

Project 2: Superstore

Skills Leveraged:

- PostgreSQL
- Excel
- PowerPoint

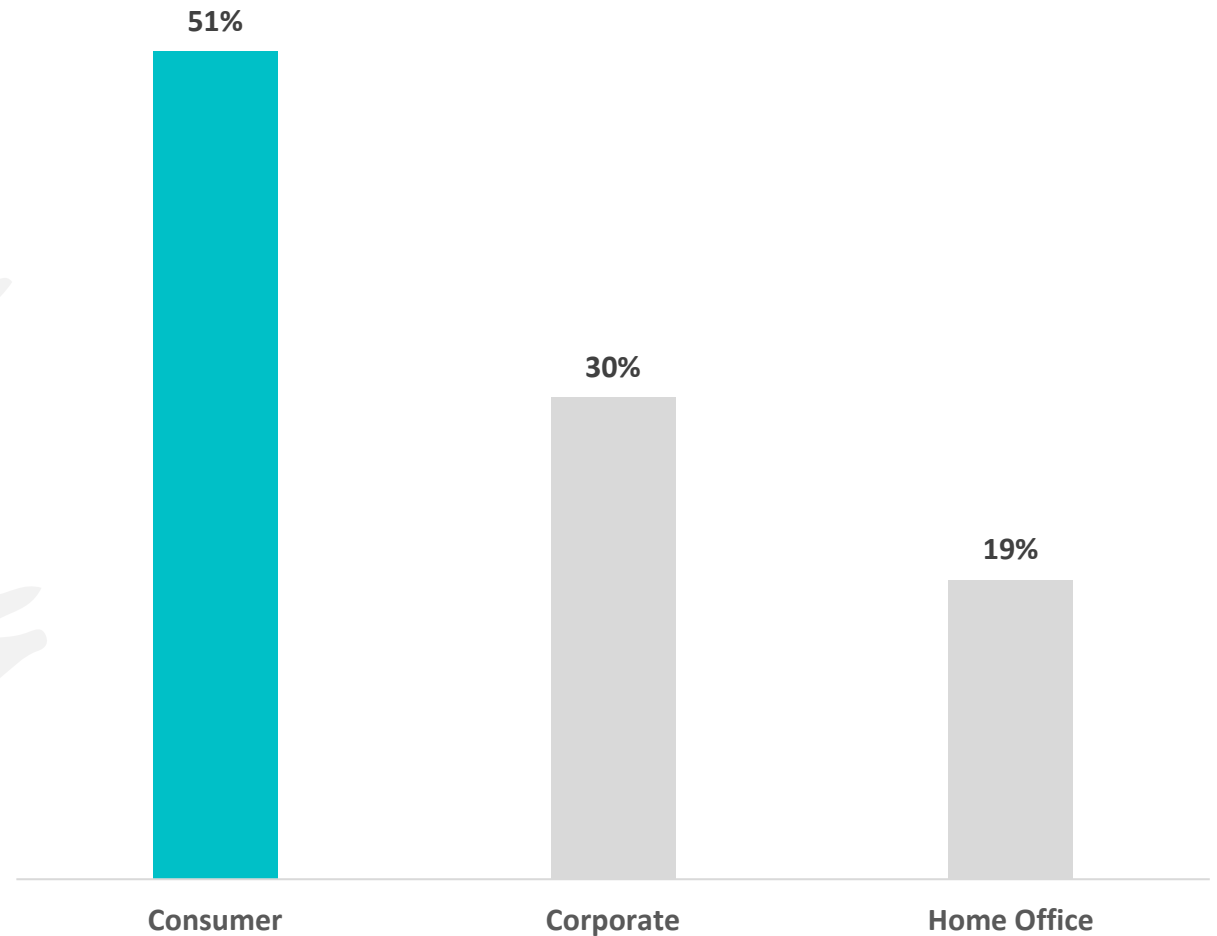
Problem

- We want to find out which customer and product segment are performing best.
- Where can we improve to reduce amount of products sent back.
 - 5% orders sent back
 - 9% loss in revenue, or \$22m

Orders in Customer Segment

- In terms of order volume, the **Consumer** segment performs best.
- Over half of our orders are from them.

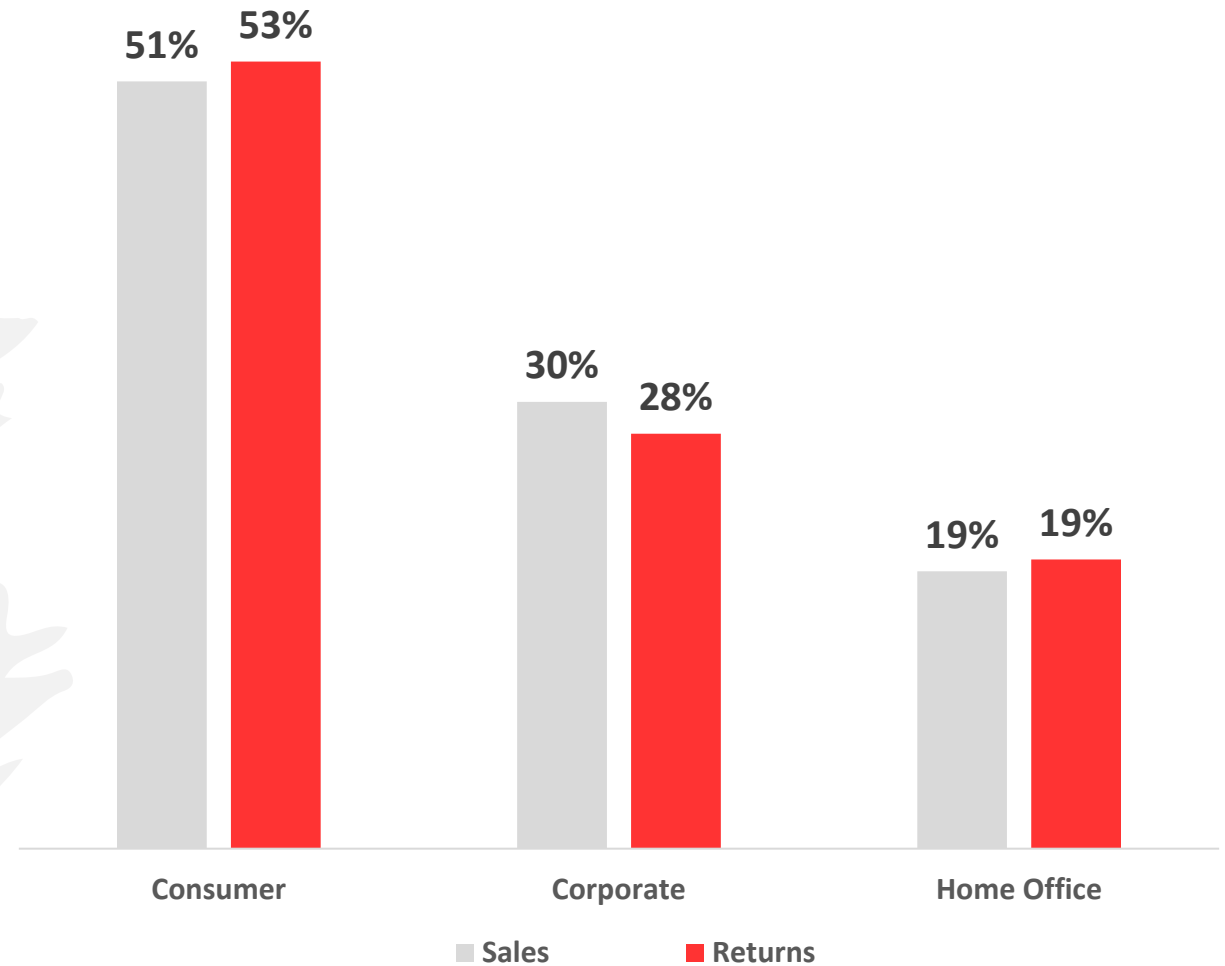
% of orders for each customer segment



Returns in Customer Segment

- Number of returns for each customer segment is normal.
- Returns in each customer segment is proportional to the orders made

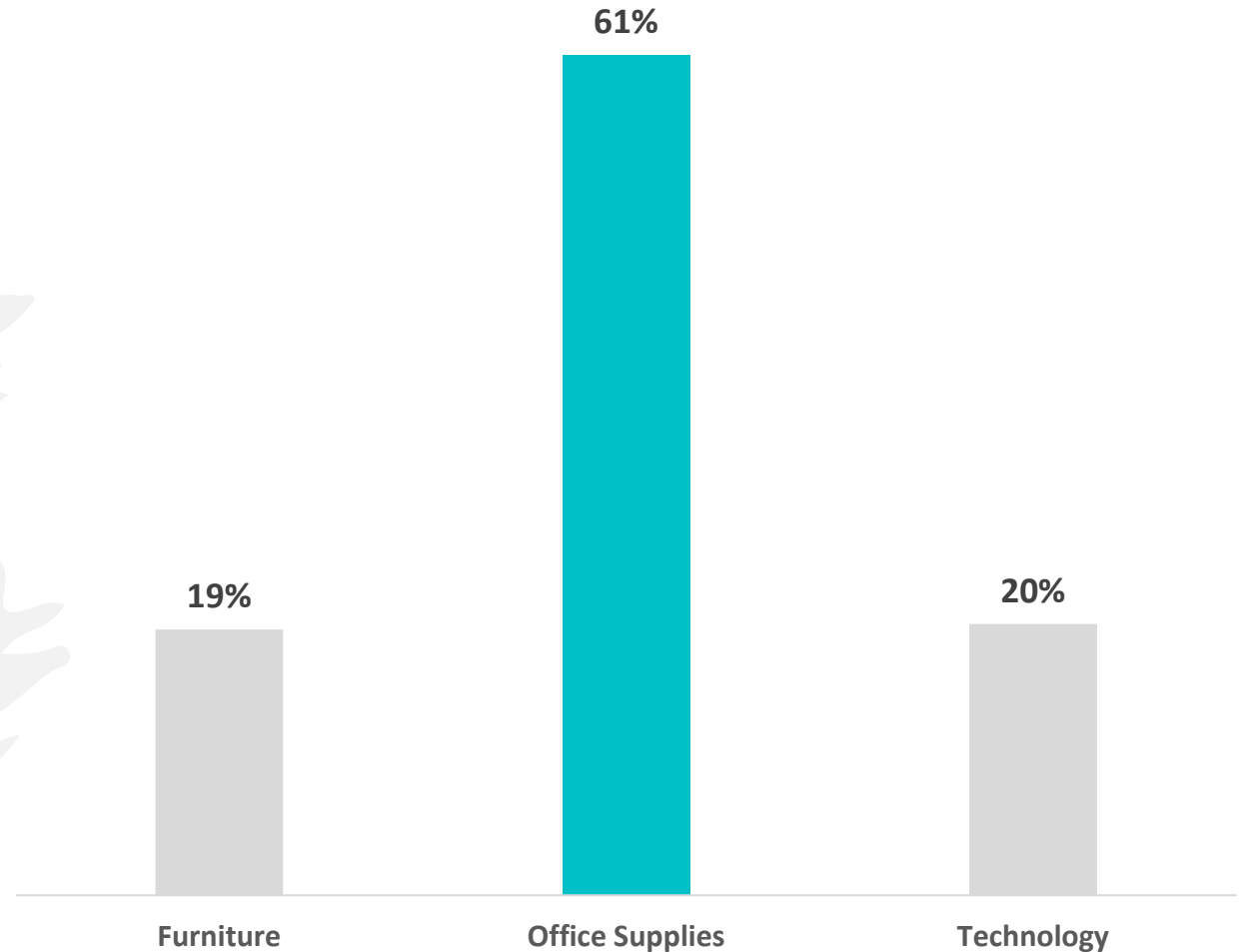
Orders and returns for each customer segment



Product Category

- Majority of products sold are **office supplies**. With tech and furniture nearly tied.
- Is what we expected. Office supplies need to be replenished constantly.

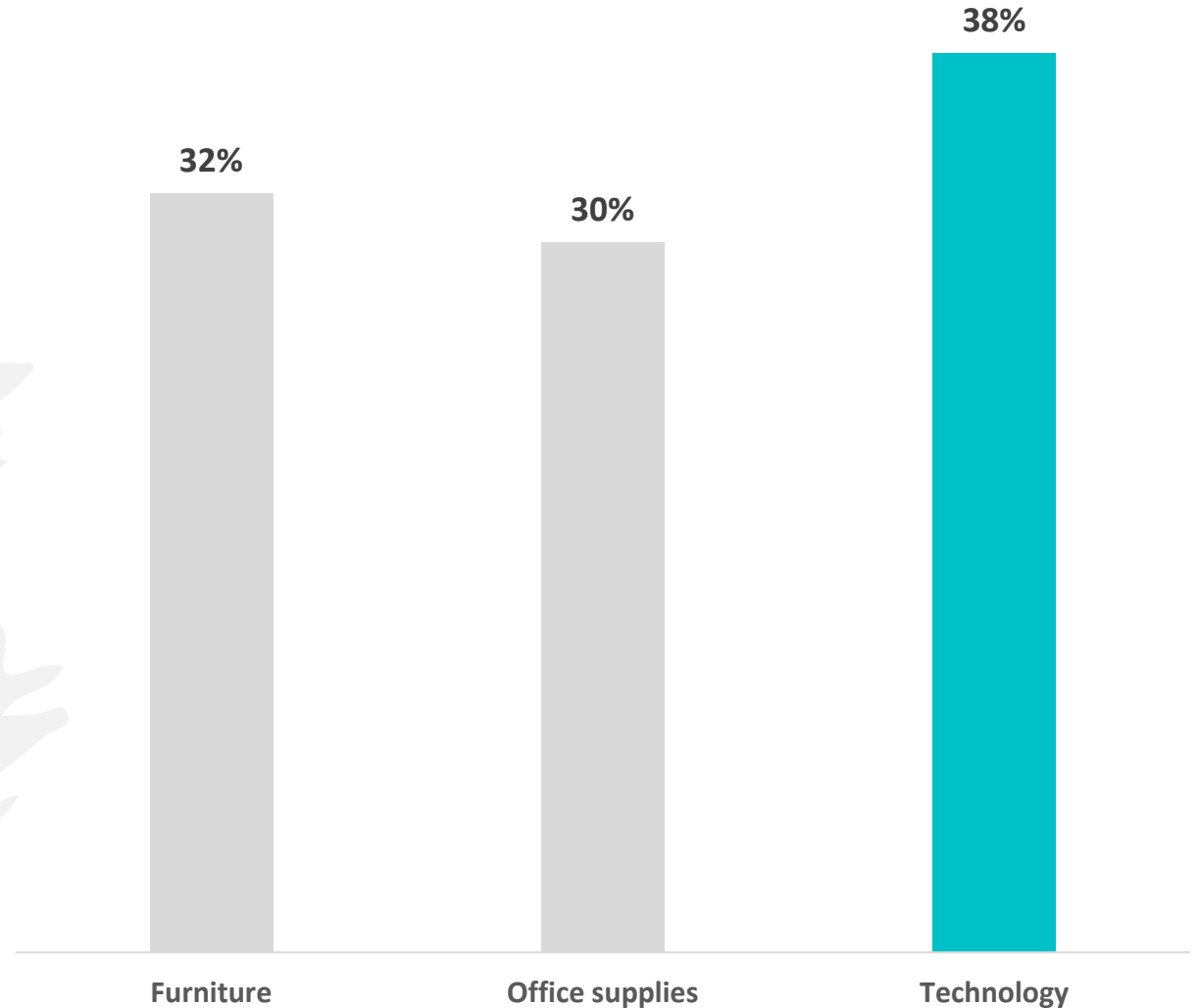
% of orders made in each product category



Product Category

- Have taken loss of revenue from returns into account.
- The money maker is **technology** despite selling 3x less than office supplies.
- Maybe because higher profit margins or lower number of returns?

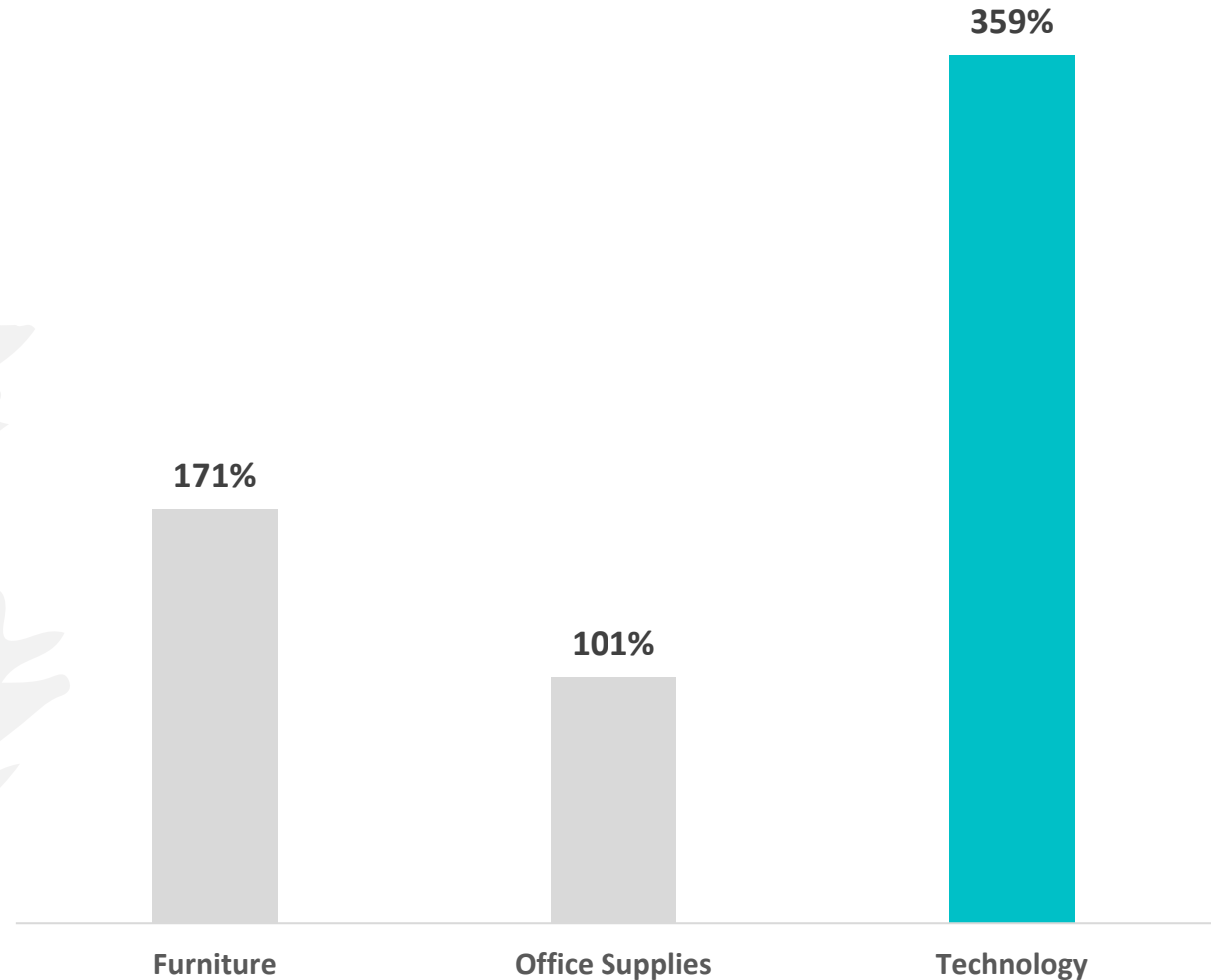
Revenue for each product category



Profit Margins

- Technology products are by far most profitable category.
- Office supplies are the least profitable.

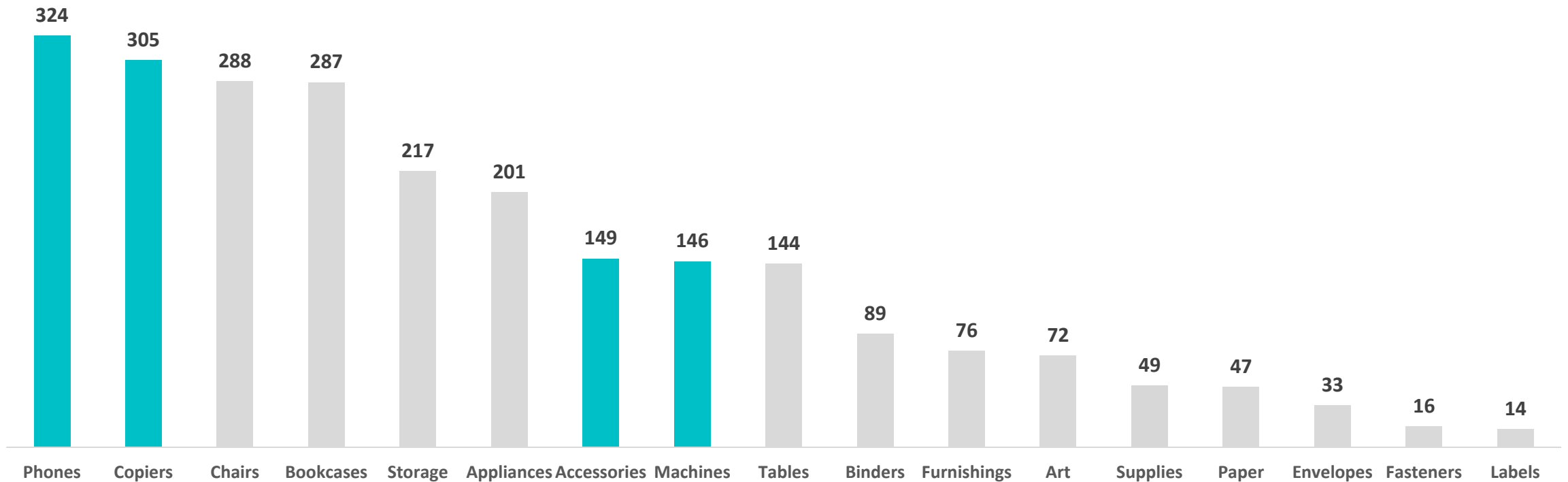
Profit margin for each product category (avg)



Product Subcategory

- All **technology** products are ranked high in terms of revenue contribution.

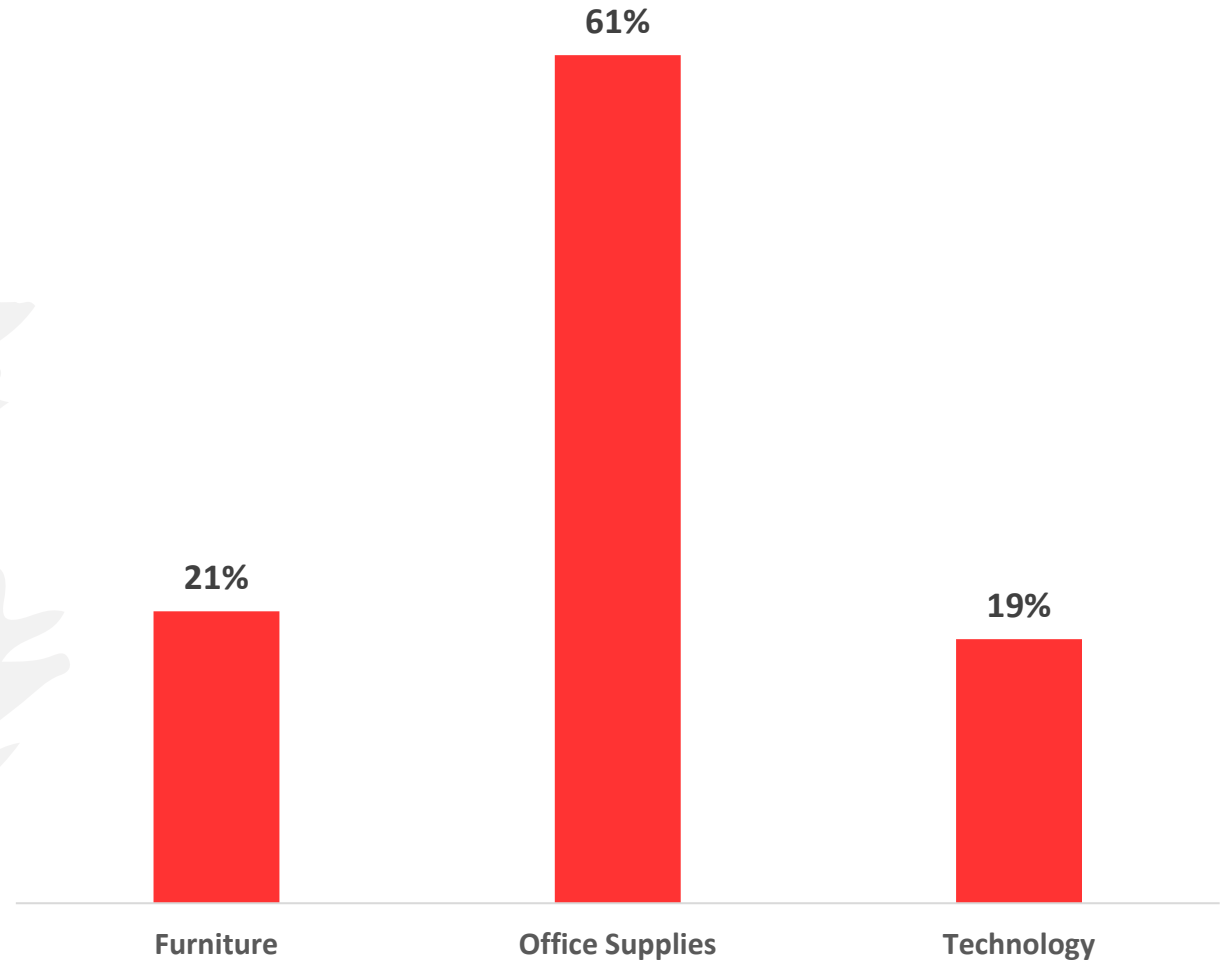
Revenue from each product subcategory (\$100,000s)



Returned Products

- Much of our returns are office supplies.
- Explains why despite the most orders, pulls in least revenue
- Technology has the lowest returns.
 - Answers the question of why it leads in revenue.

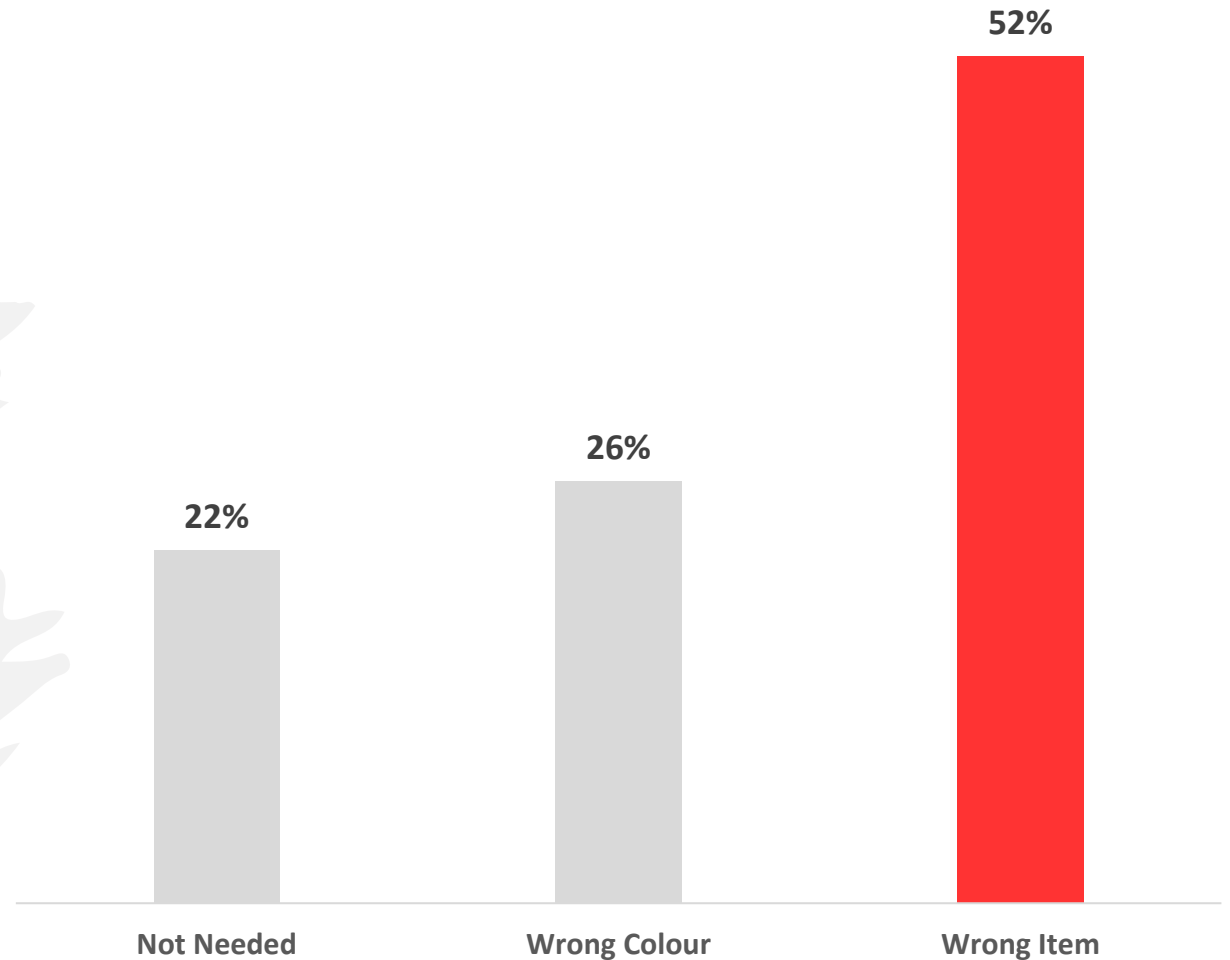
Returns for each product category



Returned Reasons

- Most common reason is the **wrong item** being sent.
- Suggests problems in supply chain.
- Maybe a certain product skewing results?

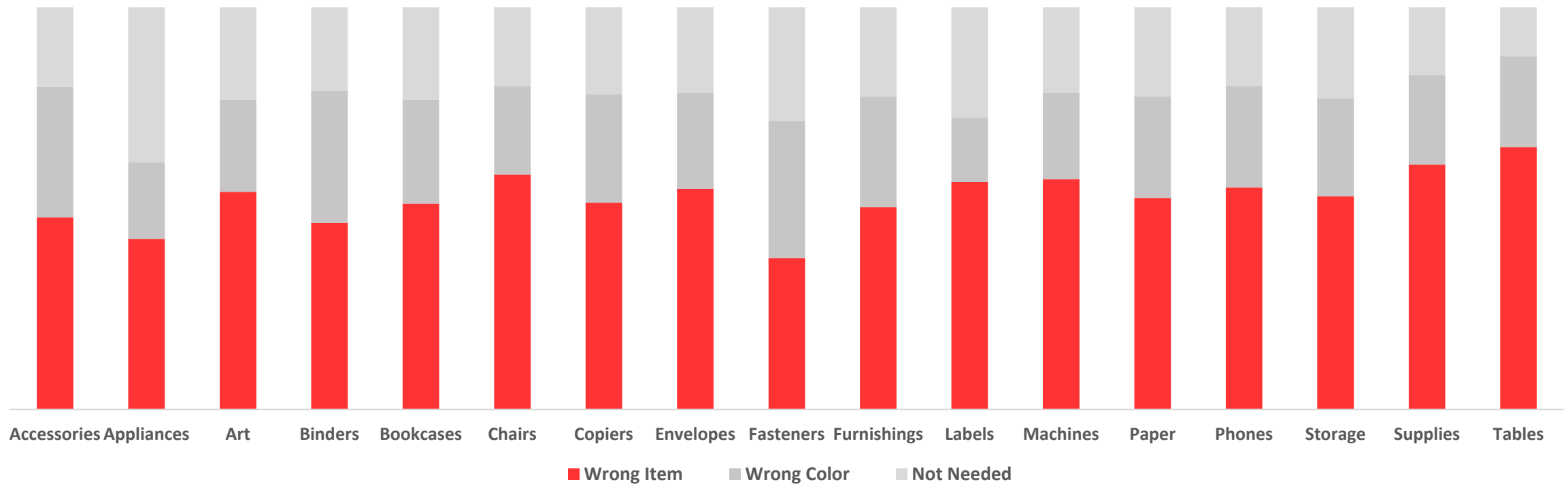
Explanation of returns



Return Reasons in Subcategories

- Not skewed, every single product subcategory has 'Wrong Item' as the main reason returned

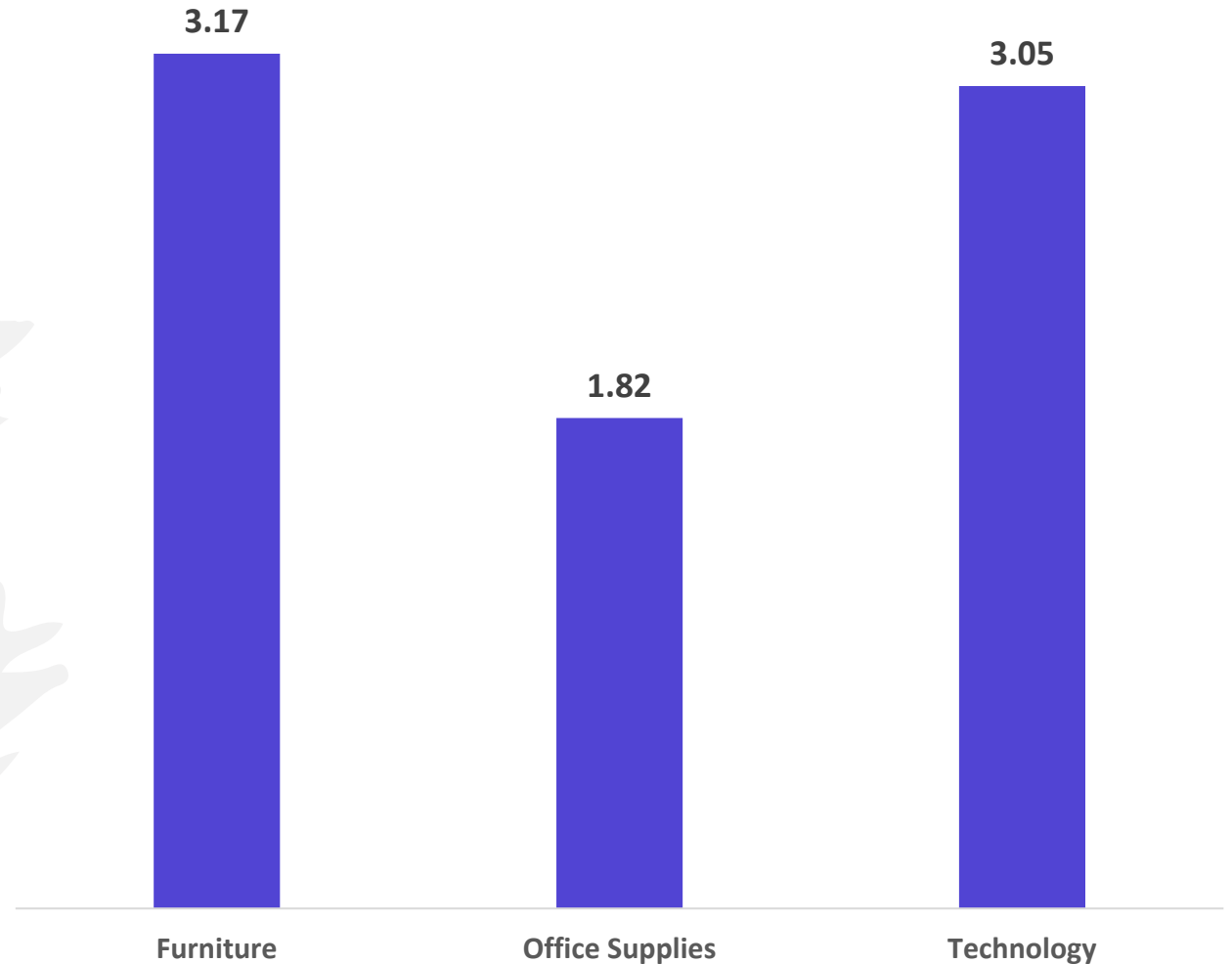
Return reasons for each product subcategory (%)



What if we improved?

- Difficult to think of ways to reduce returns that are 'Not Needed'
- If we manage to fix the other reasons, we can save a substantial amount.
- Technology and furniture have low returns but have much higher potential gains compared to office supplies.
 - Explains why we lost double the expected amount 5% -> 9%

Potential revenue to be saved (\$millions)



Recommendations

- Focus on technology, despite having the least return rate, we can extract lots of lost revenue if we improved.
 - More advertising on tech products i.e. phones, copiers
 - More frequent discounts.
- Find out what's causing the errors in 'Wrong Item/Colour'
 - Train staff to verify each order is correct before shipping.
 - Fix/update electronic ordering system.
 - Reduce number of items for sale in office supplies.