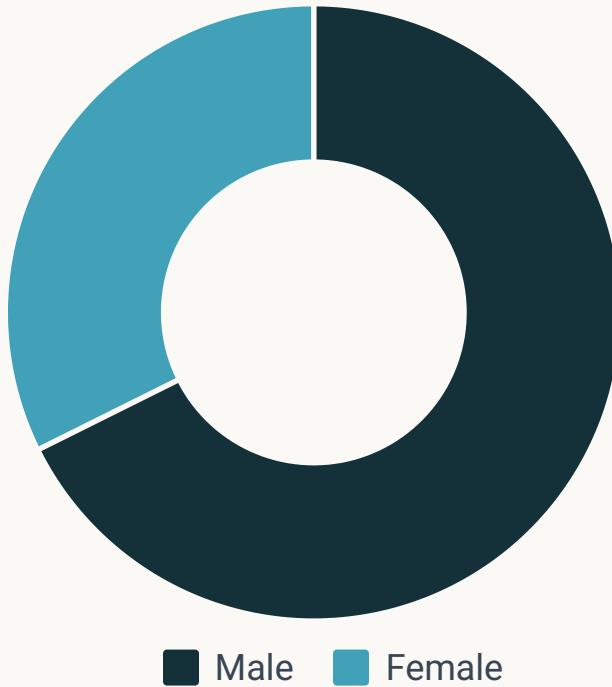
04

## Database Integration

Connected to PostgreSQL for SQL analysis



# Revenue by Gender



## Key Finding

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

This suggests opportunities for targeted marketing campaigns.



# High-Value Discount Users



## 839 Customers

Used discounts but spent above average



## Premium Spenders

Range: \$62-\$97 per purchase



## Strategic Insight

Discounts attract quality customers

These customers prove that strategic discounting can drive both volume and value.

# Top-Rated Products

1

**Gloves**

3.86 rating

2

**Sandals**

3.84 rating

3

**Boots**

3.82 rating

4

**Hat**

3.80 rating

5

**Skirt**

3.78 rating

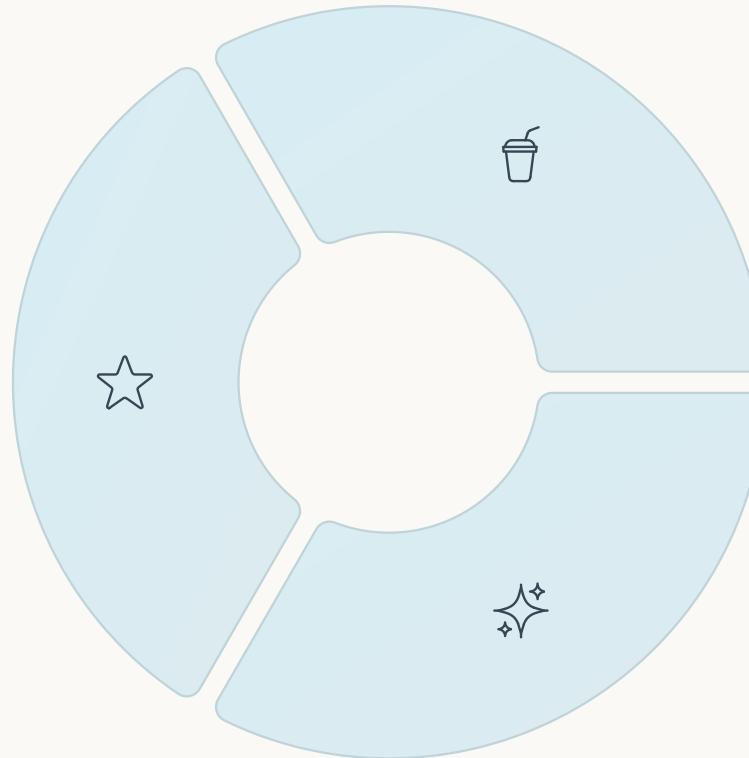
## CUSTOMER ★ REVIEW ★



Highlight these top performers in marketing campaigns to drive conversions.

# Customer Segmentation

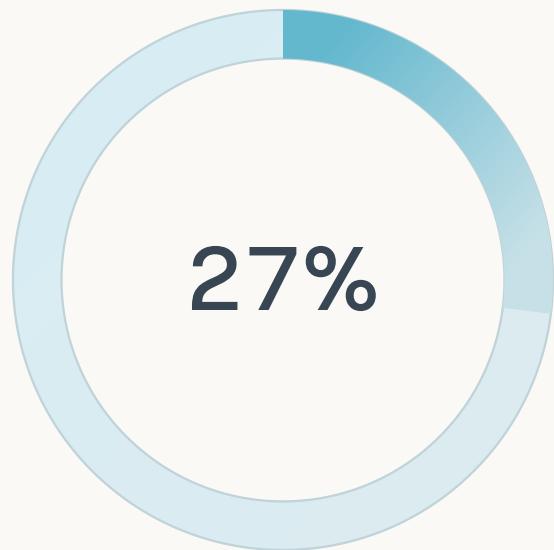
Loyal  
**3,116 customers (80%)**  
Repeat buyers driving core revenue



Returning  
**701 customers (18%)**  
Growing engagement potential

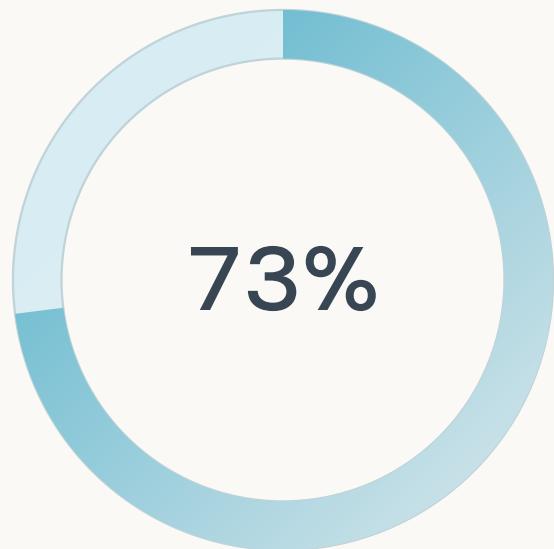
New  
**83 customers (2%)**  
Fresh acquisition opportunities

# The Subscription Gap



**Subscribers**

1,053 customers



**Non-Subscribers**

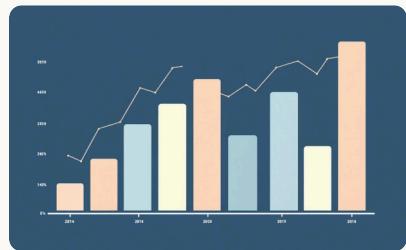
2,847 customers

## Revenue Comparison

- Subscribers: \$62,645 total (\$59.49 avg)
- Non-subscribers: \$170,436 total (\$59.87 avg)
- 958 repeat buyers (>5 purchases) are subscribers

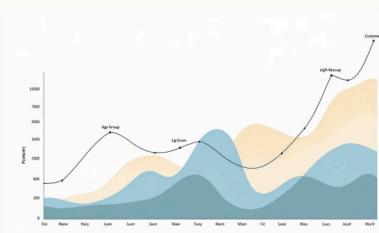
Massive untapped potential: 73% of customers aren't subscribed yet

# Interactive Analytics



## Revenue by Category

Clothing leads, followed by Accessories, Footwear, Outerwear



## Age Group Analysis

Young Adults generate highest revenue at \$62,143



## Shipping Insights

Express shipping users spend \$2 more on average

# Action Plan



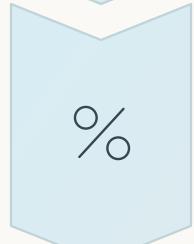
## Boost Subscriptions

Promote exclusive benefits to convert 73% non-subscribers



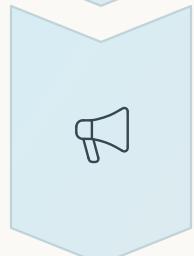
## Loyalty Programs

Reward repeat buyers to grow the 80% loyal segment



## Review Discount Policy

Balance sales boosts with margin control for 839 high-value discount users



## Targeted Marketing

Focus on Young Adults, top-rated products, and express shipping users

