Impact of Discounts on Amazon Sales & Customer Analysis

# PROJECT REPORT

amazon

Impact of Discounts on Amazon Sales & Customer Analysis

Arranged By TRACEY TRAN tramngoctran.work@gmail.com

# **OVERVIEW**



Amazon is a multinational technology company specialising in e-commerce, cloud computing, digital streaming, and artificial intelligence. Founded by Jeff Bezos in 1994, Amazon started as an online bookstore and rapidly expanded into a global marketplace offering a vast array of products, including electronics, fashion, home goods, and more.

Amazon, one of the largest e-commerce platforms, offers a wide range of products with frequent discounts and promotions. Despite providing significant discounts across various categories, data collected suggests that higher discounts do not always result in better customer satisfaction.

Additionally, Amazon wants to optimise its discount strategies for high-ticket items (expensive products) and ensure that customers are satisfied with their purchases. They also need insights into which product categories benefit the most from discounts and how customer feedback can help improve overall sales and shopping experiences.

**EXCUTIVE SUMMARY** 

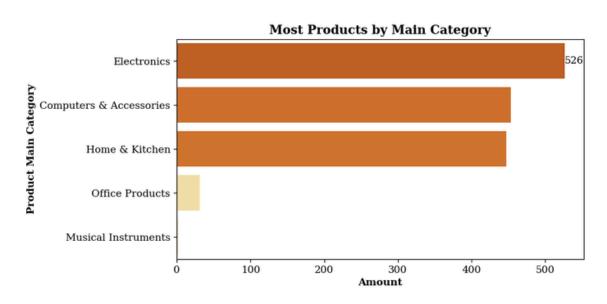
executive summary

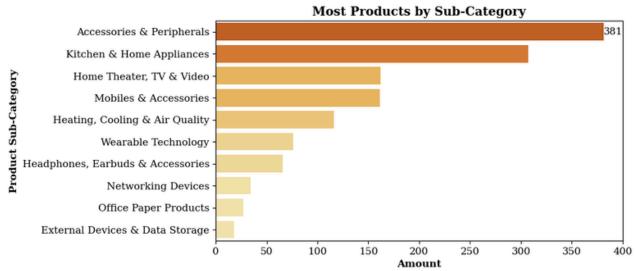


# **COMPANY BACKGROUND**



#### Most Amount of Products by Category





#### **Main Category**

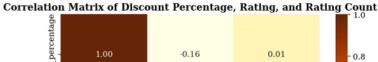
- Electronics has the highest number of products, with 526 products listed. This suggests that the electronics category is the most diverse or widely demanded, followed by Computers & Accessories and Home & Kitchen.
- Meanwhile, Office Products and Musical Instruments have significantly fewer products compared to the top three, implying these categories may be more niche.

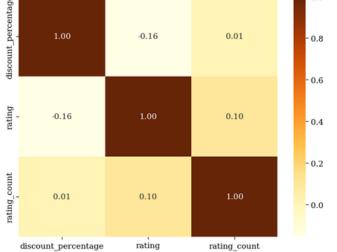
#### **Sub Category**

- Accessories & Peripherals is the dominant sub-category, with the highest product count (381), aligning with the high number of products in the Computers & Accessories category.
- Kitchen & Home Appliances and Home Theater, TV & Video are also significant sub-categories, reflecting the
  popularity of home-related products.
- The others have the fewer listed products, indicating limited variety or lower demand in these areas.

# 1. IMPACT OF DISCOUNT STRATEGY





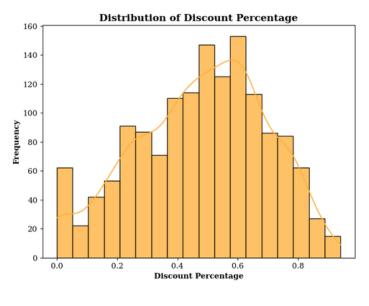


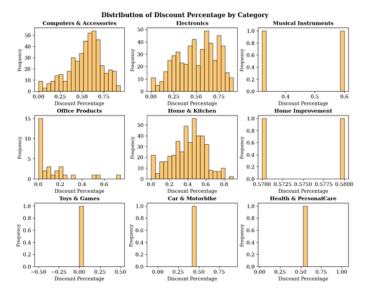
4.5 3.5 3.0 2.0 0.0 0.4 0.6 8.0

Correlation Between Ratings and Discounts

Correlation between discount and sales (rating\_count), between discount and rating are both < 0.5, considered as weak. Hence, there is almost *no correlation* between the factors, including sale, rating and discount

- While the Discount Percentage increase, there is a slight drop in Rating.
- Highest rate (5.0) and lowest rate (2.0) fall in the same discount range (40-60% off).
- · There is no strong trend showing that higher discount would lead to higher rating.





**Majority of Discount** 

However, only Computer & Accessories, Electronics and Home & Kitchen follow the Distribution of Discount Percentage,

Out of the range 40-60%: the frequency seems to drop, although the frequency of 0-10% is not too low, indicating that discount does not have significant impact on sale volumes. The reason possibly dues to concerns about quality or limited availability.

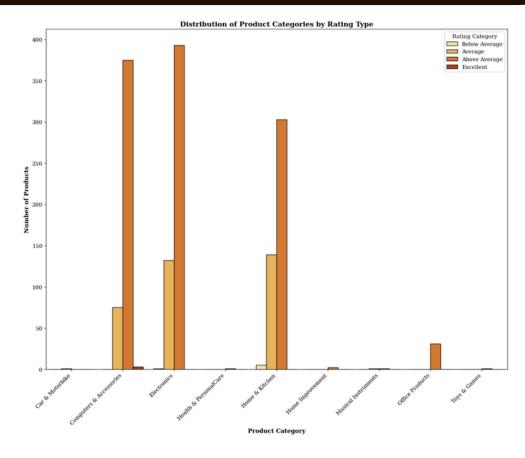


Discount does not significantly impact on sale volumes and rating.

Discount strategy does not work effectively with all product categories.

# 2. IMPACT OF RATING OVER SALES

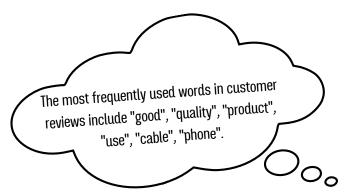




"Above Average" and "Average" ratings dominate across most categories, meaning most products receive positive ratings.

Electronics, Computers & Accessories, and Home & Kitchen have the highest number of rated products.

Some categories have "**Below Average**" and "**Poor**" ratings, indicating potential customer dissatisfaction for certain products.



want x sound quality sturdy well sess would quality sturdy well sess would approach to the control of the contr

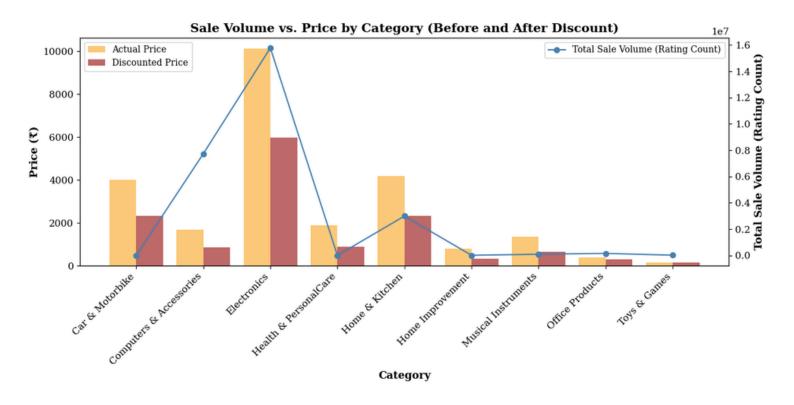
Word Cloud of Common Customer Review Keywords

- Customer complaints from reviews with rating under Average ("product", "quality", "bad", "working", "issue", ...): indicating that the most frequent issues raised by customers with low ratings are related to product functionality, poor quality, and defects.
- Customer dissatisfaction might due to other factors, such as service, interface, ... (the appearance of "Amazon", "return")



# 3. HIGH TICKET ITEMS







**Electronics** lead in sales volume among high-priced items, indicating that demand for premium electronics remains strong despite moderate discounts (biggest gap between Actual price and Discounted price). This has made Electronics a *high-value investment for businesses*.

Car & Motorbike and Home & Kitchen also belong to the high-ticket segment, with actual prices above ₹4,000. Car & Motorbike experiences a noticeable price drop post-discount, yet its total sale volume remains significantly lower than that of Electronics, which indicates that **price sensitivity** in this category is higher, and discounts alone may not be sufficient to drive sales.





**Health & Personal Care**, though priced lower than other high-ticket categories, does *not exhibit strong sales volume*, indicating that demand in this sector may not be as discount-driven as expected.

# **INSIGHTS**



- Electronics have the highest sale volume among the product categories, followed by Computer & Accessories,
   Home & Kitchen.
- Most products receive discounts between 40% and 80%, with a peak around 50-70%. And the discount strategy is not the main factor leading to high sale volume.
- Most products receiving positive rating are from Electronics, Computers & Accessories, and Home & Kitchen,
  which have the highest number of rated products. Besides, low rating might be due to quality, functionality and
  service.
- In high-ticket categories, discounts alone do not universally drive sales. Electronics perform well despite moderate
  discounts, whereas categories like Car & Motorbike and Health & Personal Care may require additional value
  propositions beyond discounts.

# **RECOMMENDATIONS**

### Utilise the discount strategies

- Offer time-sensitive flash sales instead of continuous deep discounts to create urgency.
- Offer Personalisation discounts. With ongoing data and privacy legislation changes, including the phasing out of third-party cookies-building the customer buying portfolio, then giving them the personalised voucher.
- Reduce unnecessary high discounts and instead offer bundling (e.g., cookware sets) and premium memberships for better engagement.

## **Product Quality**

• Reduce the dependence on heavy discount by focuing on product quality improvement (better description, image, review from post-customer, quality insurance,...)

## **Customer Satisfaction and Trust Building**

• Leverage Customer Reviews & Sentiment Analysis to Improve Sales: Use sentiment analysis to track negative feedback trends and resolve frequent complaints (e.g., battery, durability, performance issues).

## **High-Demand & Discounted Products**

- Ensure the stocks of the high-demanded products (in Computer & Accessories, and Electronics categories), especially
  during the high-peak sale seasons (Boxing Day, Black Friday)
- Use the predictive analysis to predict how much inventory the company will need for an upcoming period.