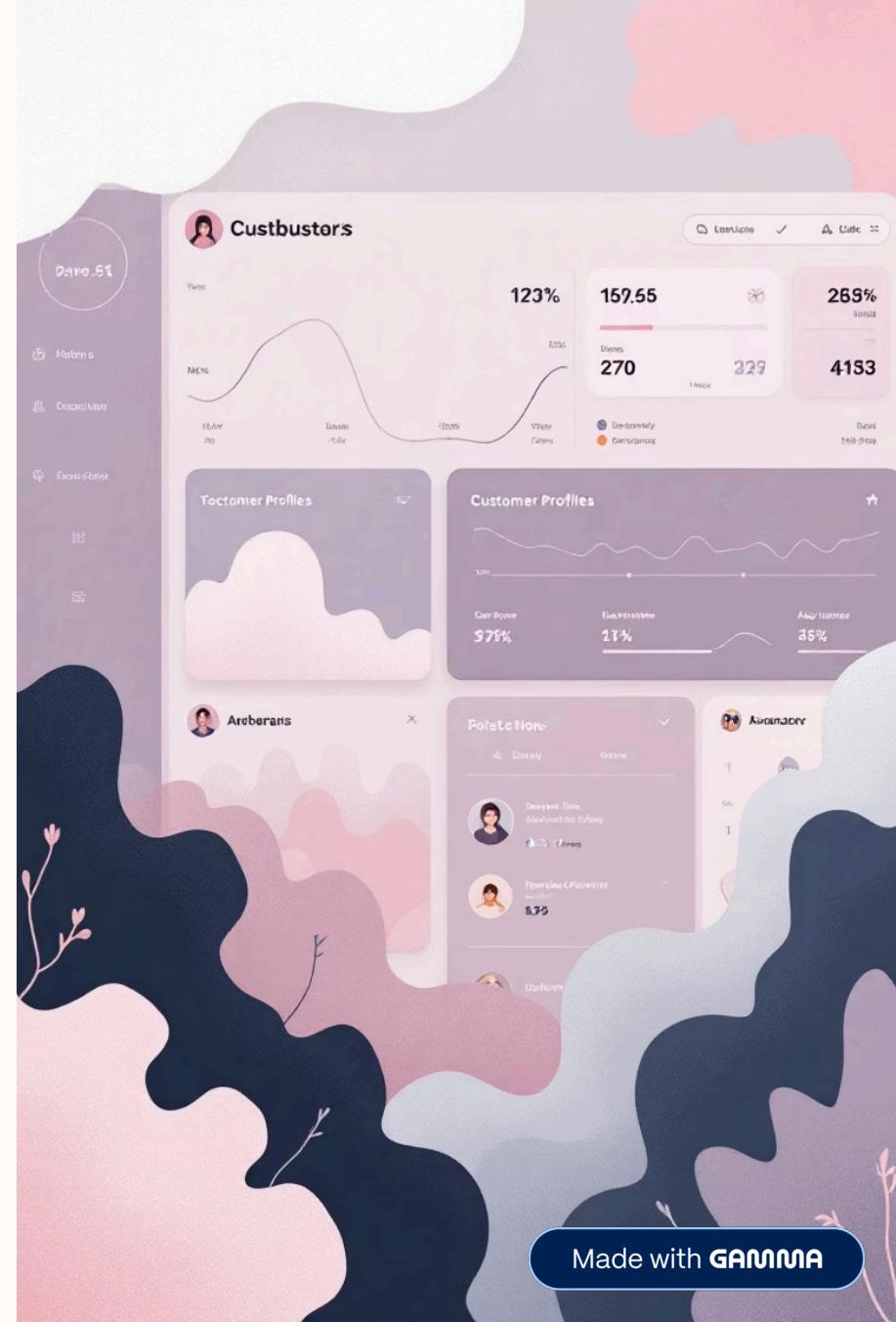


Customer Shopping Behavior Analysis

Exploring key insights from customer data to understand purchasing patterns and preferences.



Data Overview & Cleaning

Initial Data Scan

The dataset contains 3900 entries across 18 columns, including customer demographics, purchase details, and review ratings.

One column, 'Review Rating', had 37 missing values, which were imputed using the median review rating per category.



Column Renaming

Columns were standardized to lowercase and spaces replaced with underscores for easier access.

Age Group Creation

A new 'age_group' column was created by quantiling ages into 'Young', 'Adult', 'Middle-Adult', and 'Senior-Citizen'.

Redundant Column Removal

The 'promo_code_used' column was dropped as 'discount_applied' provided sufficient information.



Univariate Analysis: Key Categorical Features



Item Purchased

Blouse, Jewelry, and Pants are the most frequently purchased items.



Gender Distribution

Male customers significantly outnumber female customers in the dataset.



Category Popularity

Clothing dominates purchases, followed by Accessories, Footwear, and Outerwear.



Location Spread

Purchases are distributed across 50 unique locations, with Montana having the highest count.

Univariate Analysis: Purchase Characteristics



Size Preferences

Medium (M) is the most popular size, followed by Large (L), Small (S), and Extra Large (XL).



Color Choices

Olive is the most purchased color, with a wide variety of other colors also popular.

Seasonal Trends

Spring, Fall, and Winter show similar purchase frequencies, with Summer slightly lower.

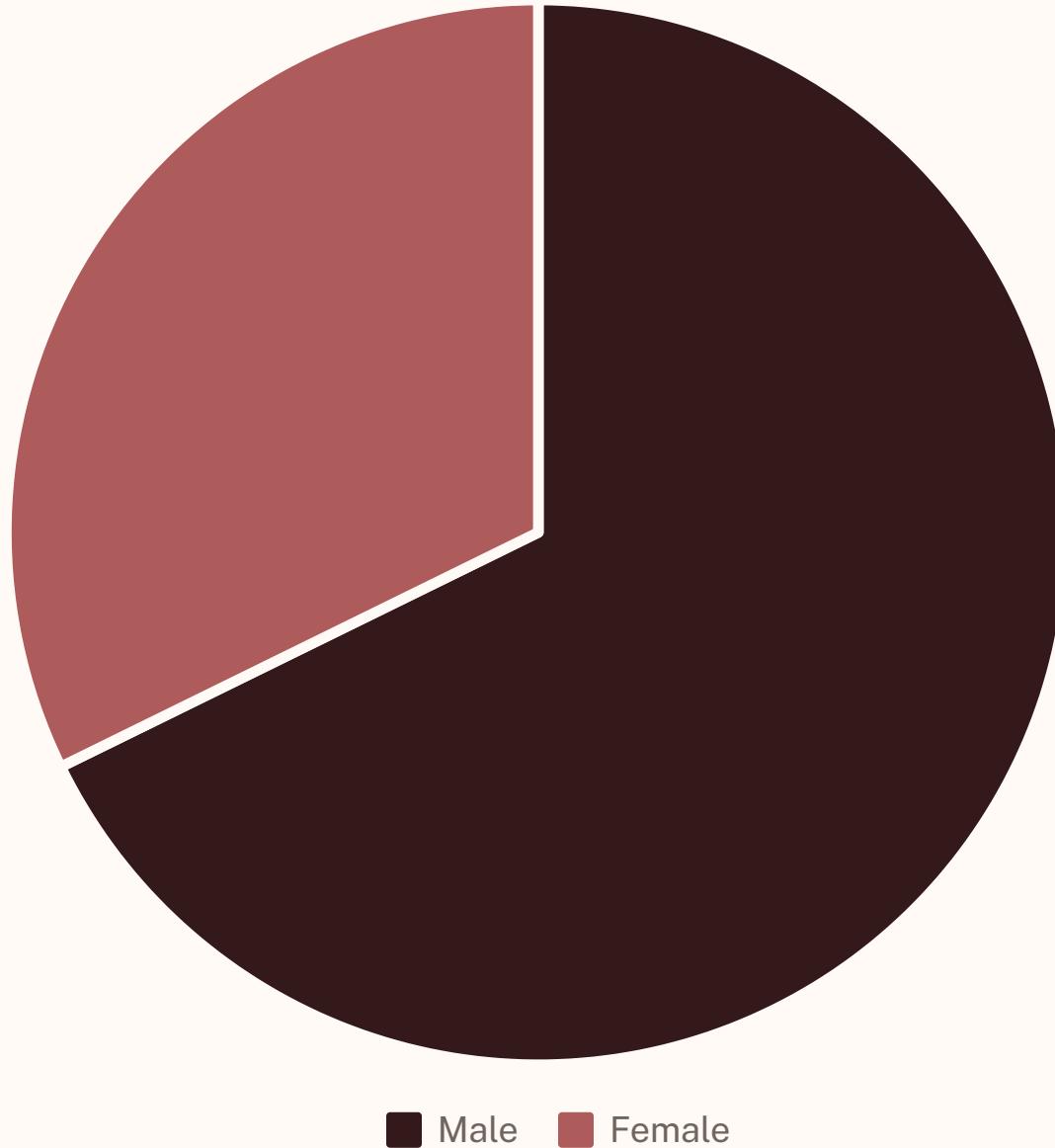
Subscription Status

A majority of customers (2847) do not have a subscription, while 1053 are subscribed.

Shipping Type

Free Shipping is the most common, followed closely by Standard, Store Pickup, and other options.

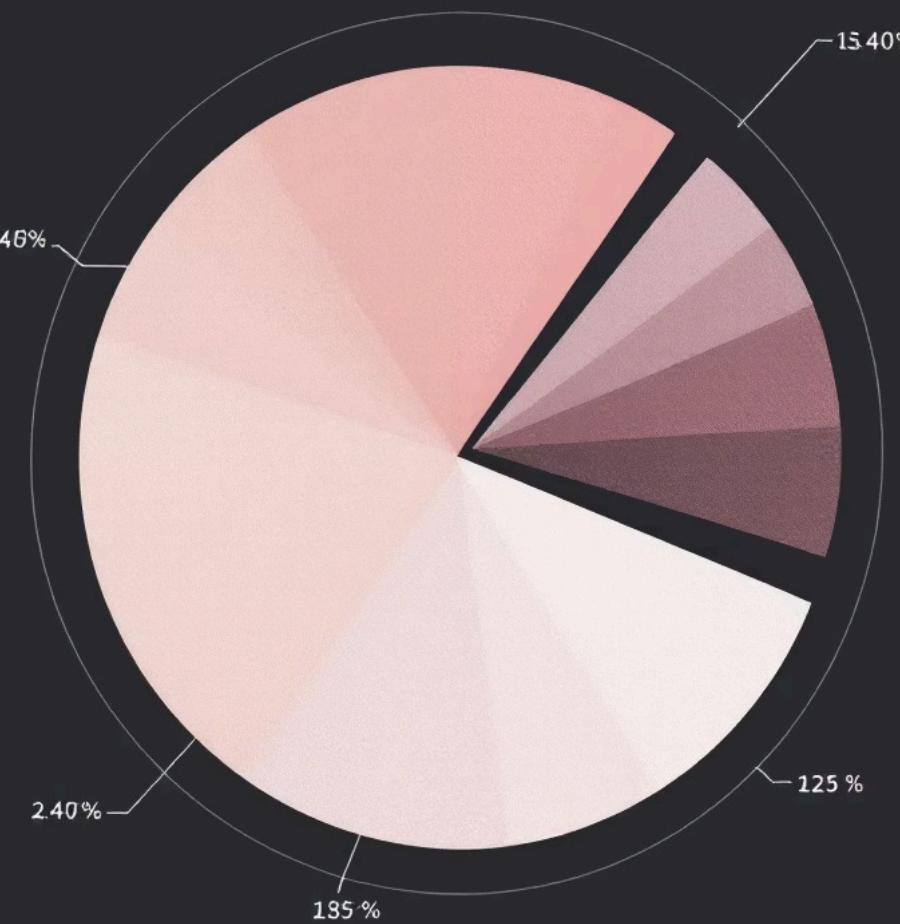
Revenue by Gender



Male customers contribute significantly more to total revenue (67.7%) compared to female customers (32.3%).

Insig idhusting

High-spending customers with discounts



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(nitin cloud mants)

High-spending cerotes discount)

High-Spending Customers with Discounts

839 customers used a discount and still spent more than the average purchase amount.

1

Discount Usage

Customers are leveraging discounts effectively, leading to higher individual purchase values.

2

Above Average Spend

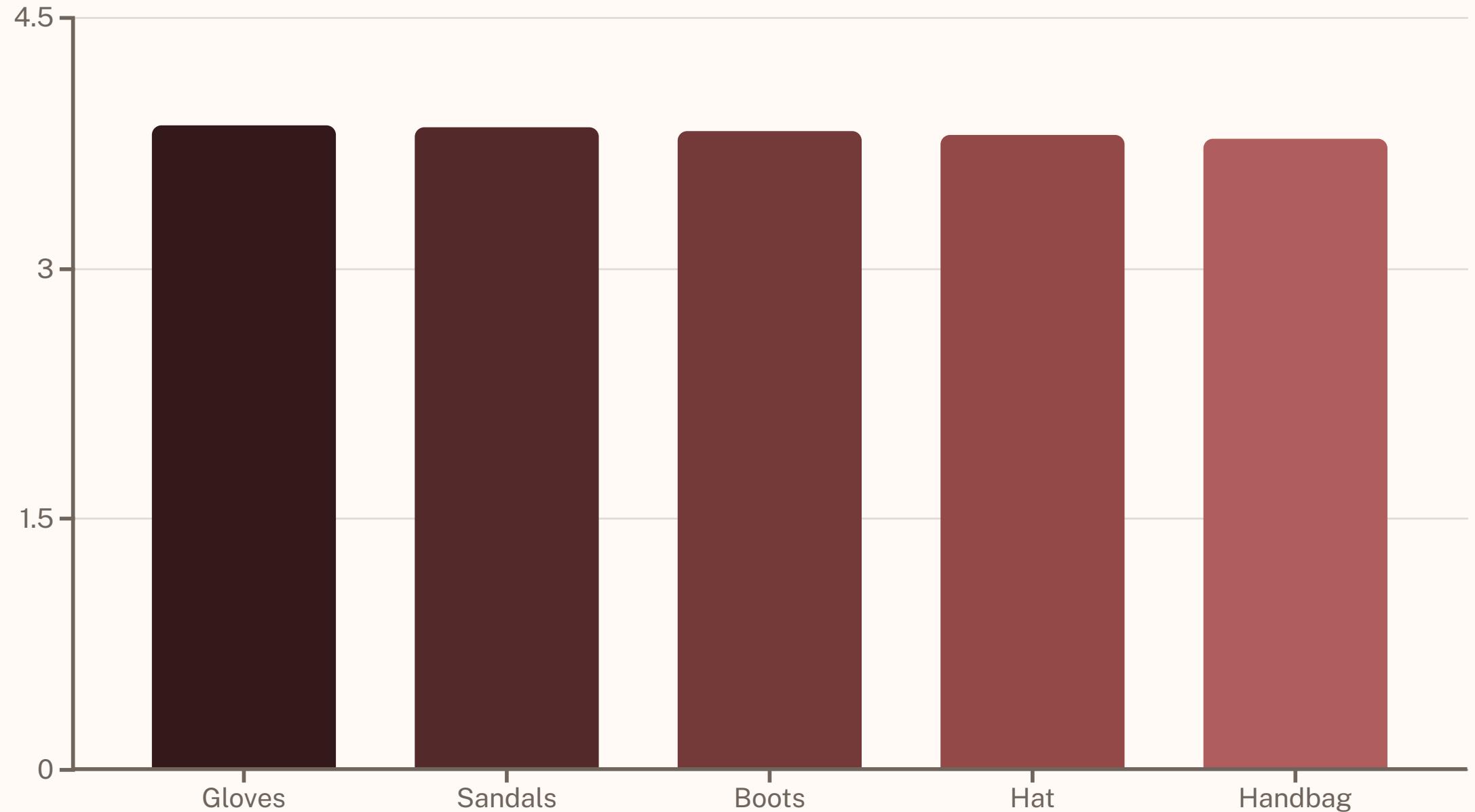
A substantial number of customers are making significant purchases even with discounts applied.

3

Strategic Pricing

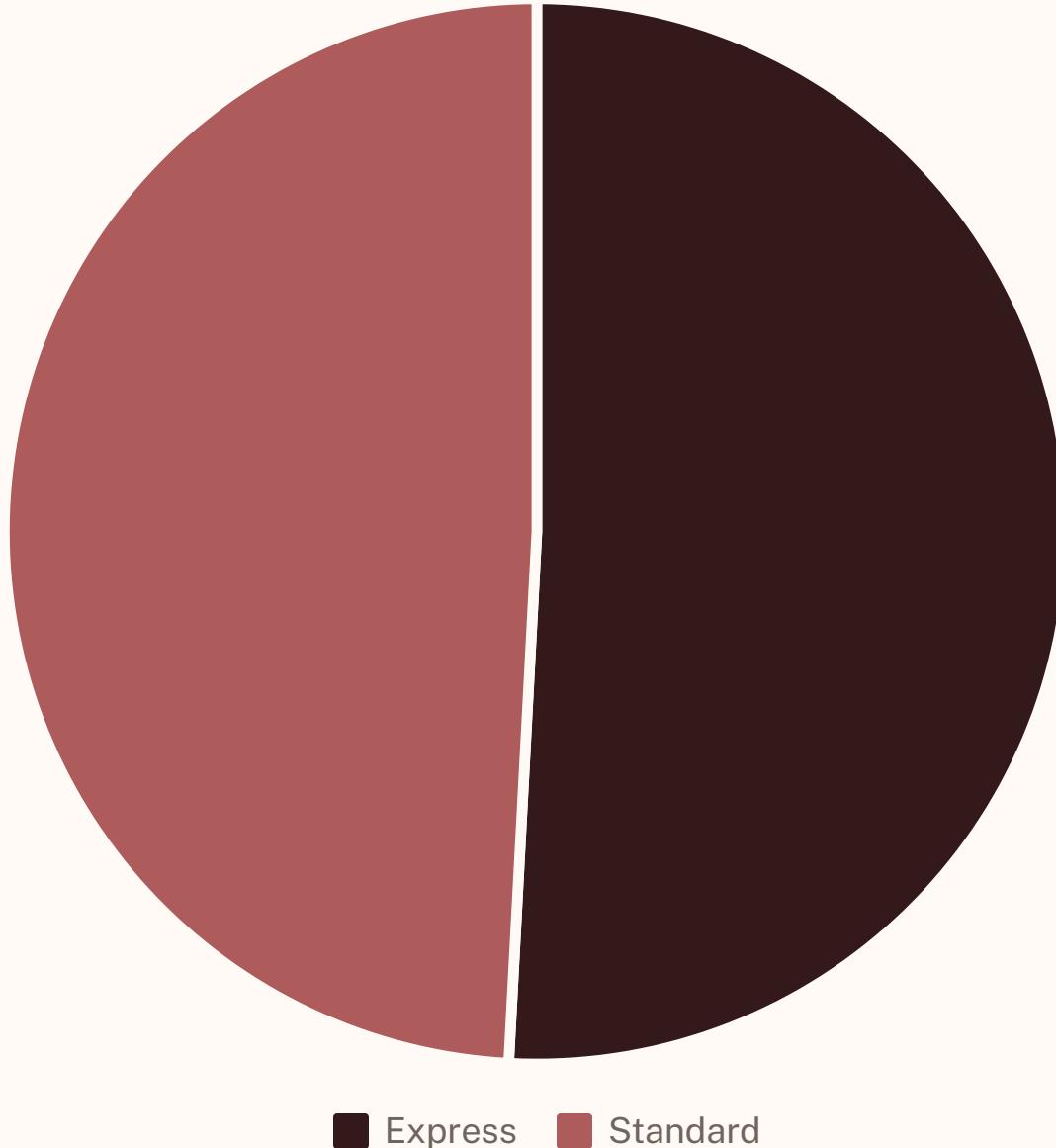
This indicates that discounts can be a powerful tool to drive higher transaction values.

Top 5 Products by Average Review Rating



Gloves lead with the highest average review rating, followed closely by Sandals, Boots, Hat, and Handbag.

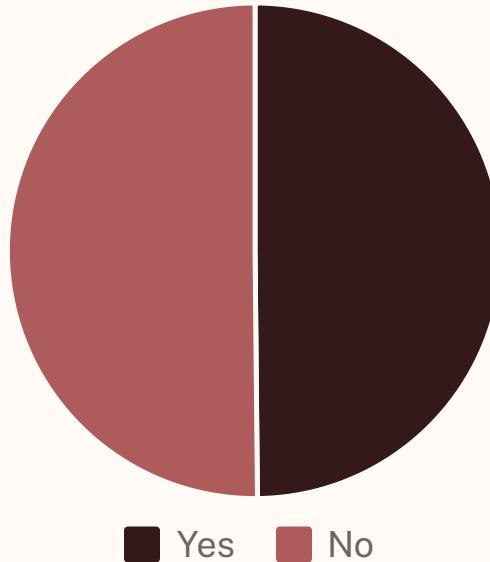
Shipping Type: Average Purchase Amount



Customers using Express shipping have a slightly higher average purchase amount (\$60.47) compared to Standard shipping (\$58.46).

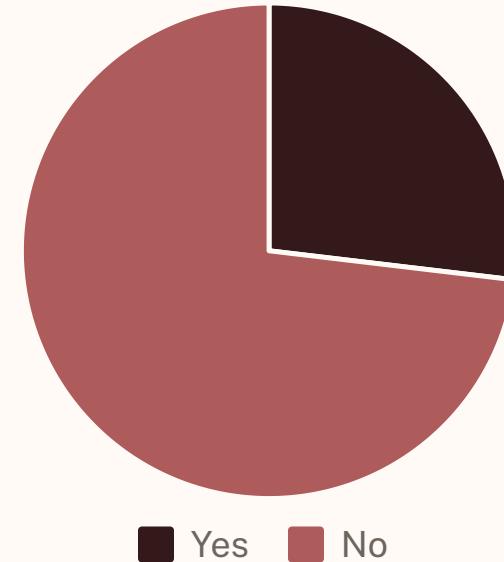
Subscriber vs. Non-Subscriber Spending

Average Spend



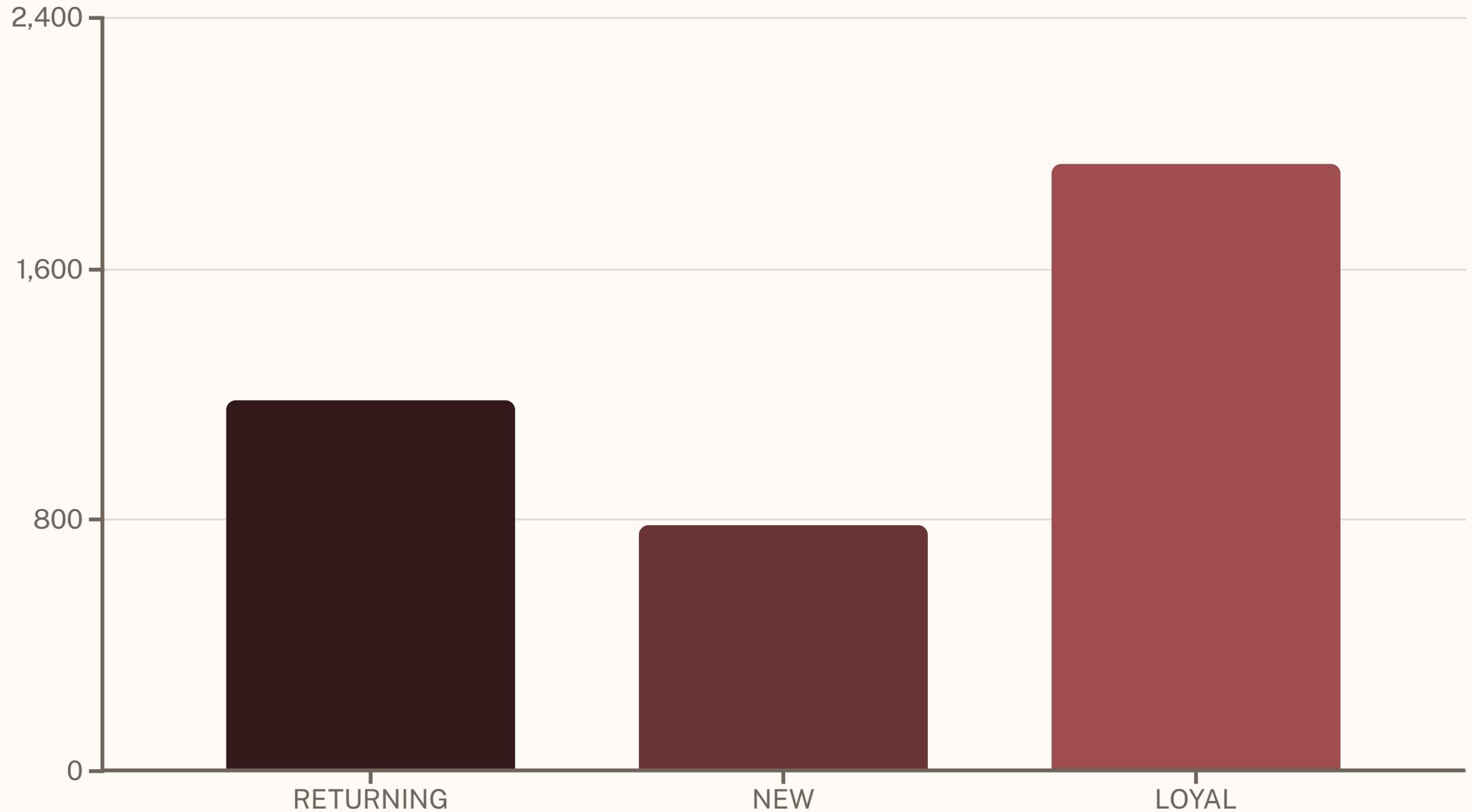
Non-subscribers show a marginally higher average spend (\$59.86) than subscribers (\$59.49).

Total Revenue



Non-subscribers contribute significantly more to total revenue (73.1%) than subscribers (26.9%).

Customer Segmentation by Previous Purchases



Customers are segmented into three groups based on previous purchases: Loyal (1935), Returning (1181), and New (784).