



# 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

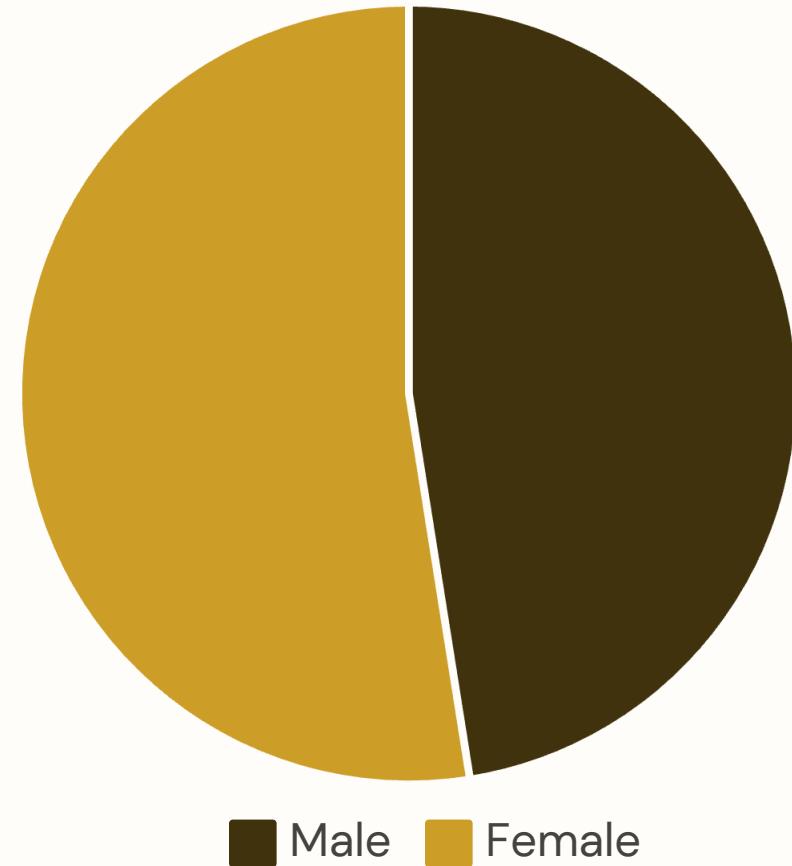
Created age groups and purchase frequency

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 \$tar



5 5. Star



Clothing cders

5 5. Star

Clothers reviews – product reviews  
product in nne ahams 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

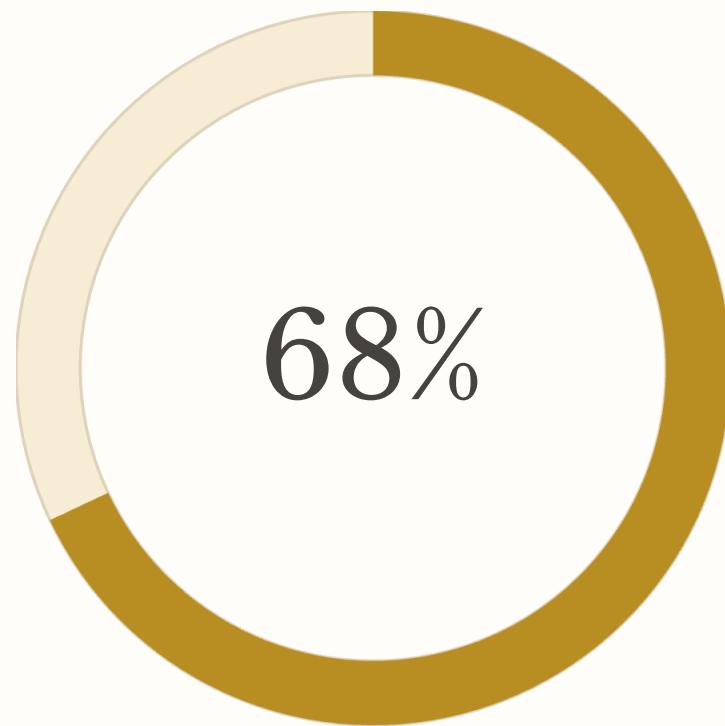
\$58

Average purchase amount

Express shipping customers spend 12% more per transaction

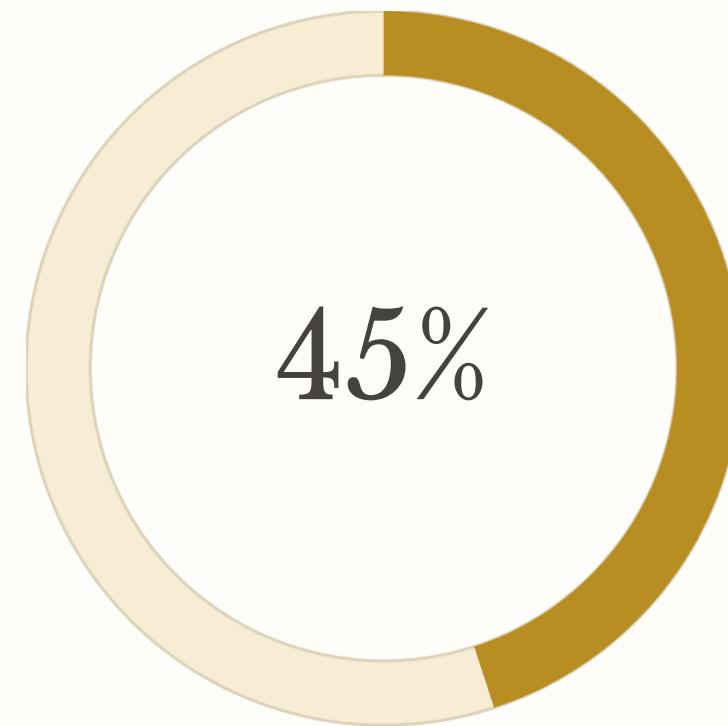


# Subscription Impact



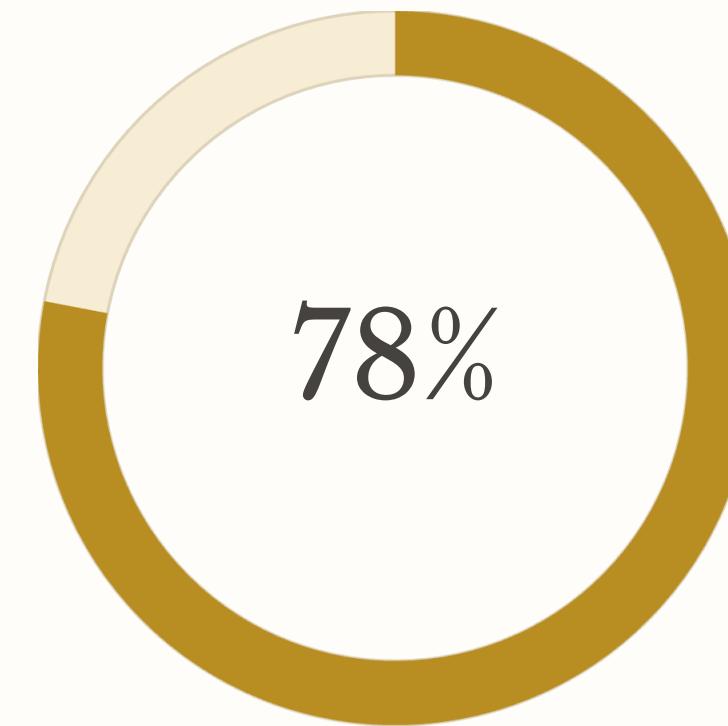
Higher Spend

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