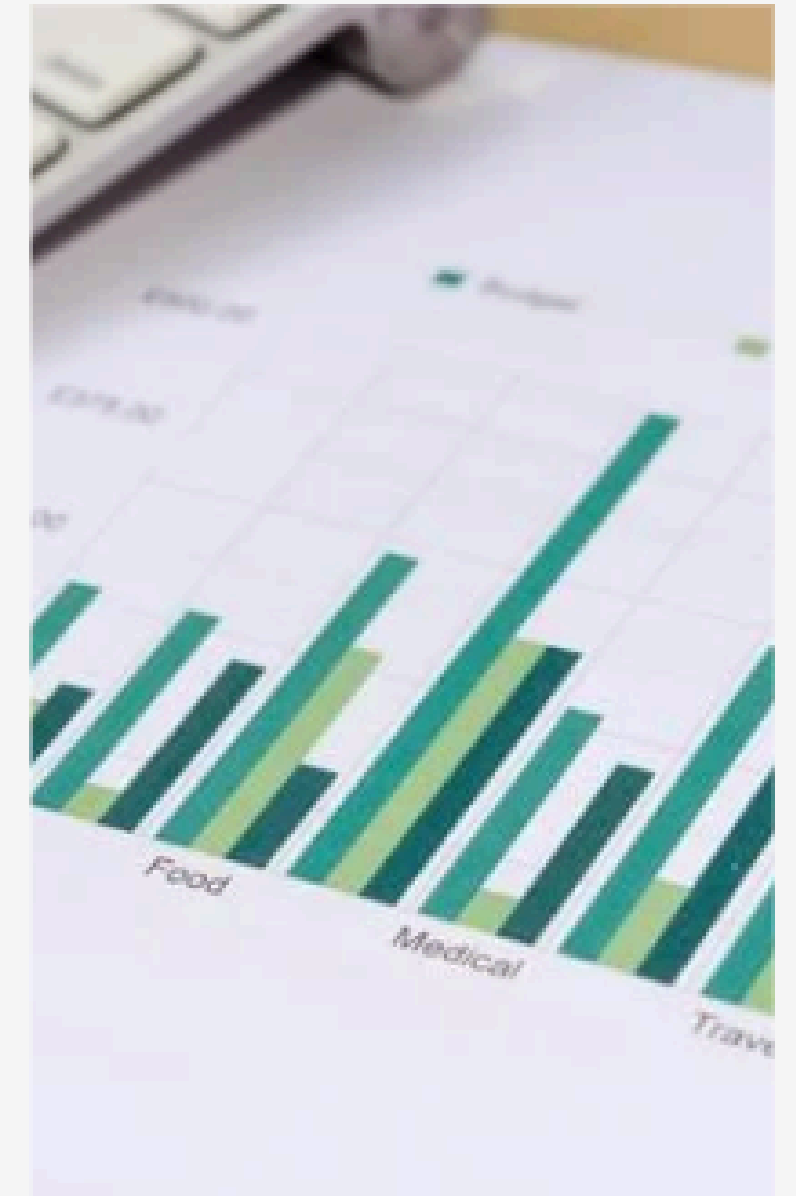


E-Commerce Return Rate Reduction



Agenda

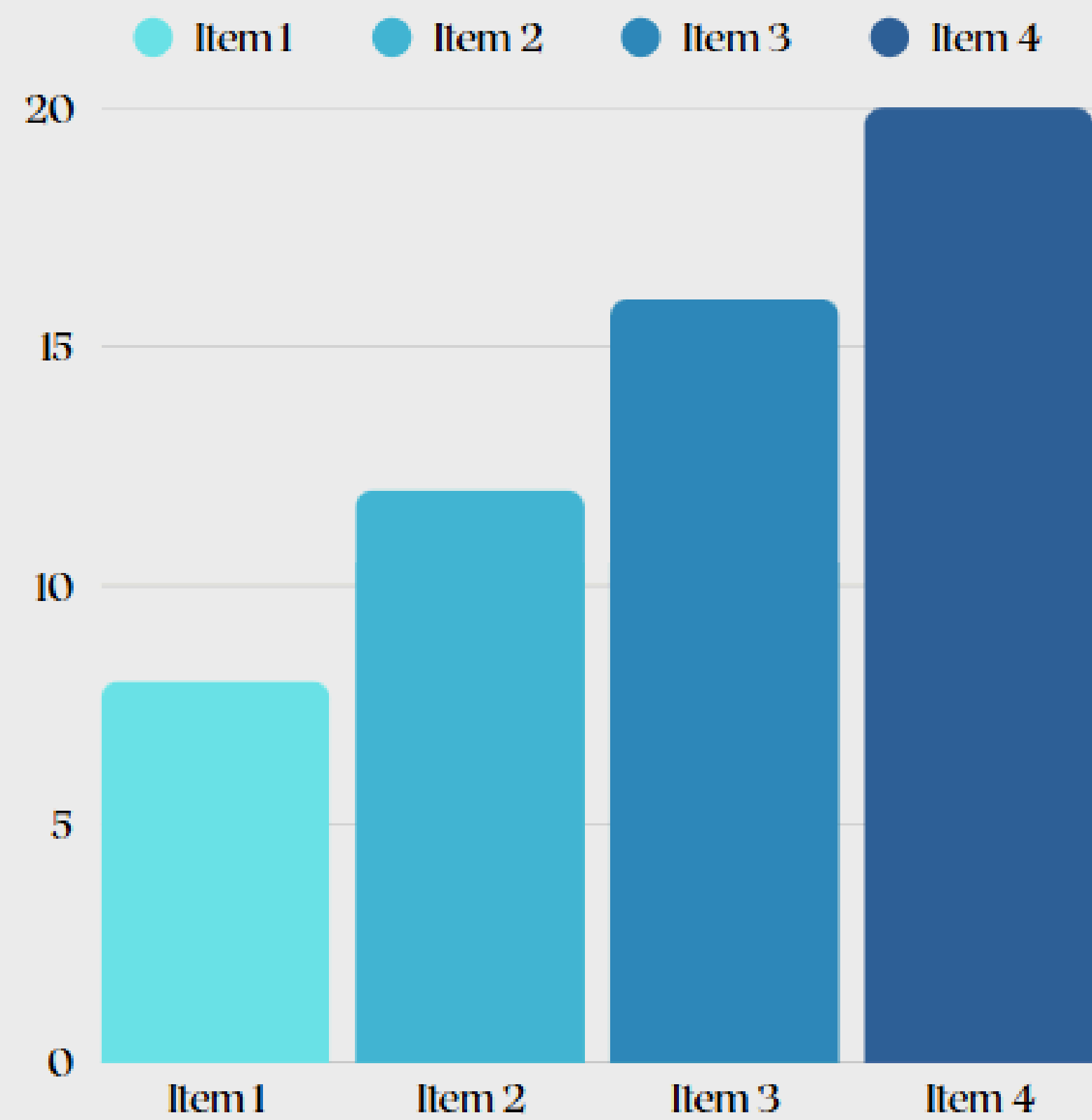
- To analyze return patterns in ecommerce sales data.
- To identify key factors causing high return rates.
- To suggest actionable strategies that can reduce returns, improve customer satisfaction, and increase profitability.



Introduction

In today's highly competitive ecommerce environment, customer returns significantly impact both profit margins and brand trust.

This analysis focuses on understanding the patterns, causes, and trends behind product returns. By leveraging historical order data and applying machine learning techniques, we aim to discover critical insights and propose data-driven solutions to reduce return rates, optimize operations, and enhance the overall customer experience.



1. High Return Rate in Clothing and Electronics

Insight:

Clothing (52.45%) and Electronics (50.93%) categories have the highest return percentages.

Resolution Idea:

- Provide detailed size guides, virtual try-ons, and augmented reality previews for clothing.
- For electronics, offer better product descriptions, clear specifications, and video tutorials.

2. Many Returns Due to "Changed Mind" and "Wrong Item"

Insight: Common reasons for returns are customers changing their mind or receiving the wrong item.

Resolution Idea:

- Introduce order confirmation popups before purchase finalization.
- Improve order fulfillment accuracy by investing in barcode scanning and AI quality checks in warehouses.



3. Return Rates Are Influenced by Payment Methods

Insight: Returns differ across payment methods — PayPal, Gift Cards, and Debit Cards could have varying return behaviors (noted from dataset columns).

Resolution Idea:

- Reward systems (e.g., cashback) for non-returned items when purchased via certain payment methods.
- Penalty (like restocking fee) if high return behavior is detected in some payment categories (carefully designed, though).

4. Heavy Discounts May Lead to Higher Returns

Insight: Many returned orders have significant discounts applied (discount data available, average discount ~25%).

Resolution Idea:

- Reassess discount policies — offer discounts on high-quality reviews instead of just for sales.
- Use targeted discounts based on customer loyalty or past behavior rather than blanket discounts.

5. Faster Shipping Methods (e.g., Next-Day) See More Returns

Insight: Users who opt for Next-Day and Express shipping might return more — possibly due to impulse buying.

Resolution Idea:

- Offer free returns only for standard delivery, charging a small return fee for express orders.
- Encourage thoughtful purchasing by highlighting "Think Before You Buy" messages for fast delivery options.

Thank you!