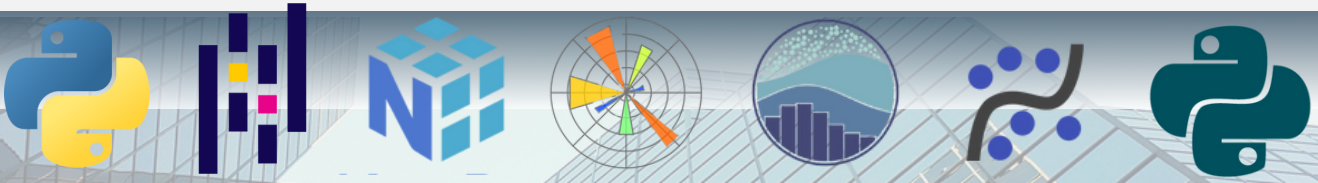# AMAZON SALES
ANALYSIS

Prepared by

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Importance

In today's competitive e-commerce space, discounts are powerful but don't always add value. Understanding which products benefit from discounts and which do not helps Amazon refine pricing, improve customer satisfaction, and protect its brand.

Tools used

Background & Goals

Amazon, as one of the biggest online marketplaces, offers countless products with regular discounts and promotions. However, even with these deals, higher discounts don't always lead to happier customers. In fact, some heavily discounted products still receive low ratings, raising important questions about how customers perceive product value, quality, and what actually drives their buying decisions.

At the same time, Amazon is looking for ways to fine-tune its discount strategies — especially for high-priced products — while making sure customers are happy with their purchases. They also want to better understand which product categories gain the most from discounts and how customer feedback can help shape smarter pricing decisions and enhance the overall shopping experience.

Executive Summary

This report analyses the effectiveness of Amazon's current discount strategies, customer ratings, and product feedback across multiple categories. For analysis purposes, we assume that each customer who purchases a product leaves a rating, making 'Rating count' equivalent to 'Units sold'. Key findings reveal that higher discounts are often applied to lower-priced products, yet these discounts have limited impact on driving higher sales volumes or improving customer satisfaction. In fact, excessive discounts on high-ticket items like electronics may erode both revenue and perceived product value.

The analysis also highlights that quality, product performance, and packaging issues are key drivers of low ratings, indicating that customer satisfaction is shaped more by product experience than price reductions. Moving forward, Amazon can optimise its discounting approach and enhance product quality controls to improve both revenue performance and customer satisfaction.

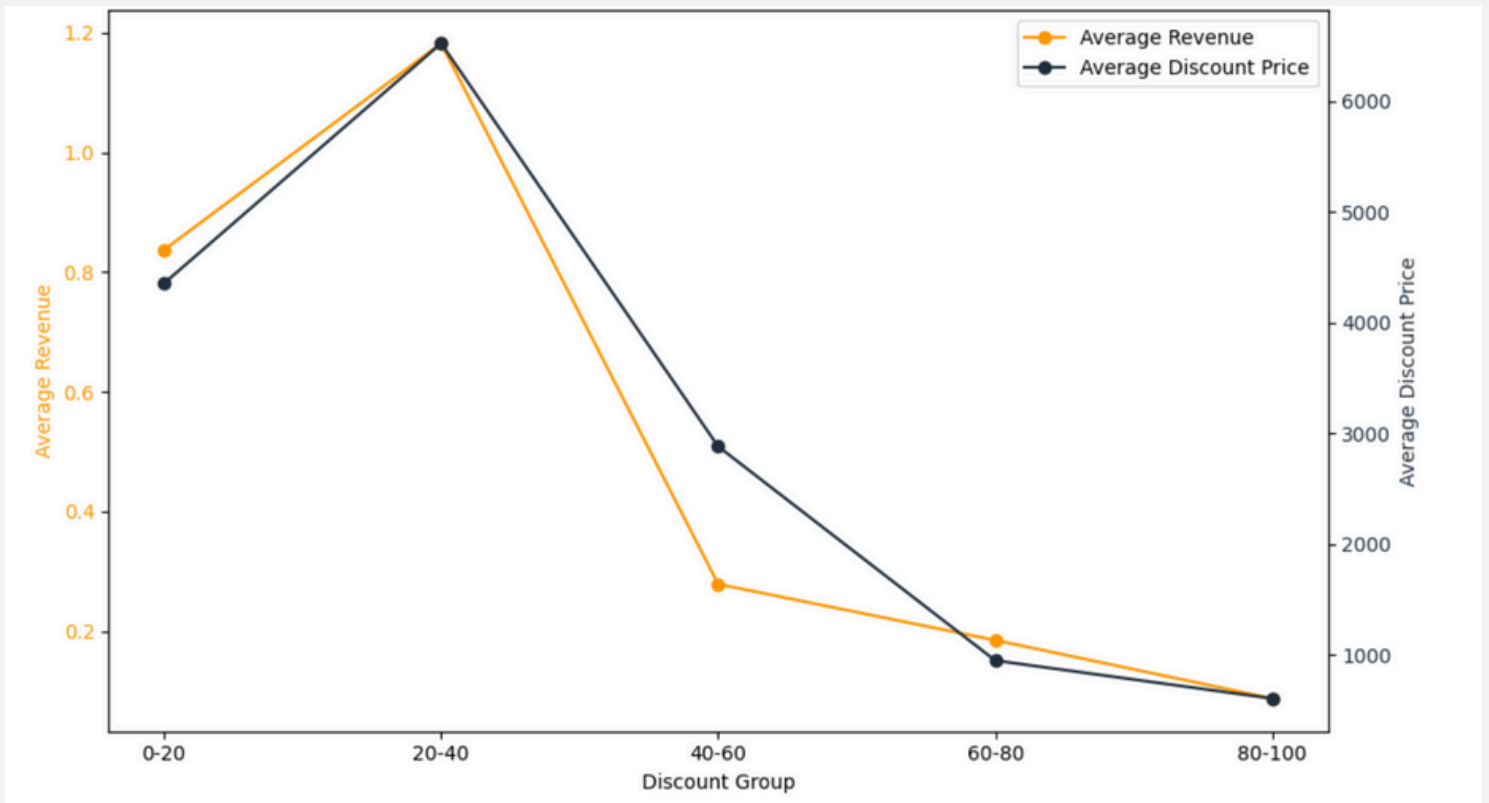# Analysis

1. Discount Effectiveness

Figure 1: *Average Revenue & Average Discount Amount by Discount Groups*

⫸ **20% - 40%** discounts hit the **"sweet spot"** for balancing revenue and discount attractiveness

⫸ **60% +** discounts are much less effective at driving meaningful revenue

? **Is it because higher discounts lower product prices, which in turn reduces revenue?**

⫸ No, because the average discounted price drops as discounts increase. This means the price difference between the actual price and a 90% discounted product is smaller than that of a product with only a 10% discount. It also indicates that deeper discounts are often used to clear low-demand inventory.
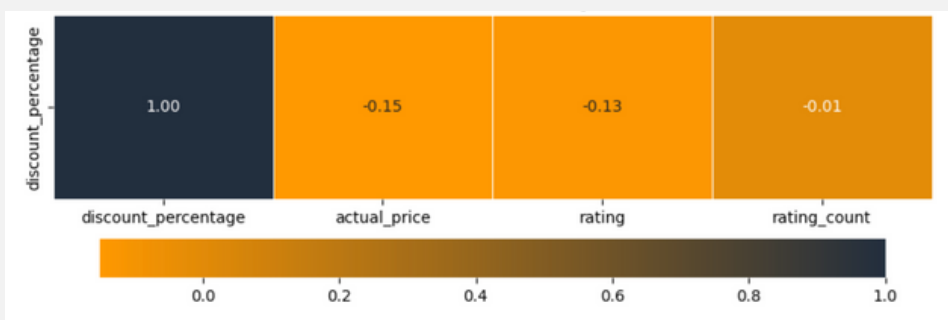

Figure 2: *Correlation between Discount Percenatge and Other Factors*

⊖ **0.15** Weak negative correlation between '**Discount Percentage**' and '**Actual Price**'

⊖ **0.13** Weak negative correlation between '**Discount Percentage**' and '**Rating**'

⊖ **0.01** Near **zero** correlation between '**Discount Percentage**' and '**Rating Count**' (Sale Volumn)

What this means

- This confirms that higher discounts tend to be applied to **lower-priced** products

- Products with **higher discounts** tend to have slightly **lower average ratings.**

- Discounts **do not** directly correlate with how many ratings (or sales) a product receives.

⫸ Amazon's current discount strategy is not fully optimized. Increased marketing efforts and promoting higher-perceived-value products are likely to drive better results than relying on discounts alone.

2. Customer Ratings

Category	Price - Rating Correlation	Interpretation
Electronics	0.208	Moderate Positive
Home&Kitchen	0.218	Moderate Positive
Computers & Accessories	0.08	Weak Positive
Office Products	0.08	Weak Positive

Figure 3: *Correlation Between Price and Customer Ratings Across Categories*

Higher-priced products tend to receive slightly **better ratings**

This reinforces why **higher discounts** tend to **lower ratings**, suggests that customers may associate **higher prices with better quality**

The weak correlations in **Computers & Accessories** and **Office Products** indicate that factors

beyond price, such as **product quality**, **functionality**, **brand reputation**, and **customer service**, likely play a larger role in shaping customer satisfaction.

3. Category-Specific Insights:

**Discounts have** limited impact **on high tickets products**

- Electronics contributes the most to the company's revenue
- While other categories see their revenue roughly double on average, Electronics' revenue slightly decreases as discounts are applied
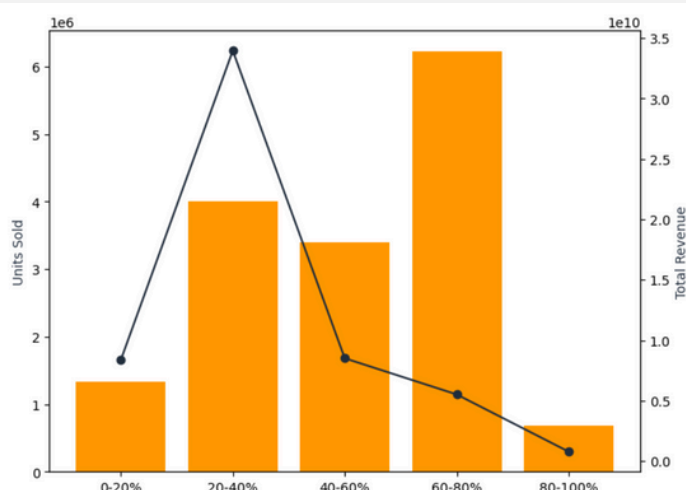
What this mean

- Discounts alone may not be the most effective strategy for maximising revenue from high-ticket items.

? Are we over-discounting on Electronics
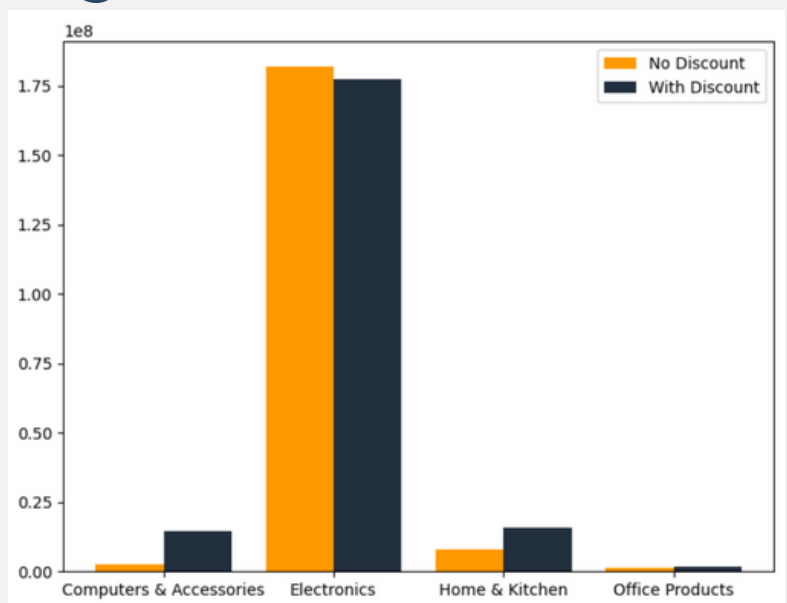
Figure 4: *Average Revenue between No discount & Discount*

Yes, we are over-discounting **electronics device !**
- Beyond 40%, sales volume drops, even most units are sold at discount between 60-80%

Excessive discounts do not attract higher demand
- Electronics products appear to have inelastic demand, meaning customers do not respond strongly to discounts

Customers care more about product features, brand reputation, **and** quality.

Figure 5: Impact of Discounts on Electronics Sales & Revenue
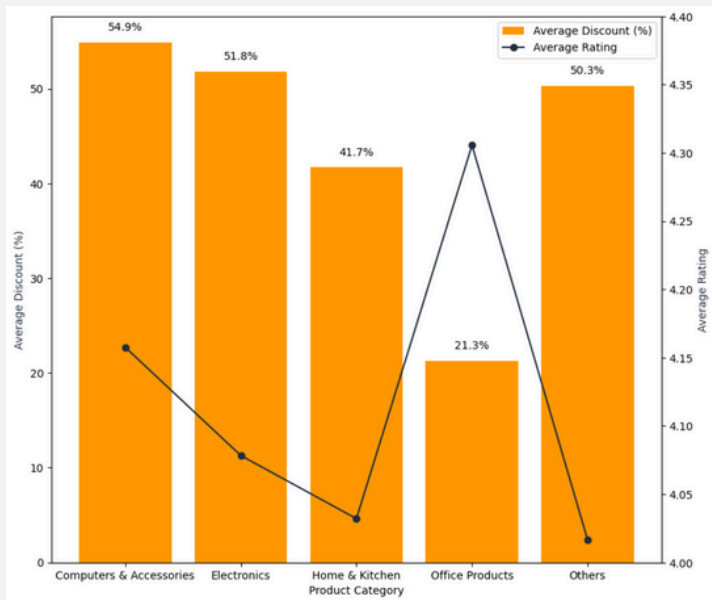
When 'Quality' comes in

- Despite lower discount (21.3%), **Office Products** maintain higher average ratings than most other categories (4.31)

- **Computers & Accessories** has the highest average discount percentage, yet still maintains good rating (4.16)

- **Electronics, Home & Kitchen,** and **Others** have **lower ratings** despite **average discounts** over **40%.**

➤ **Office Products** and **Computers & Accessories** have the highest ratings, despite differing discount trends

➤ **Quality** often takes priority over **discounts** when customers **shop online**

Figure 6: *Discount Levels and Customer Ratings Across Categories*

4. Customer Feedback:

Figure 7: *Common Phrases in Low-Rated Product Reviews*

Product Quality and Value Concerns
- Product defects and quality issues are major concerns, with terms like **"defective product"**, **"waste money"**, **"product not working"** and **"battery life"** appearing frequently.

Packaging and Delivery Concerns
- Packaging problems and delivery-related frustrations are common with phrases like "**sent without box",** and **"without box used piece"**

Functionality and Usability Complaints
- Performance issues are also highlighted through phrases like **"work fine first"**, **"working properly"**, and **"first one working"**, suggesting that products fail shortly after purchase.

Nuanced feedback
- Some customers still acknowledge good side of products: **"good product", "nice product", "work fine",** **"easy install"** even when the overall experience is negative

Conclusion:

⟫ **Discounts alone are ineffective at driving long-term success**

- Higher discounts are most effective in the **20-40%** range, where they balance **price appeal** with **revenue generation**. **Discounts above 60% show diminishing returns**, with **no strong link** between **discount depth** and **higher sales volume or better ratings.**

⟫ **High discounts are associated with lower ratings**

- Products with **higher discounts** tend to receive **lower average ratings**, especially in **Electronics and Home & Kitchen**. This suggests that **deep discounts are frequently applied to lower-quality or less desirable products.**

⟫ **Electronics products show inelastic demand**

- **Despite deep discounts, sales volume and revenue for electronics products do not meaningfully improve.** Customers in this category appear to **prioritise product quality**, **brand reputation**, and **features** over **price reductions.**

⟫ **Customer feedback matters**

- **Product quality issues** still affect revenue and customer trust, with complaints about **defective items**, **poor durability**, and **performance problems**. **Packaging issues**—like damaged boxes and missing parts— also contribute to negative reviews, highlighting the need for **better quality control** and **packaging standards.**

Recommendation

✓ **Refine discount strategy by category**

- Focus discounts in the **20-40%** range, where they generate the **best balance between sales volume and revenue.**
- For high-ticket items like **electronics**, shift from **aggressive discounting** to **value-based promotions**, such as **bundling, financing offers, or extended warranties**.

✓ **Enhance product quality controls**

- **Strengthen** supplier and seller **requirements**, particularly for **Electronics and Home & Kitchen**, to **reduce** the frequency of **defective products**.
- Increase **random product inspections** to ensure products meet stated specifications **before shipping**.

✓ **Leverage verified reviews and quality assurance messaging**

- Highlight highly-rated products with **verified reviews** to increase **customer trust**, especially in categories with **price-sensitive shoppers**.
- Incorporate **"Quality Assured"** badges for products that pass Amazon's enhanced quality checks

✓ **Category-specific marketing and pricing strategies**

- For **Office Products**, emphasise **reliability, durability**, and ease of use in **marketing**.
- For **Electronics**, focus on **performance, brand reputation**, and **feature comparisons,** rather than relying heavily on **price promotions**.