

Customer Shopping Behavior Analysis

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





Dataset at a Glance

3,900

Total Purchases
Transactions analyzed
across all categories

18

Data Points
Features tracked per
customer

50

Locations
Geographic coverage

\$59.76

Avg Purchase
Mean transaction
value

Data Preparation Journey

01

Data Loading & Exploration

Imported dataset, analyzed structure with pandas

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

Loaded cleaned data into PostgreSQL for analysis

Revenue by Gender

Male Customers

\$157,890 total revenue

68% of total sales

Female Customers

\$75,191 total revenue

32% of total sales



Customer Segmentation Insights



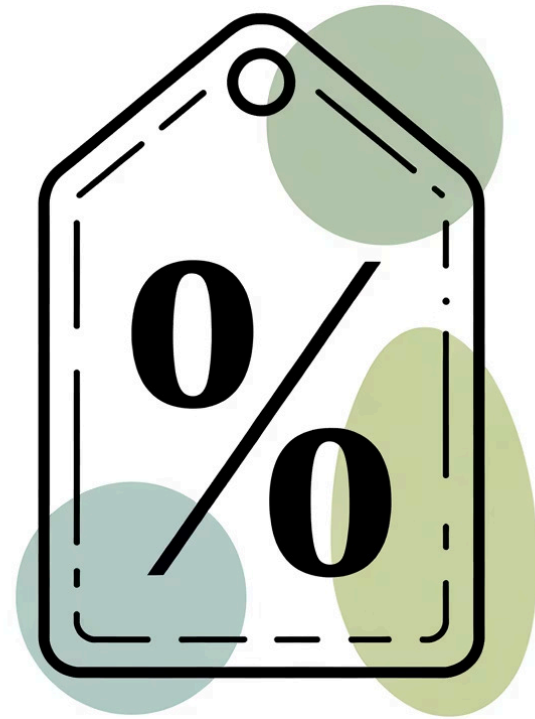
Discount Strategy Analysis

839 High-Value Discount Users

Customers using discounts while spending above average

Top Discount-Dependent Products:

- Hat: 50% discount rate
- Sneakers: 49.66%
- Coat: 49.07%
- Sweater: 48.17%
- Pants: 47.37%



Product Performance Leaders

Gloves

3.86 avg rating

Sandals

3.84 avg rating

Boots

3.82 avg rating

Top-rated products driving customer satisfaction

Subscription vs. Non-Subscription

Subscribers

1,053 customers

\$59.49 average spend

\$62,645 total revenue

Non-Subscribers

2,847 customers

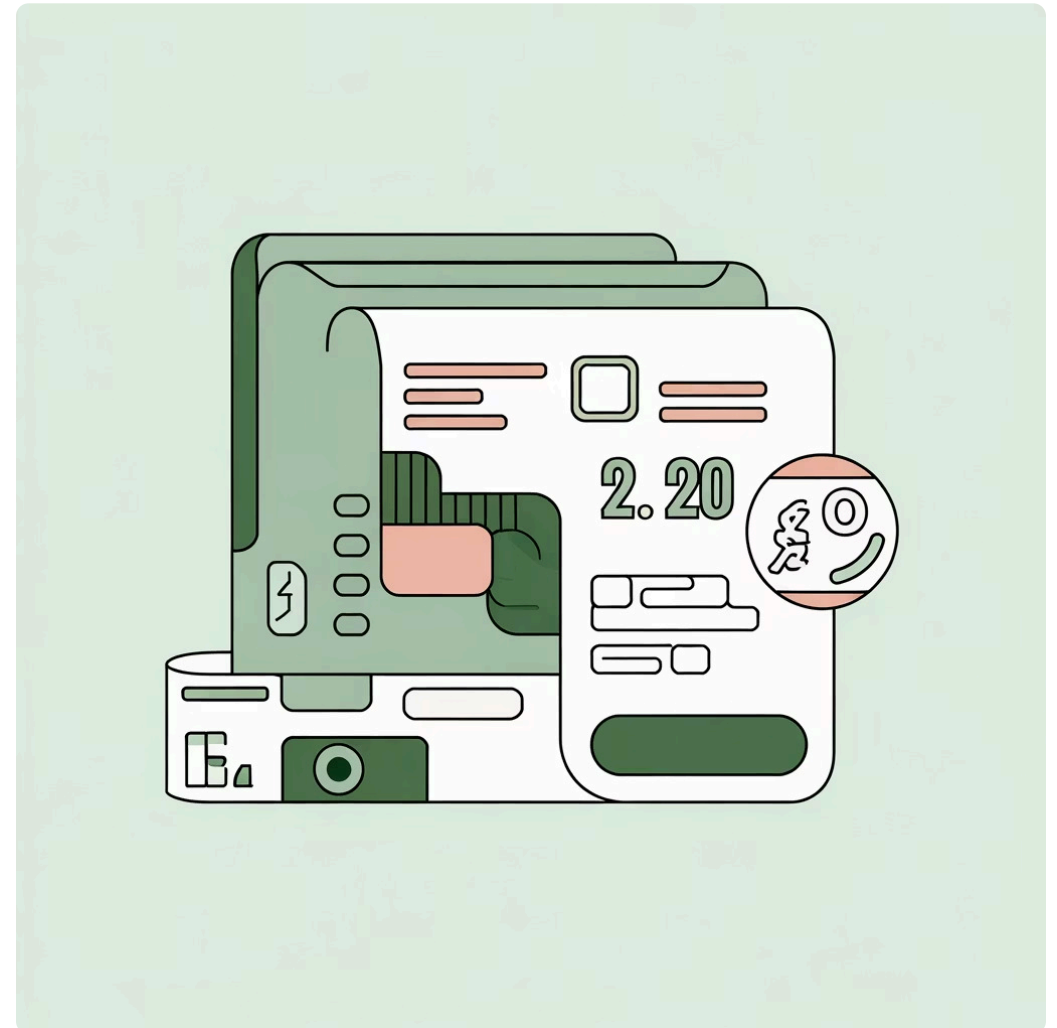
\$59.87 average spend

\$170,436 total revenue

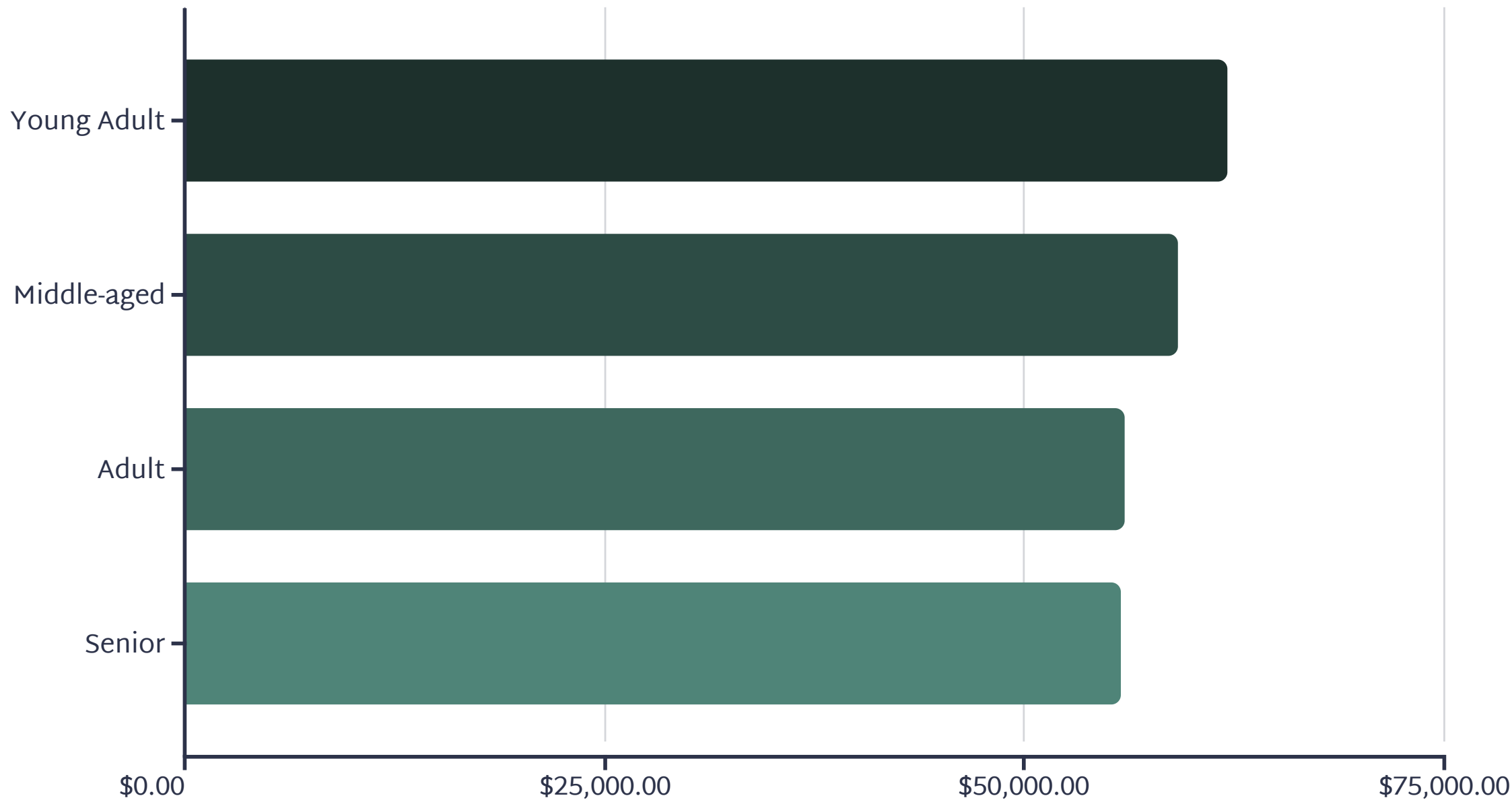
Repeat Buyers & Subscriptions

958 subscribers are repeat buyers

2,518 non-subscribers are repeat buyers



Revenue by Age Group



Young adults lead revenue generation, followed closely by middle-aged customers



Strategic Recommendations



Boost Subscriptions

Promote exclusive benefits to convert non-subscribers



Loyalty Programs

Reward repeat buyers to strengthen retention



Review Discount Policy

Balance sales growth with margin control



Targeted Marketing

Focus on high-revenue age groups and express shipping users