



Customer 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

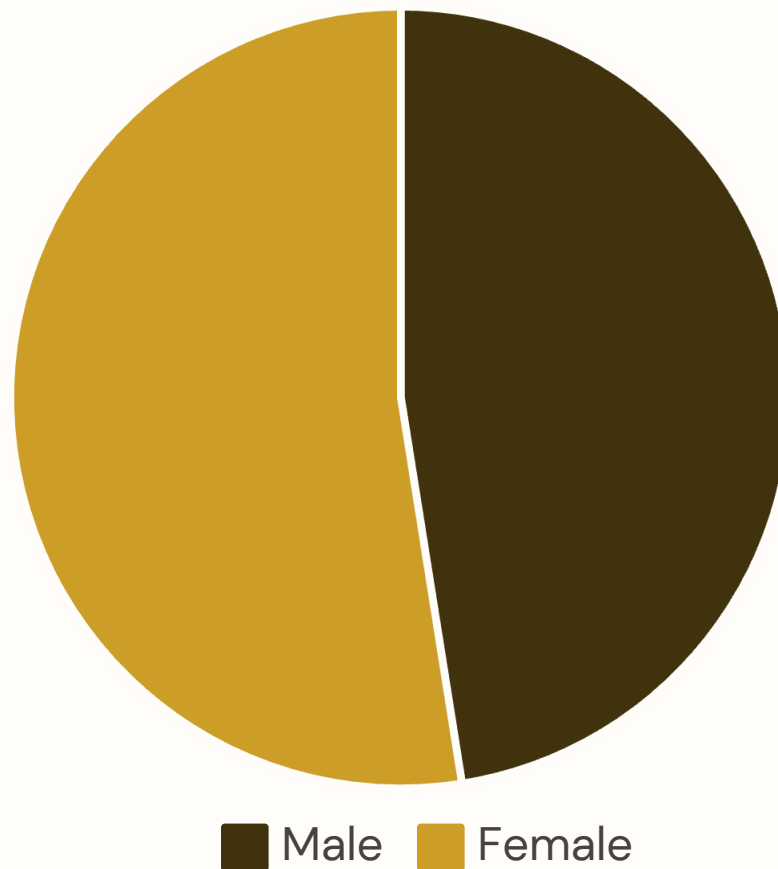
Created age groups and purchase frequency

05

Database Integration

Connected to mySQL for analysis

Revenue by Gender Analysis



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 5.5star



Clothing ceters



5 5.Star

Clothers reviews — product reviews
product in nne aham's calors

Top-Rated Products



Blouse

Highest customer satisfaction



Dress

Consistently excellent reviews



Shirt

Strong customer approval

Shipping Preferences Impact

Express Shipping

\$65

Average purchase amount

Standard Shipping

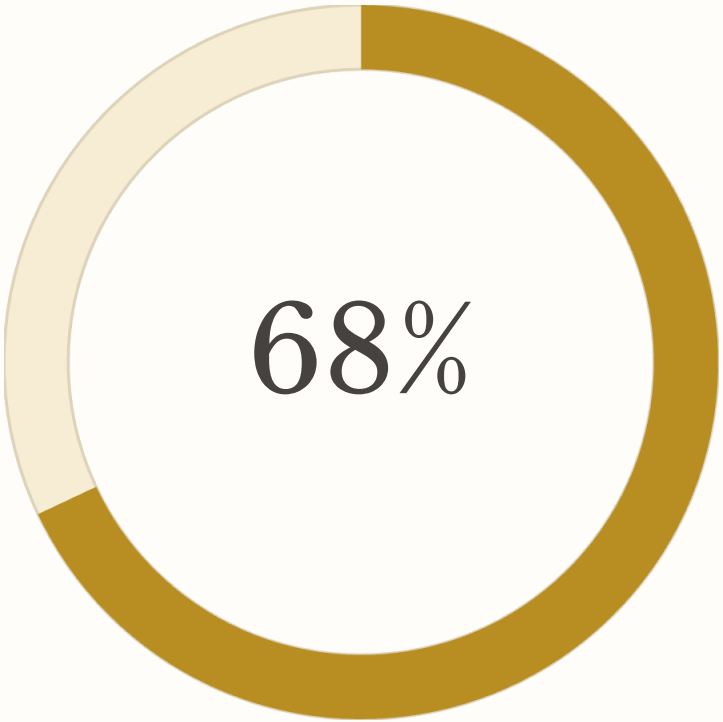
\$58

Average purchase amount

Express shipping customers spend 12% more per transaction

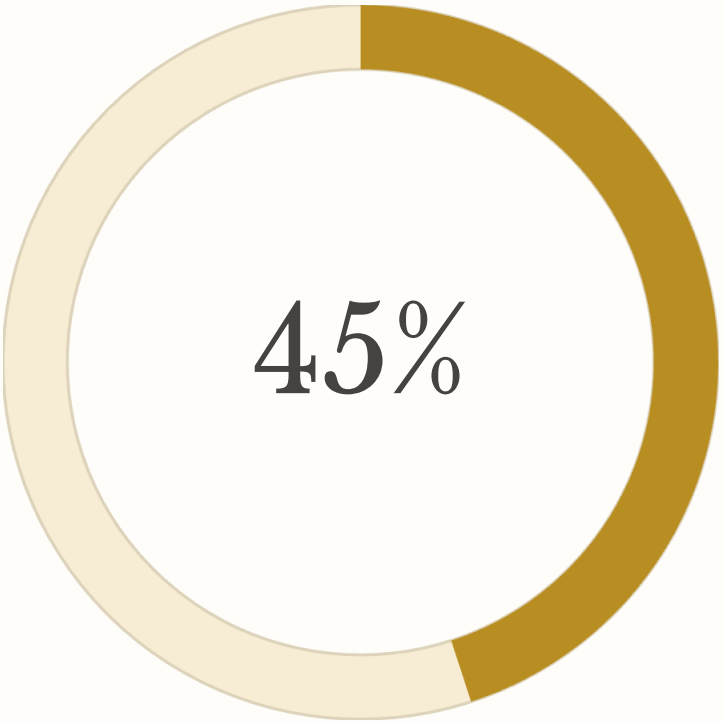


Subscription Impact



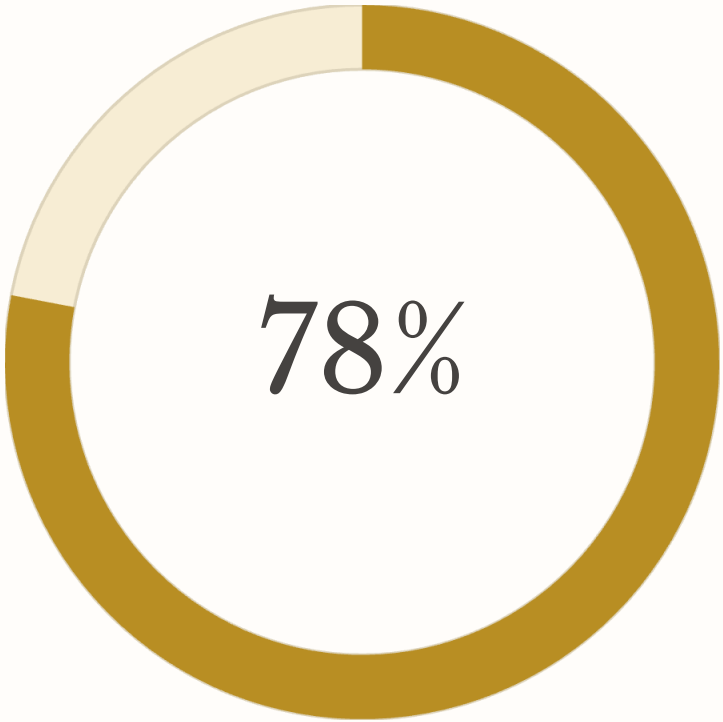
Higher Spend

Subscribers vs non-subscribers



Revenue Share

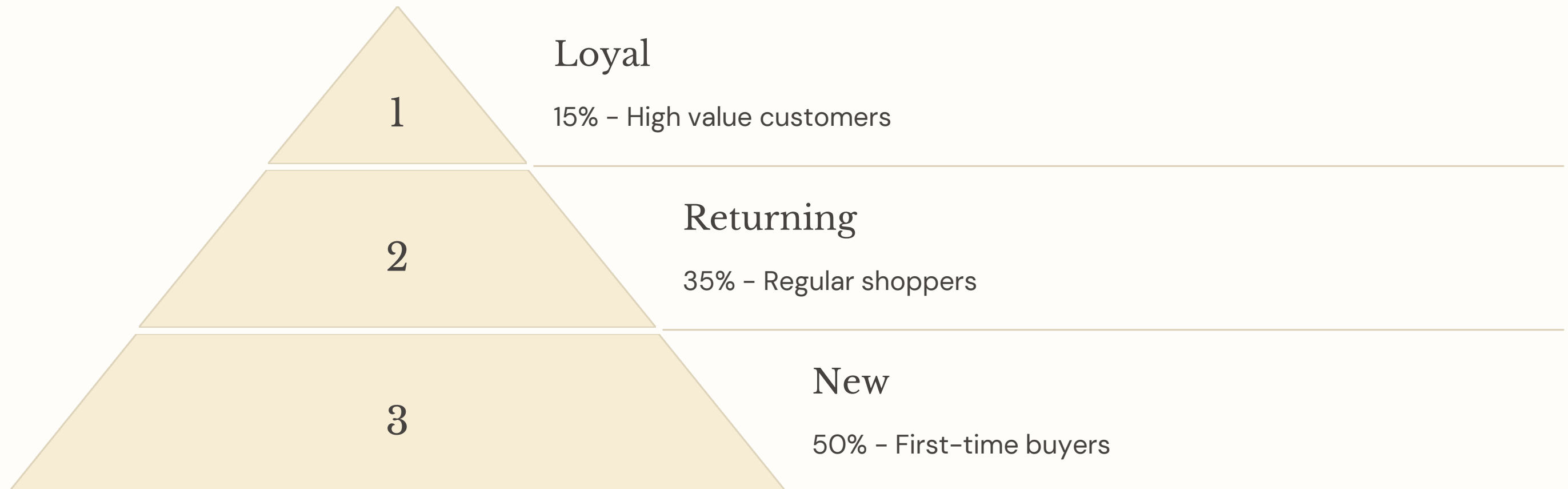
From subscription customers



Loyalty Rate

Repeat purchase frequency

Customer Segmentation



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