

Amazon Sales Performance

Objective:

Analyze Amazon product data to uncover top-performing categories, understand customer engagement via ratings and evaluate the impact of discount strategies on product profitability and sales performance.

Data Source:

- **Source:** Kaggle
- **Fields:** Product ID, Category, Subcategory, Discounted Price, Actual Price, Discount, Rating, Rating Count.

Data Cleaning Steps:

- Split combined column
- Renamed inconsistent column headers for clarity
- Replaced null Values
- Standardized currency fields (e.g., â,¹ 199 → 199)
- Removed irrelevant columns
- Converted data types

Tools Used:

- **Excel:** ETL preprocess
- **Power BI:** Dashboard creation, DAX measures, visuals

Key Metrics:

- **Total Products:** 1351
- **Average Rating:** 4.0
- **Total Reviews:** 5841
- **Average Discount %:** 48%

Key Insights:

Electronics is the Leading Category

- Offers the **highest average discount (51%)** and receives the **most customer engagement** with **high rating**, indicating it's a key revenue and attention driver.
- High discounting likely supports sales velocity without sacrificing customer satisfaction.

Top 3 Performing Categories: Electronics, Home & Kitchen, and Computers & Accessories

- These categories show a **balanced mix of high discounts, strong ratings, and high review volumes**, making them ideal for ongoing promotions and inventory expansion.

Aggressive Discount Strategy Across Key Segments

- **Computers & Accessories (54%)** and **Home & Kitchen (40%)** also apply deep discounts, revealing a competitive pricing approach across categories.
- Despite these markdowns, customer perception remains positive — signaling a **strong value proposition**.

Profitability is Concentrated in Core Categories

- Treemap analysis confirms that **Home & Kitchen, Electronics, and Computers & Accessories** contribute the most to **estimated profit**, justifying strategic investments in these areas.

Discounts Do Not Compromise Perceived Quality

- Ratings remain **consistently high (avg. 4.0)** across top categories, even with heavy discounts — a strong indicator that **value-driven pricing** is effective and sustainable.

Business Recommendations:

- **Invest more in Electronics, Home & Kitchen, and Computers & Accessories** — they drive the highest profit and engagement.
- **Continue strategic discounting** in top categories .
- **Highlight top-performing products** (high discount + high rating) in promotional banners and spotlight deals to boost conversions.
- **Use pricing gap analysis (Actual vs Discounted Price) to fine-tune pricing models for sustained profitability.**
- **Prioritize stock** and marketing investments in categories with consistent performance across **discount, rating, and profit** metrics.