

# Business Report on Online Bookstore Sales & Product Analysis



## Executive Summary

The online bookstore dataset was analyzed to understand book pricing trends, customer ratings, stock availability and marketing opportunities. The analysis provides insights into the top-performing books, underperforming books, and potential candidates for promotions and marketing campaigns.

Key findings:

- Average book price: **\$35.07**
- Books in stock: **100%**
- Highest-rated books: **5/5**
- Top promotion candidates: **High-priced but low-rated books**
- Trending books for marketing: **High-rated books currently in stock**

## Business Problem

The bookstore management lacked clear visibility into:

1. Which books are popular or unpopular.
2. Which books are expensive or cheap.
3. Which books are in stock or out of stock.
4. Which books should be promoted or marketed.

This analysis addresses these gaps and provides actionable recommendations.

## Data Source & Description

**Dataset:** books\_dataset.csv

### Key fields:

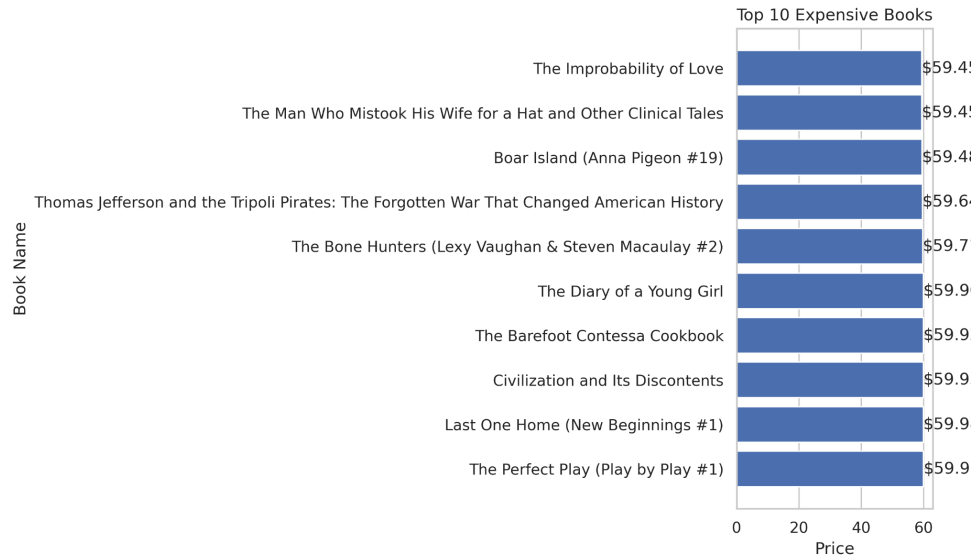
Column Name	Description
product_id	Unique identifier for each book
product_name	Name of the book
price	Price of the book in USD
rating	Customer rating (One, Two, Three, Four, Five)
availability	Stock status (In stock / Out of stock)
product_url	Link to the book's page on the website

### Key Performance Indicators (KPIs)

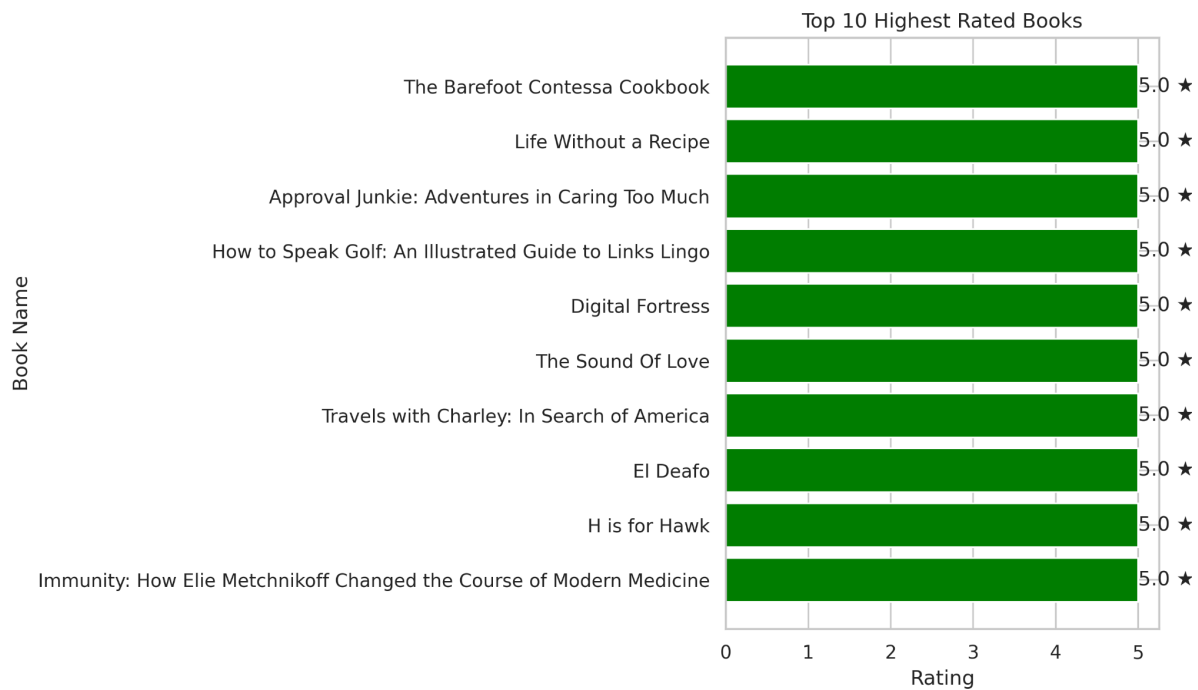
1. **Average Book Price – \$35.07**
2. **Stock Availability Ratio – 100.00%**
3. **Rating Distribution –**



#### 4. Top 10 Expensive Books



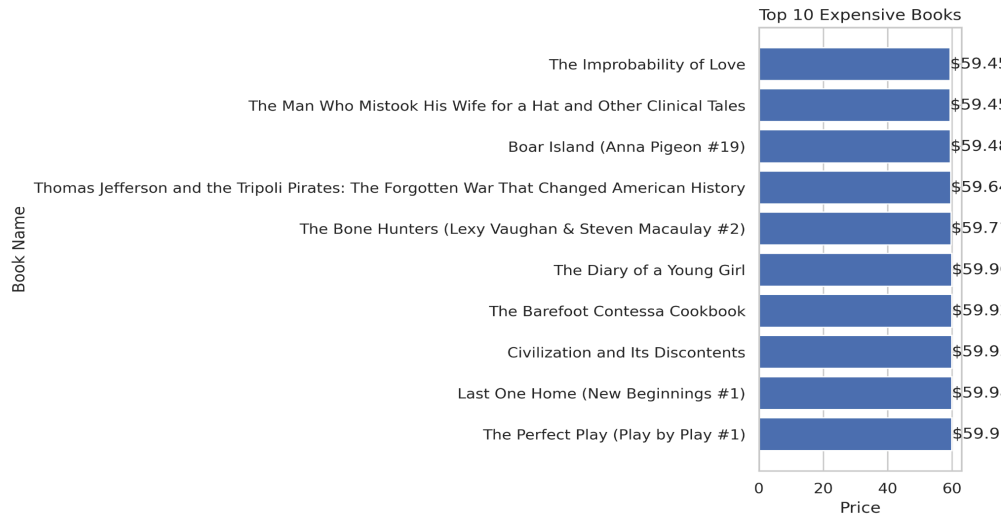
#### 5. Top 10 Highly Rated Books – Identify books with the best customer ratings.



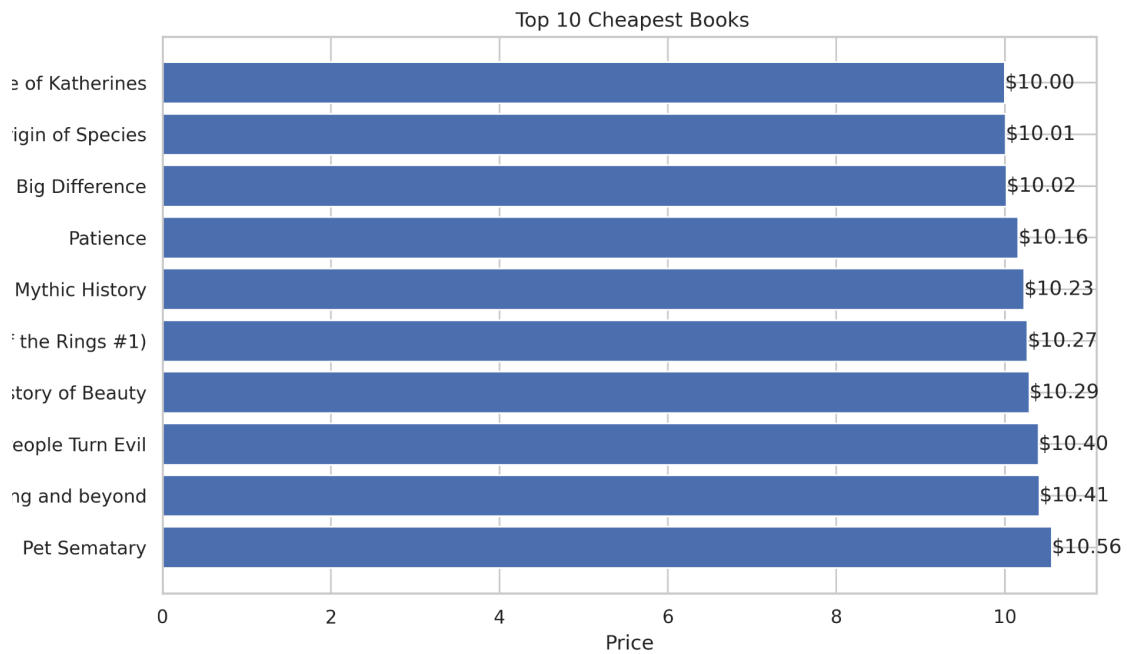
# Business Questions

## Pricing & Sales

1. Which books are the most expensive and which are the cheapest?



This graph shows the most top expensive books.



And this shows the top most cheapest books.

2. What is the average price of all books?

Ans: The average price of all books is **\$35.07**.

3. Is there a pattern between book price and customer rating?

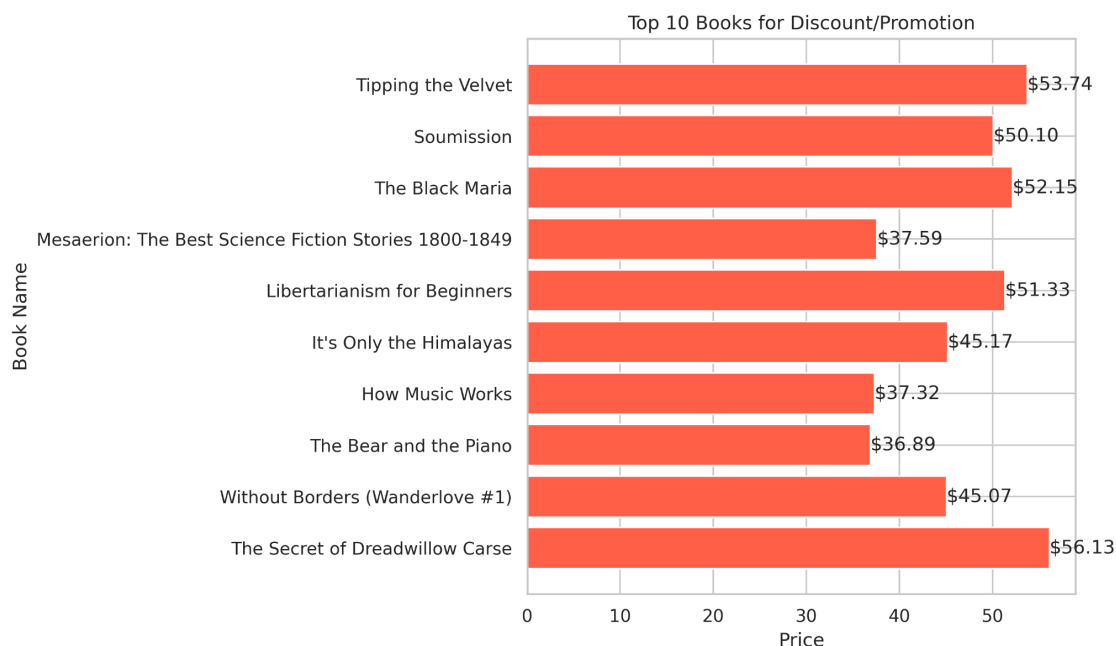


There is no clear relationship between book price and customer rating. Books across all price ranges (\$10–\$60) receive similar ratings (1 to 5 stars). Higher-priced books are not consistently rated better.

### Recommendation:

Focus on quality improvement, customer experience and targeted marketing rather than pricing changes to improve ratings.

4. Which books could be candidates for discount or promotion?



High-priced books are ideal for promotions because even small discounts create strong perceived value, helping increase conversion rates and sales.

These books have higher prices, making them strong candidates for discounts to boost sales volume and customer interest:

1. **The Secret of Dreadwillow Carse** – \$56.13
2. **Tipping the Velvet** – \$53.74
3. **The Black Maria** – \$52.15
4. **Libertarianism for Beginners** – \$51.33
5. **Soumission** – \$50.10

**Secondary promotion candidates (mid–high price):**

- **It's Only the Himalayas** – \$45.17
- **Without Borders (Wanderlove #1)** – \$45.07

**Recommendation**

- Apply 10–20% discounts on the top 5 highest-priced books.
- Use featured placement or bundle offers for mid-priced titles.
- Monitor post-discount performance (sales uplift vs. margin impact).

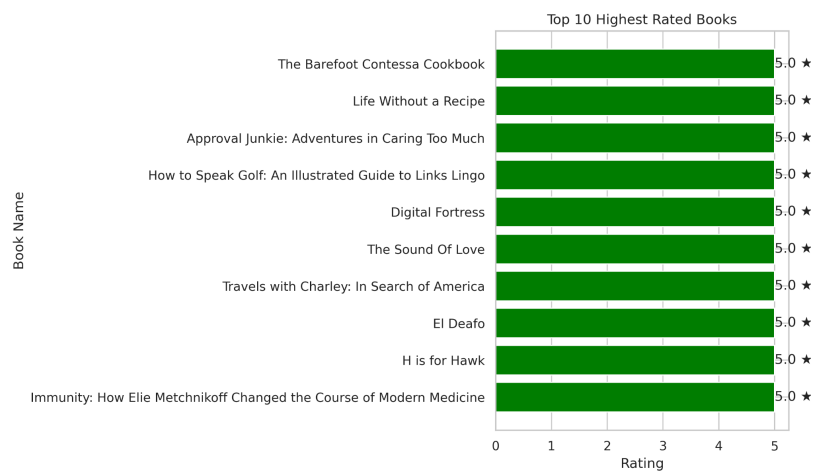
## Customer Ratings

5. How many books fall under each rating category (One to Five)?



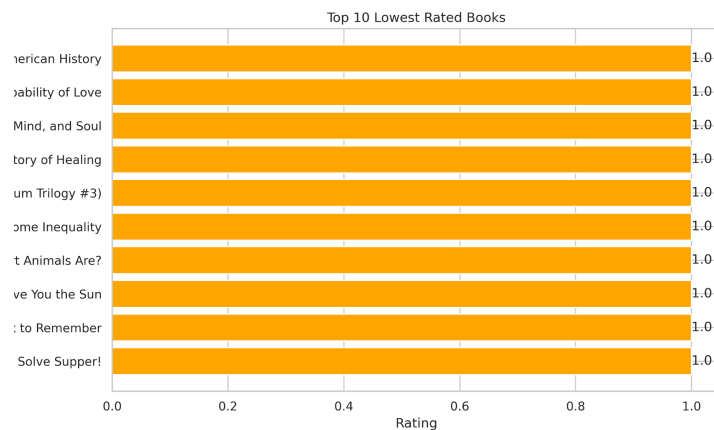
In above the number of books which are fallen under each rating category is illustrated. Here, the majority of books receives 1 star rating and than 3-star books being the second most common.

6. Which books have the highest ratings?



These books have the highest rating.

## 7. Which books have the lowest ratings?

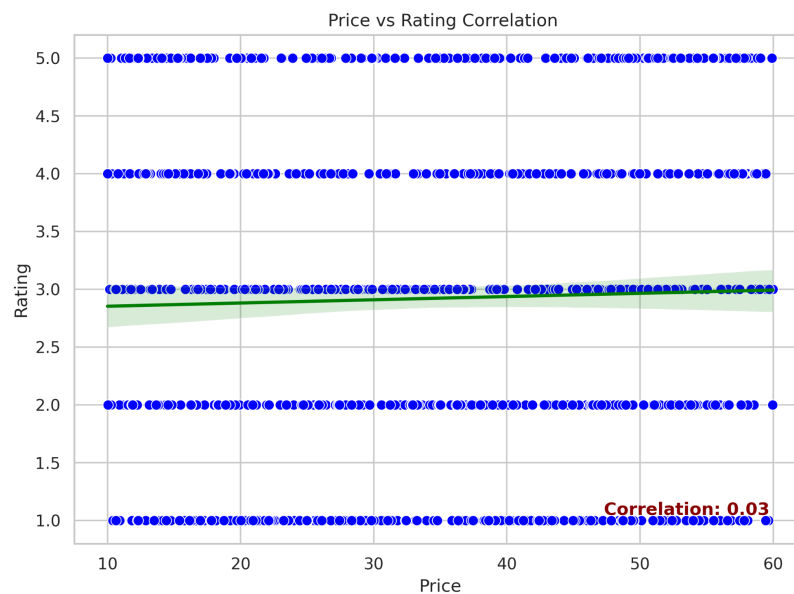


These books have the lowest rating. Top-rated (5) books drive customer trust and should be amplified while low-rated (1) books require corrective action or exit strategies.

### Recommendation:

- Promote and highlight 5star books to maximize visibility and revenue.
- Review or reposition 1 star books, consider discounts, improved descriptions or removal if performance does not improve.

## 8. Are higher-priced books rated better than lower-priced ones?



No — higher-priced books are not rated better than lower-priced ones.



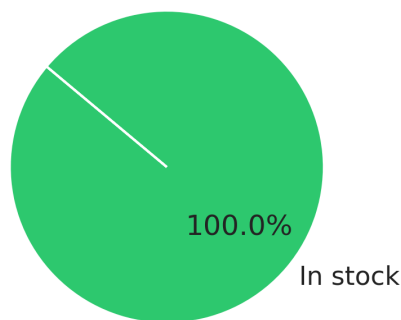
## Recommendation:

Avoid assuming that higher prices lead to better customer perception. Instead, focus on content quality, accurate descriptions, reader targeting and value communication to improve ratings across all price segments.

## Stock & Availability

9. How many books are currently in stock vs out of stock?

### Stock Availability

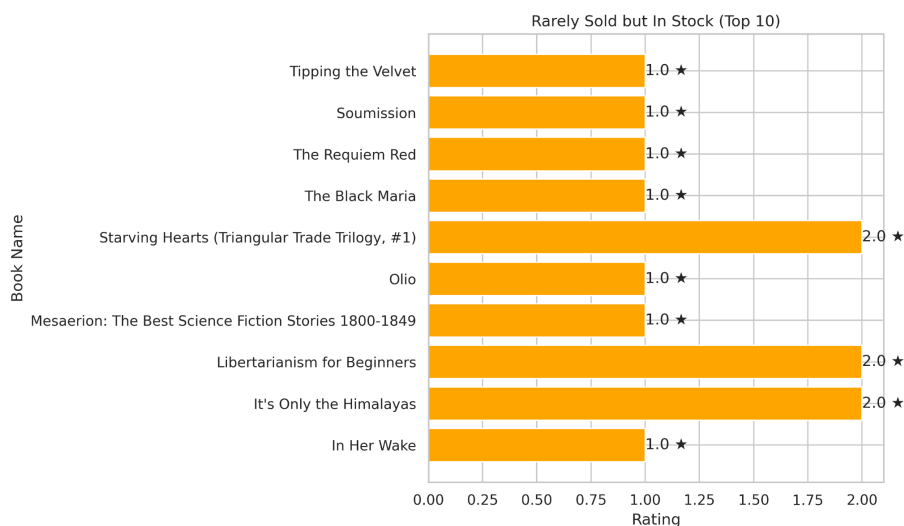


In this dataset, 100% high-rated books are in stock.

10. Which popular or high-rated books are running out of stock?

Ans: In this dataset, there is no high-rated books which is just out of stock.

11. Are there books that are rarely sold but always in stock?



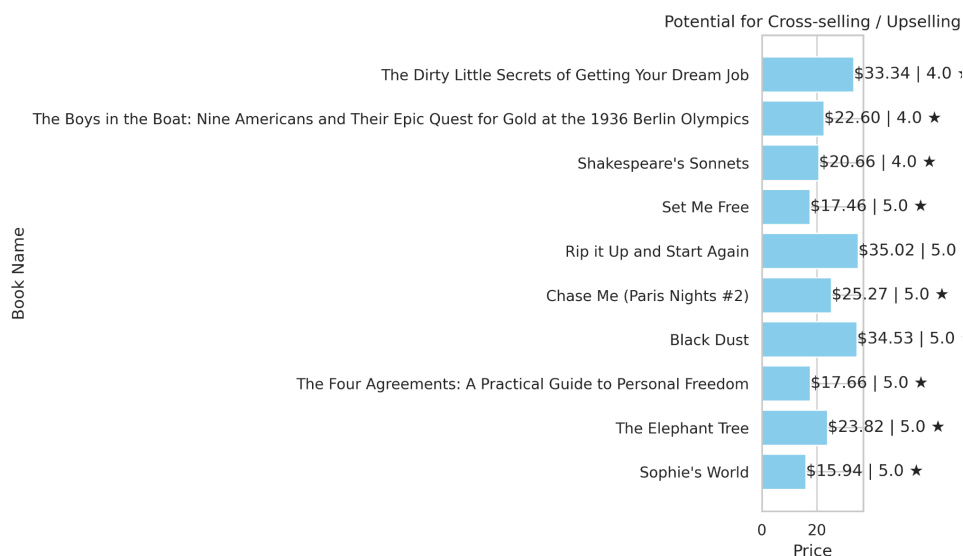
Yes, there are books that are rarely sold but remain consistently in stock. These books show low sales frequency while maintaining high availability, meaning they are not going out of stock despite being listed for long periods. This suggests weak customer demand rather than supply issues.

### Recommendation:

Apply targeted discounts, bundling or promotional placement to stimulate demand. If performance remains low, consider reducing stock levels or de-listing to optimize inventory turnover.

## Product & Marketing Insights

12. Which books have the most potential for cross-selling or upselling?

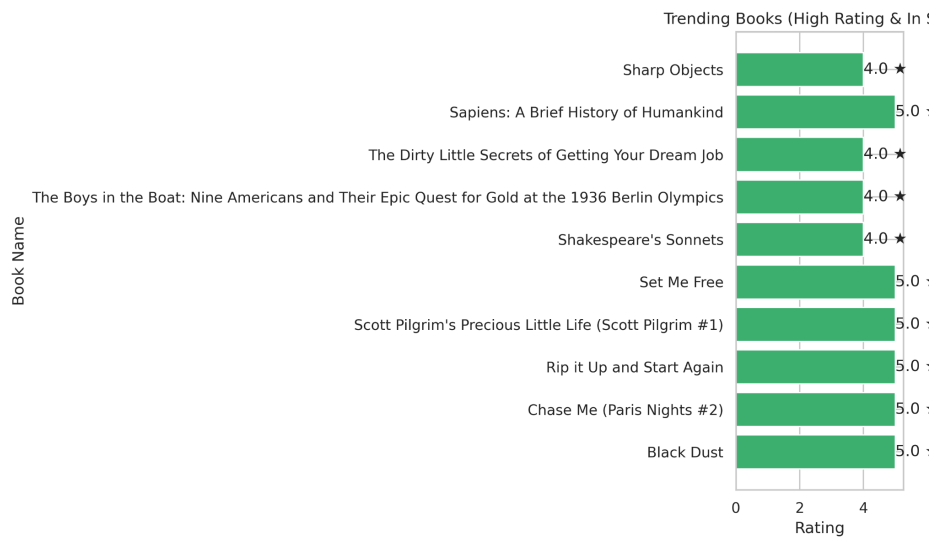


Books with high customer ratings (4–5 star) have the strongest potential for cross-selling and upselling. Highly rated books indicate strong customer trust and satisfaction, making readers more willing to purchase related or premium items. When these books are not the cheapest options, they signal perceived value, which supports upsell strategies.

### Recommendation:

- Target the 5.0 star books for all cross-sell and upsell initiatives
- For upselling, focus on: *Rip it Up and Start Again*, *Black Dust*
- For cross-selling, focus on: *Sophie's World*, *Set Me Free*, *The Four Agreements*
- Create bundle offers combining one premium 5.0 star book with one affordable 5.0 star book

### 13. Can we identify books that are trending based on ratings and availability?



Seven perfectly rated (5.0 star ) books — including Sapiens, Sharp Objects and Scott Pilgrim — represent the strongest trending opportunities based on both customer satisfaction and availability.

#### Recommendation:

- Immediate marketing focus on all 5.0 star books. They are most likely to trend and drive organic growth
- Create a "Top Rated & In Stock" category on your website or storefront
- For the 5.0 star books:
  - Feature in email campaigns
  - Highlight as "Customer Favorites"
  - Use in social media promotions
- For 4.0 star books:
  - Bundle with 5.0 star titles
  - Monitor for rating improvement before major campaign investment
- Verify the Sharp Objects rating discrepancy (5.0 vs 3.6 star) to ensure accurate reporting

#### 14. Which books are underperforming despite being expensive?

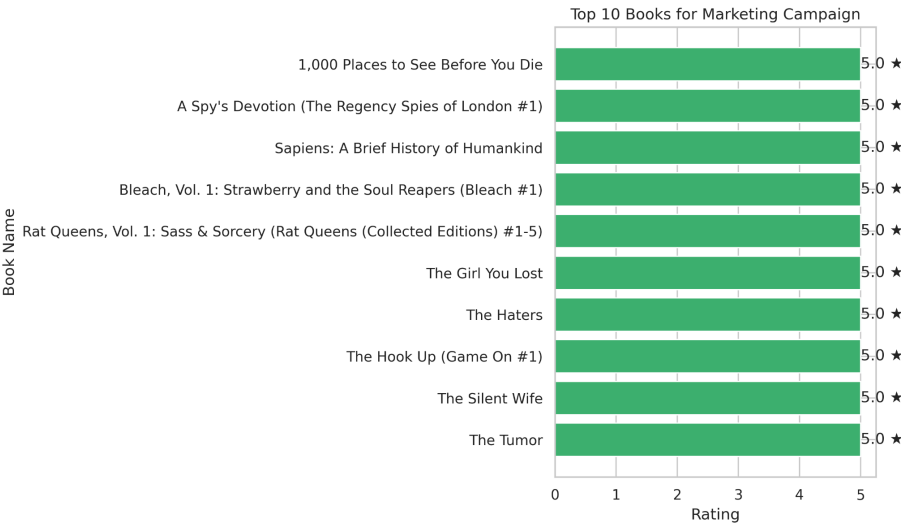


Ten expensive books (\$37–\$56) are critically underperforming with 1.0–2.0 star ratings, representing a significant risk to customer trust and requiring immediate investigation and pricing strategy revision.

#### Recommendation:

1. Investigate root causes for each 1.0 star book:
  - Review customer comments for common complaints
  - Check for printing errors, misleading descriptions, or delivery issues
  - Verify if these are legitimate ratings or potential review bombing
2. Consider temporary price reductions to match perceived value:
  - Premium pricing is clearly not justified by current ratings
  - Lower prices may attract new reviews and improve average rating

15. Which books could be highlighted in marketing campaigns?



Ten rated (5.0 star) books across eight genres — including Sapiens, Bleach Vol. 1 and 1,000 Places to See Before You Die — offer versatile, high-impact marketing opportunities with proven customer appeal.