



# E-commerce Return Rate Reduction Analysis



All

## Payment Method

Credit Card

Debit Card

Gift Card

PayPal

## Shipping Method

Express

Next-Day

Standard

30K

Total Order Quantity

50.52%

Return Rate

Female

Male

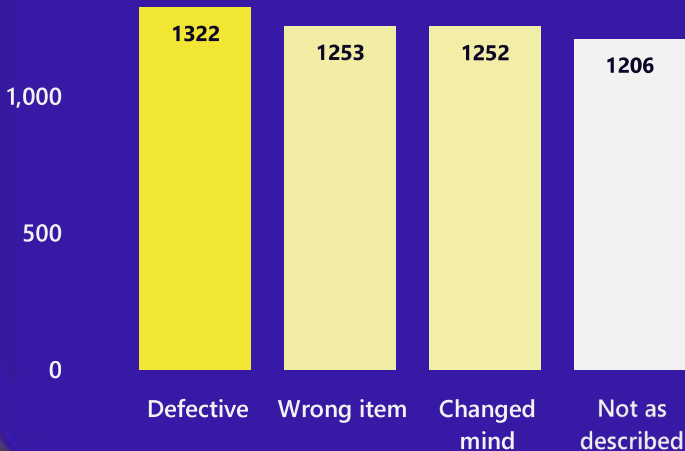
122.90

Avg Days took to Return

Clothing

High Risk Product Category

## Top Return Reasons

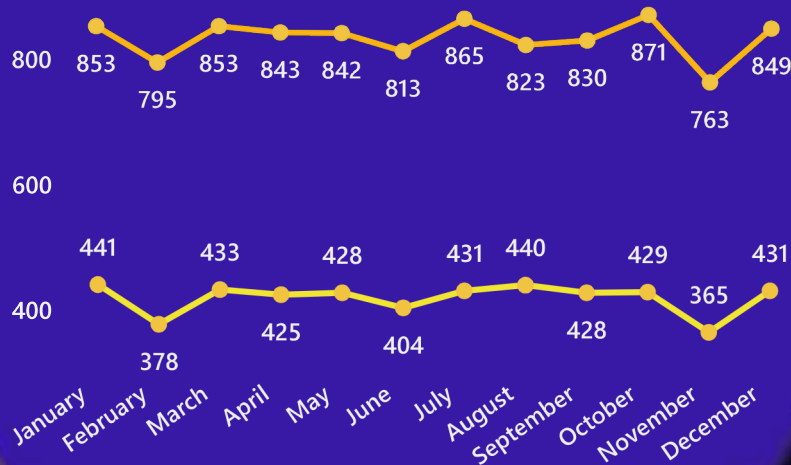


## Return Rate by Location

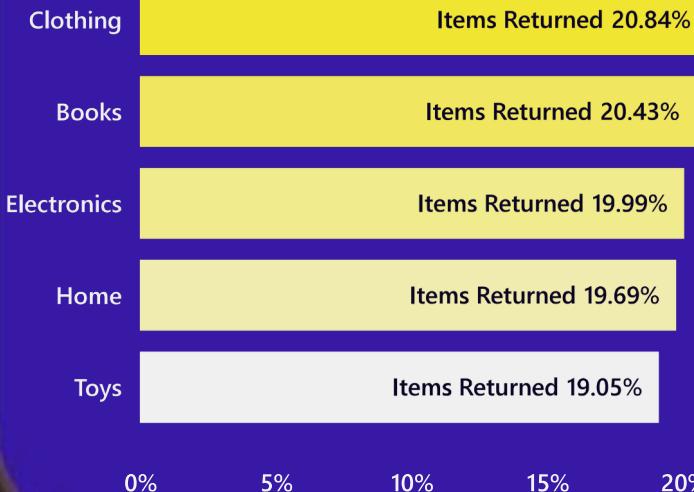
User Location	Total Items Returned
City15	63
City43	63
City71	63
City81	63
City10	61
City26	61
City39	61
City85	61
City28	59
City68	59
City84	59

## Monthly Trends

Total Items Returned Total Order



## Return Rate by Category





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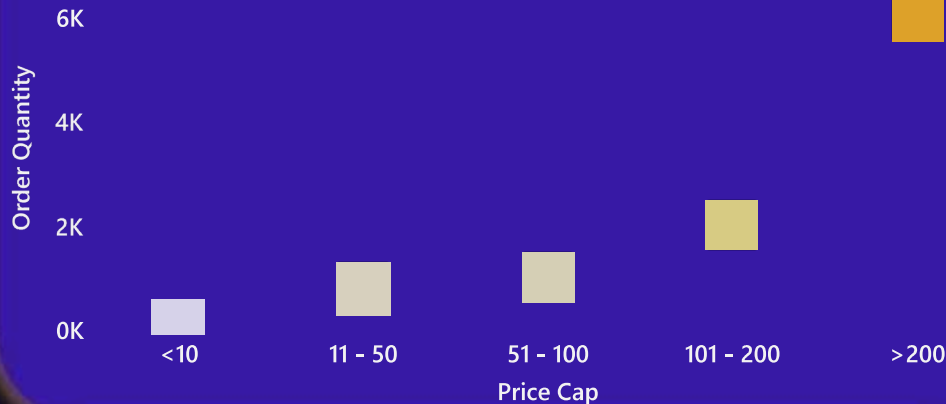
PayPal

- ☐ Books
- ☐ Clothing
- ☐ Electronics
- ☐ Home
- ☐ Toys

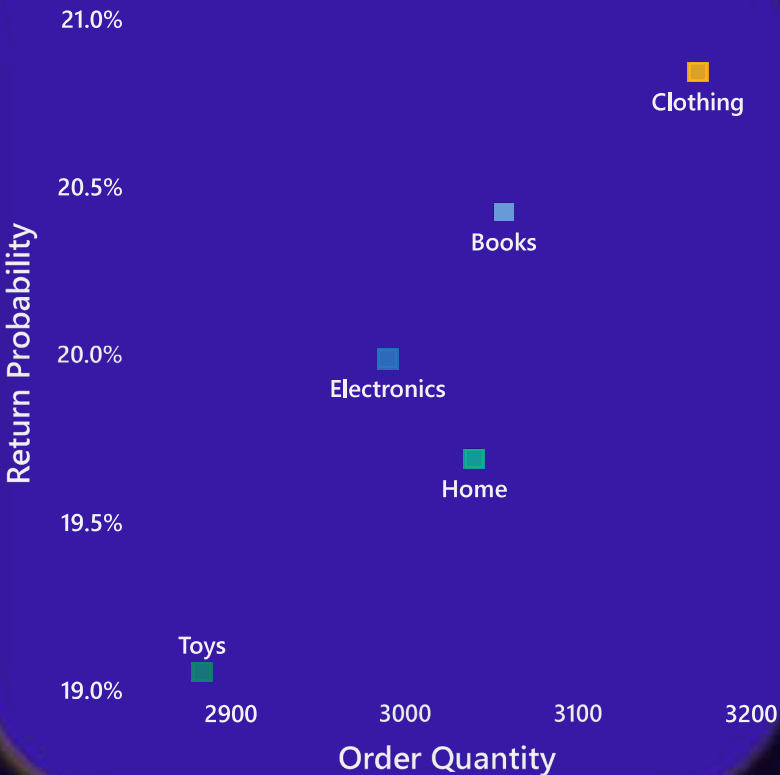
Female

Male

## Risk by Price Bracket



## Risk VS Quantity



## Shipping Method

Express

Next-Day

Standard

## Returned VS Discount



## High-Risk Product Table

Product Category	Product Price	Return Probability
Clothing	\$254.73363	52.45%
Electronics	\$252.2187506297229	50.93%
Books	\$249.6778784909358	50.66%
Toys	\$255.5598611111111	49.54%
Home	\$249.8377684729064	49.01%
Total	\$252.369307	50.52%



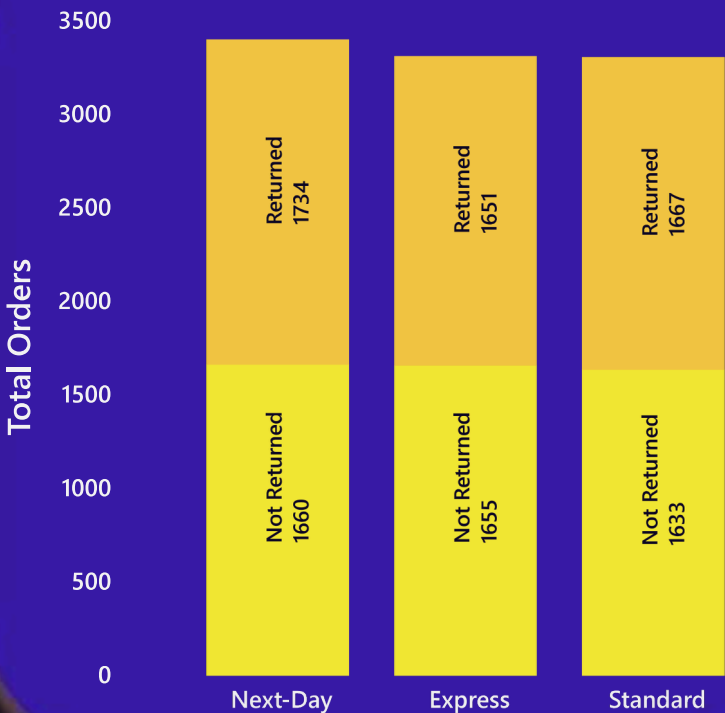
# E-commerce Return Rate Reduction Analysis



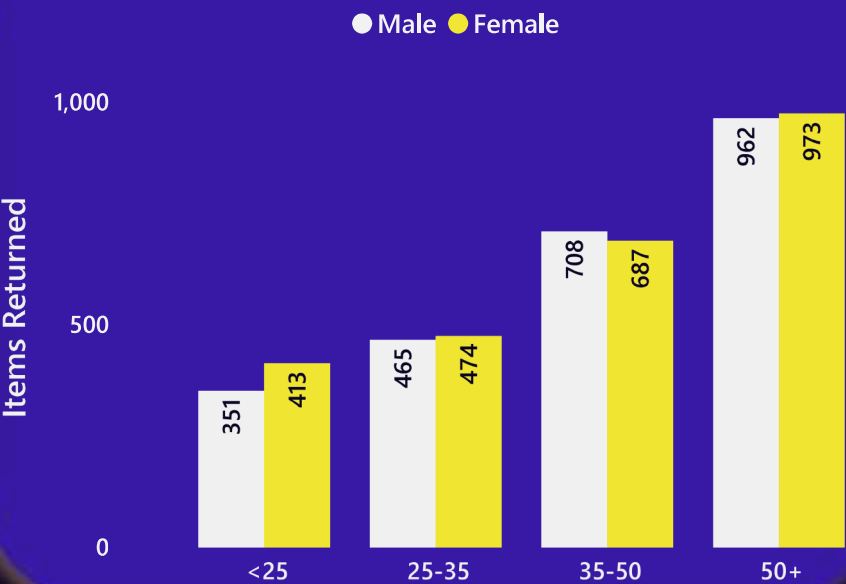
All



## Return Rate by Shipping Method



## Return Rate by Gender & Age



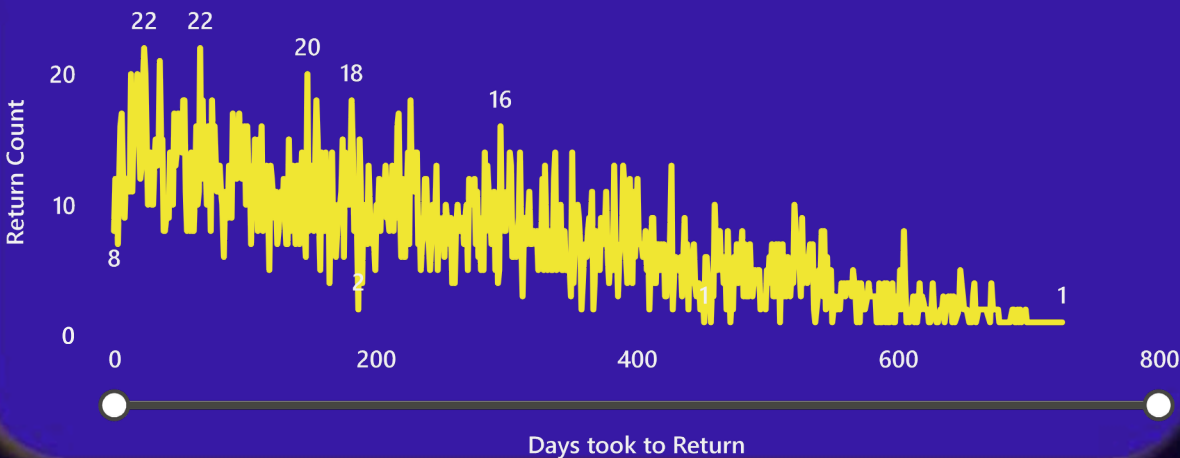
## Age Group

- ☐ <25
- ☐ >50
- ☐ 25 - 35
- ☐ 35 - 50

Female

Male

## Days to Return Distribution



## Price Cap

<10

>200

101 - 200

11 - 50

51 - 100

## Shipping Method

Express

Next-Day

Standard

## Payment Method & Return

Payment Method	Not Returned	Returned	Total
Credit Card	1224	1249	2473
Debit Card	1227	1283	2510
Gift Card	1228	1309	2537
PayPal	1269	1211	2480
Total	4948	5052	10000



## E-commerce Return Rate Reduction Analysis



Top Return Reasons : Majority of returns are due to **product issues or unmet expectations** rather than buyer remorse.

Return Rate by Category : **Clothing, Books, and Electronics** dominate returns — likely due to size mismatch, content dissatisfaction, or faults.

Return Rate by Location : Returns are regionally concentrated, suggesting **operational or logistic** bottlenecks.

Risk by Price Brackets : Mid-price range (\$11–\$50) has **disproportionately high return probability** — quality or expectation gaps may exist.

Returned Items vs. Discount Applied : Discounts likely drive impulsive buys that end in return — use with caution on certain categories.

Return Probability vs Quantity : Return probability is **correlated with high-volume categories**, especially **Clothing**.

High-Risk Product Table : High-priced items with above-average return probability must be reviewed for **product quality issues**.

Return Rate by Gender & Age Group : Users aged **50+ have the highest returns**, with **females slightly more likely to return** across all age groups.

Payment Method vs Returns : Return rate is **fairly consistent across payment methods**, but **gift cards slightly lead** in return %.

### Summary Insights

- **Clothing** is the top category for returns and high-risk products
- Returns are driven by **product quality issues**, not pricing alone
- **Mid-range discounts and prices** are sweet spots for returns
- Older customers return more — tailor user experience accordingly