Customer Shopping Behavior Analysis

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

Made with GAMMA

Dataset at a Glance

3,900

Total Purchases

Transactions analyzed

18

Data Points

Features per transaction

50

Locations

Geographic coverage

25

Products

Items tracked

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Data Preparation Journey

01

Data Loading

Imported dataset using pandas, explored structure with df.info()

02

Missing Data

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 advanced SQL analysis

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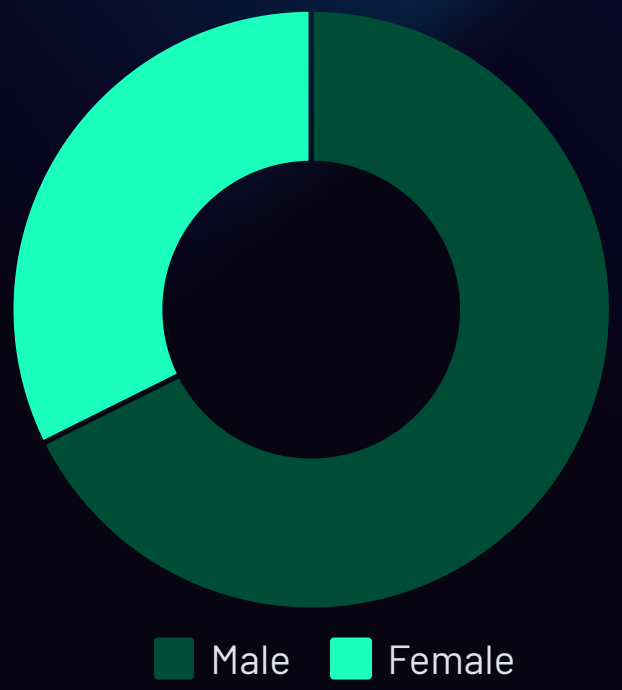
Revenue by Gender



Male Customers Drive Revenue

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

Total revenue: $233,081

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Smart Discount Users

839 Customers

Used discounts but spent above average

High-Value Buyers

Average spend: $60+ despite discounts

Strategic Opportunity

Prime segment for loyalty programs

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Top-Rated Products

77%

Gloves

Highest rating: 3.86/5.0

77%

Sandals

Strong performance: 3.84/5.0

76%

Boots

Customer favorite: 3.82/5.0

76%

Hat

Solid rating: 3.80/5.0

76%

Skirt

Top 5 performer: 3.78/5.0

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Customer Segmentation Insights

Loyal Customers

3,116 customers (80% of base)

Backbone of revenue stream

Returning Buyers

701 customers (18%)

Growth opportunity segment

New Shoppers

83 customers (2%)

Acquisition focus needed

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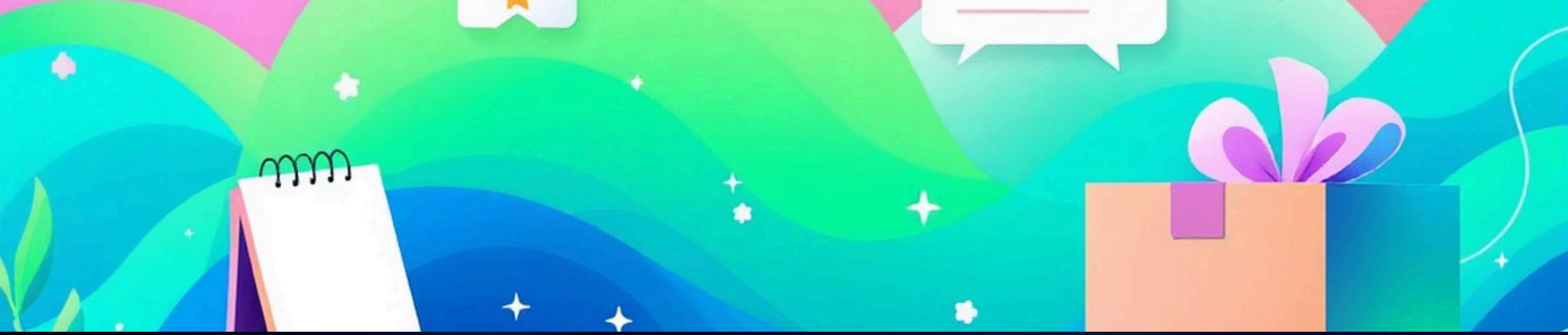

Subscription Analysis

Subscribers vs Non-Subscribers

- **1,053 subscribers** - avg spend $59.49
- **2,847 non-subscribers** - avg spend $59.87
- Total subscriber revenue: $62,645
- Non-subscriber revenue: $170,436

Repeat Buyers & Subscriptions

958 subscribers have 5+ purchases

2,518 non-subscribers are repeat buyers

Huge conversion opportunity

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Revenue by Age Group

Young adults lead revenue generation, but all segments show balanced contribution

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Strategic Recommendations

Boost Subscriptions

Convert 2,518 repeat buyers with exclusive benefits

Loyalty Programs

Reward 3,116 loyal customers to increase lifetime value

Review Discount Policy

Balance 839 smart discount users with margin control

Product Positioning

Highlight top-rated items: Gloves, Sandals, Boots

Targeted Marketing

Focus on young adults and express shipping users

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