Customer Shopping Behavior Analysis

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

Dataset Overview

3,900

Total Purchases

Comprehensive transaction data

18

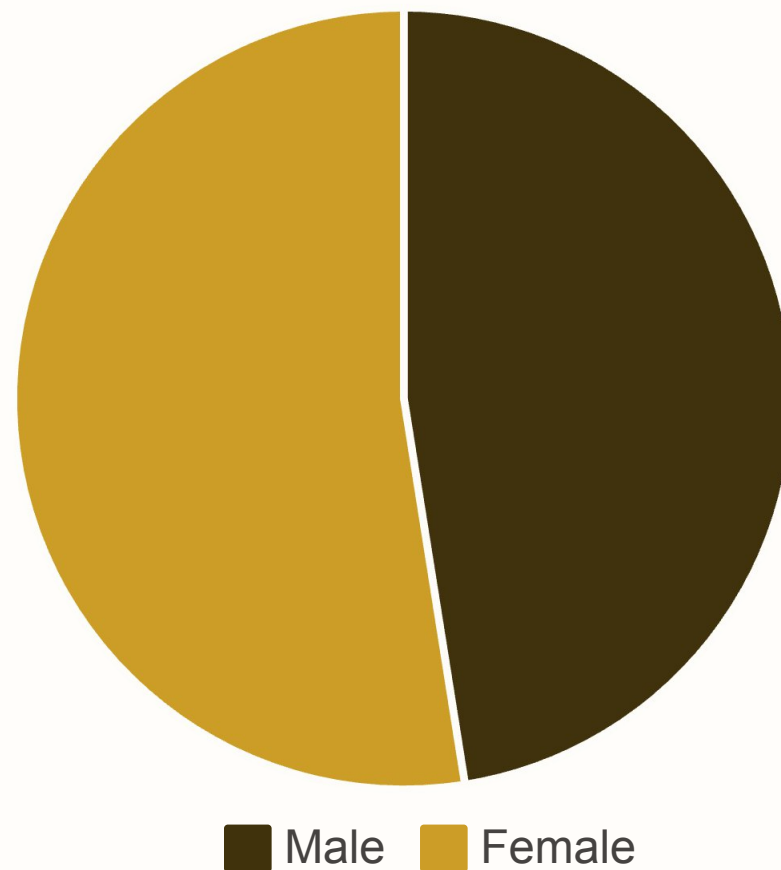Data Columns

Customer demographics & behavior

37

Missing Values

Only in Review Rating column

Data Preparation Process

01

Data Loading

Imported dataset using pandas

02

Initial Exploration

Structure check and summary statistics

03

Missing Data Handling

Imputed Review Rating with median values

04

Feature Engineering

Created age groups and purchase frequency

05

Database Integration

Connected to PostgreSQL for analysis

Revenue by Gender Analysis

■ Male ■ Female

Key Insight

Female customers generate slightly higher total revenue than male customers

🗌 Gender-based marketing strategies could optimize revenue streams

High-Value Discount Users

Customers using discounts while spending above average

Smart Shoppers

High spenders who maximize value with discounts

Strategic Opportunity

Target premium customers with exclusive offers

F 0.5 star

★★★★★★

For've Star

★★★★

5 5.Star

★★★★★

Clothing ceers

5 5.Star

Clothers reviews — product reviews product in nne ahams calors

Top-Rated Products

★★★★★ 5

Blouse

Highest customer satisfaction

★★★★★ 5

Dress

Consistently excellent reviews

★★★★☆ 4

Shirt

Strong customer approval

Shipping Preferences Impact

Express Shipping

$65
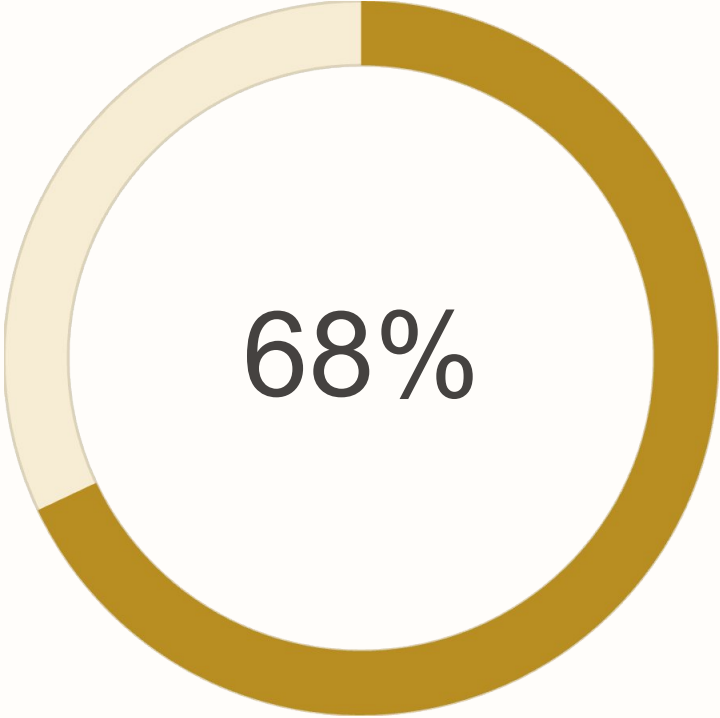
Average purchase amount

Standard Shipping

$58

Average purchase amount

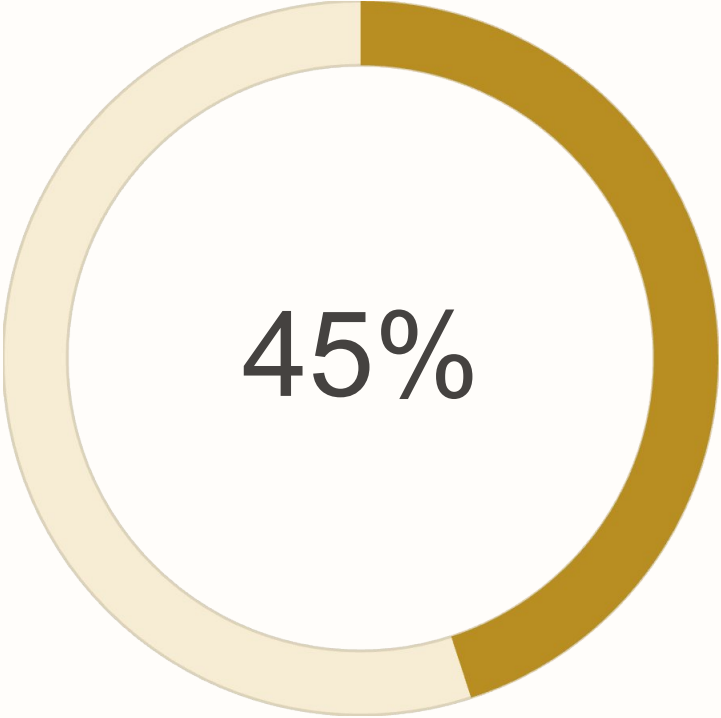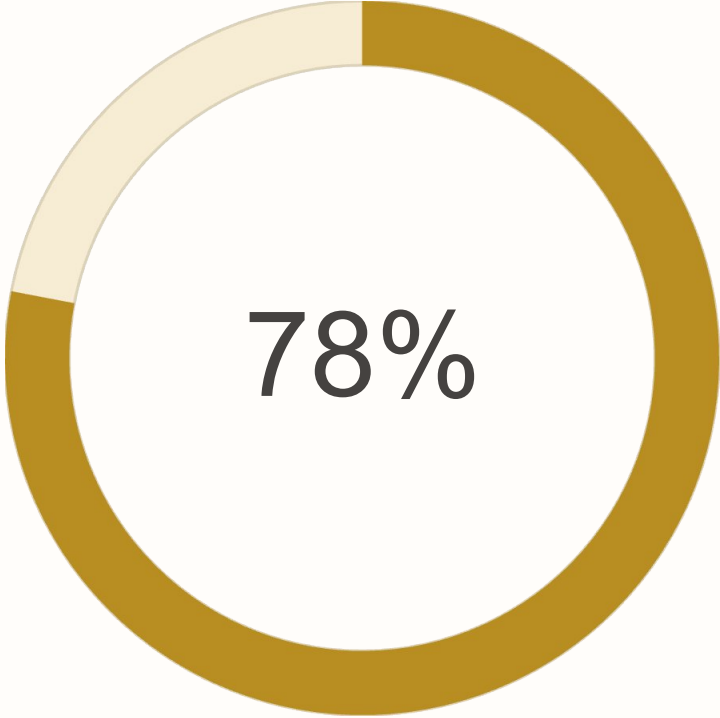Express shipping customers spend 12% more per transaction

Subscription Impact

68%

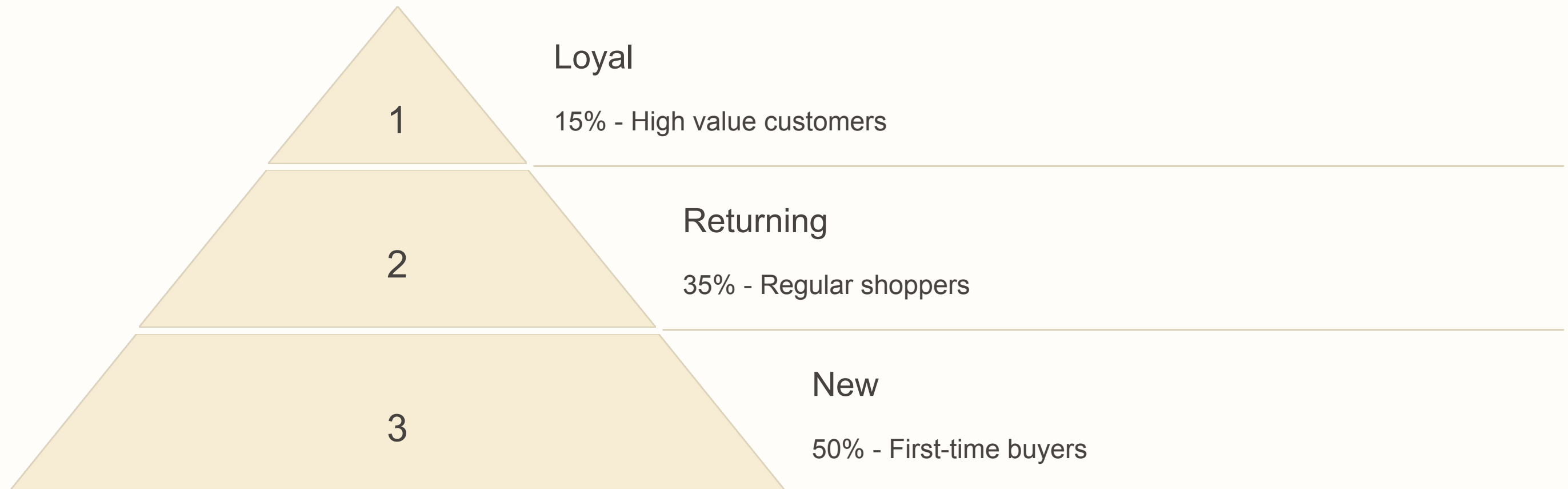**Higher Spend**

Subscribers vs non-subscribers

45%

Revenue Share

From subscription customers

78%

Loyalty Rate

Repeat purchase frequency

Customer Segmentation

1 — Loyal

15% - High value customers

2 — Returning

35% - Regular shoppers

3 — New

50% - First-time buyers

Focus on converting New to Returning, Returning to Loyal

Strategic Recommendations

Boost Subscriptions

Promote exclusive benefits for subscribers

Loyalty Programs

Reward repeat buyers to increase retention

Targeted Marketing

Focus on high-revenue segments and express users

Product Positioning

Highlight top-rated products in campaigns