



# DECIPHERING FEEDBACK, UNVEILING TRENDS: AMAZON PRODUCT REVIEWS ANALYSIS

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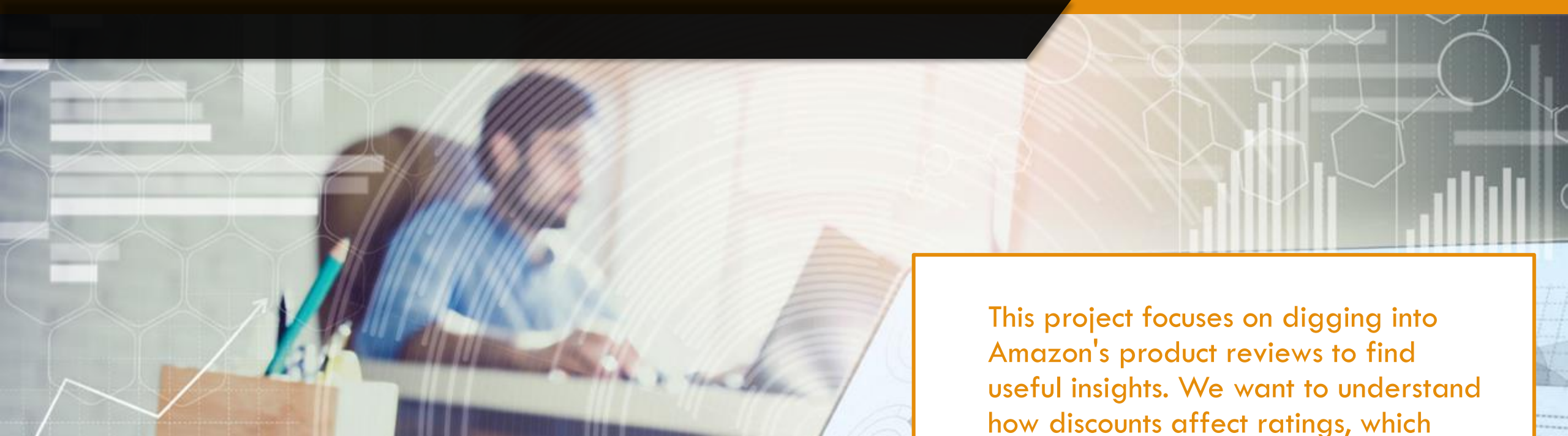
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# PROBLEM STATEMENT & BACKGROUND

The online retail market is fiercely competitive. Understanding customer preferences, product performance, and market trends can help a retailer stay ahead. The problem here is to analyse the dataset to extract insights that can help in enhancing product visibility, improving customer satisfaction, and eventually, increasing sales.



## PROJECT SCOPE

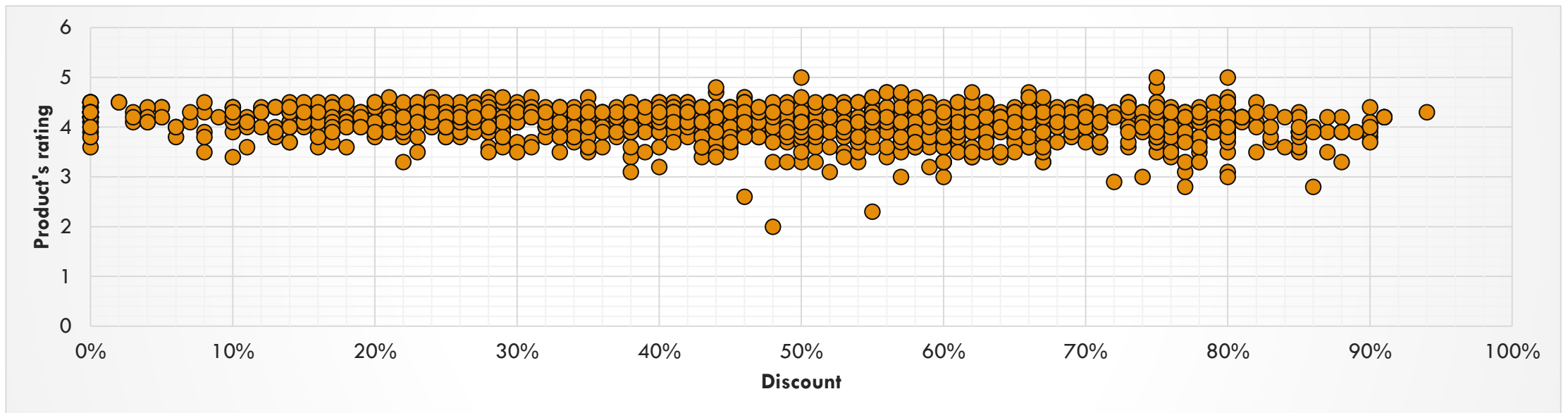
This project focuses on digging into Amazon's product reviews to find useful insights. We want to understand how discounts affect ratings, which categories get the best ratings, and whether product prices impact ratings. We'll also look at how review length and the presence of product images influence ratings. Our goal is to provide clear findings and recommendations to help boost sales and improve customer satisfaction.



# RECOMMENDED ANALYSIS

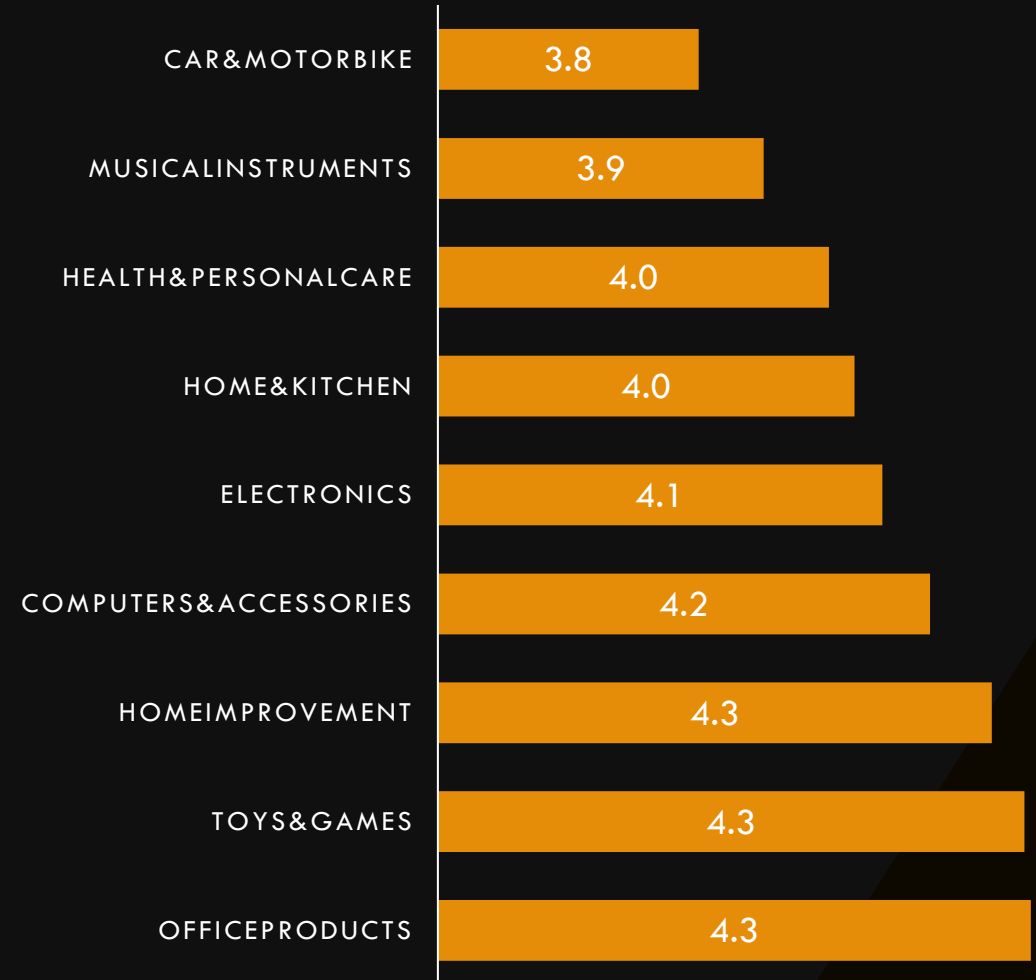
## DICOUNTS IMPACT ON RATINGS

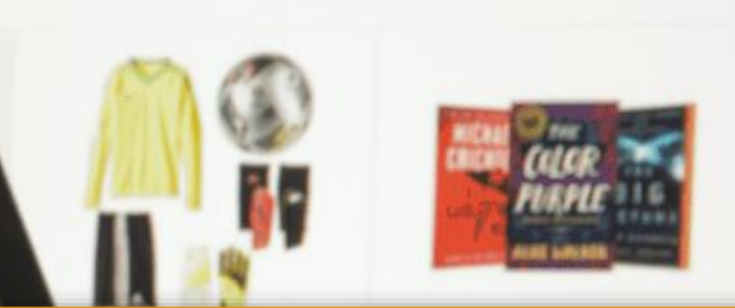
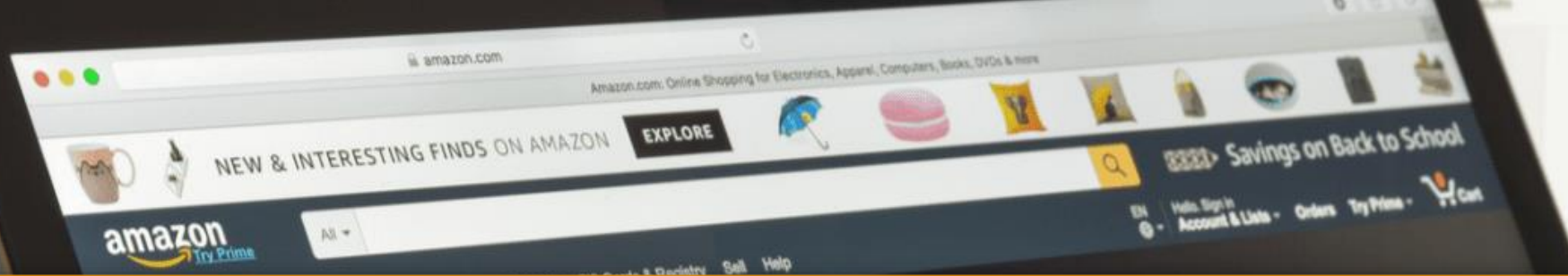
- It appears that there is no discernible correlation between the discount percentage offered and the rating of a product. The scatter plot depicted below, along with the linear trend line, illustrates that the discount percentage does not significantly influence the product's rating. Instead, it seems to depend largely on individual customer preferences. This observation is further supported by statistical analysis, which indicates that across discount ranges from 10% to 90%, the rating pattern remains consistent, averaging around 4.8 to 4.9 out of 5.



# HIGHEST AVERAGE RATING BY CATEGORY

The statistics indicate that the categories Office Products, Toys & Games, and Home Improvement boast the highest average ratings, each garnering a rating of 4.3. Following closely are Computer & Accessories and Electronics, ranked as the second highest-rated categories with ratings of 4.2 and 4.1, respectively. Other categories fall within the range of 4.0 to 3.8.

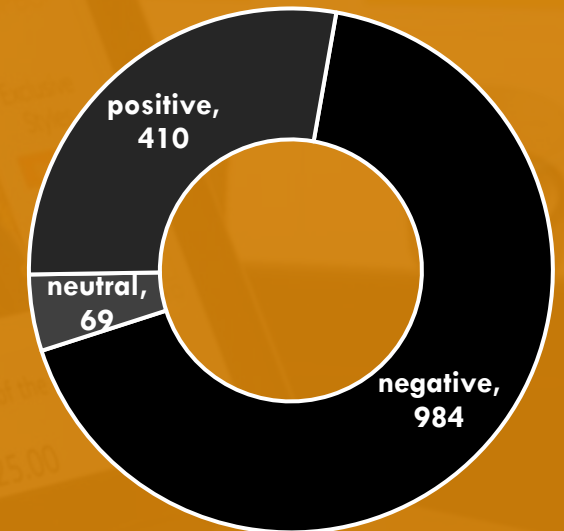




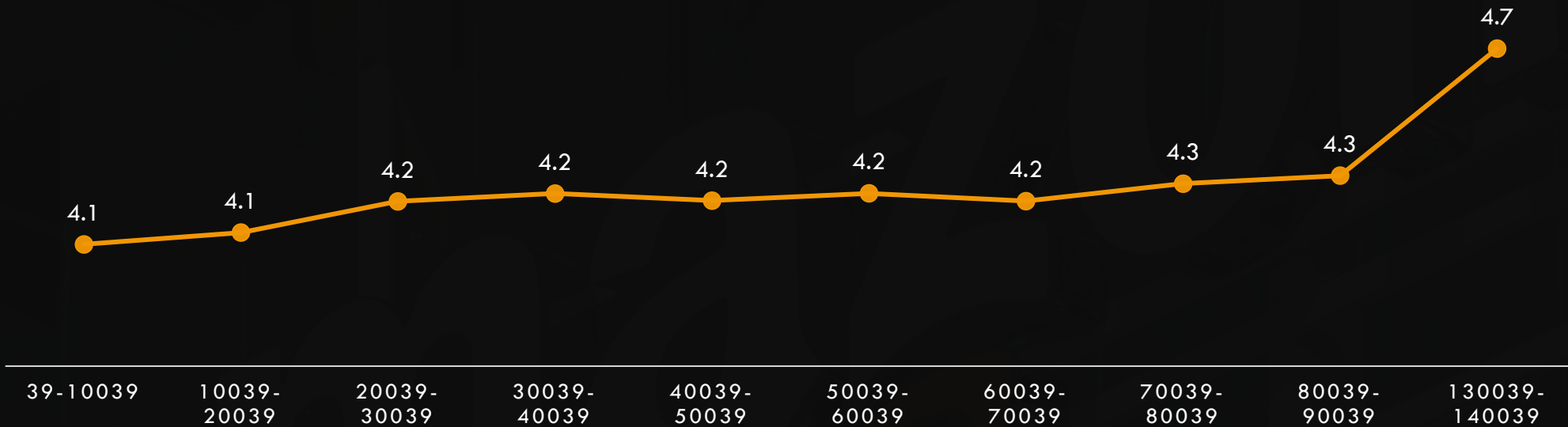
# THE MOST COMMON WORD IN THE POSITIVE AND NEGATIVE REVIEWS

- Most common words in positive reviews: ('good', 4751), ('product', 2754), ('quality', 1786), ('use', 1244), ('cable', 1157)
- Most common words in negative reviews: ('heater', 2), ('heating', 1), ('capacity', 1), ('zero', 1), ('initiated', 1)

COUNT OF REVIEW CONTENT BY SENTIMENTS



# CORRELATION BETWEEN THE PRODUCT'S PRICE AND ITS RATING



1. Positive correlation between price and rating observed in the data.

2. Higher price ranges associated with higher average ratings.

3. Products priced at 70039-80039 and 80039-90039 exhibit average ratings of 4.3.

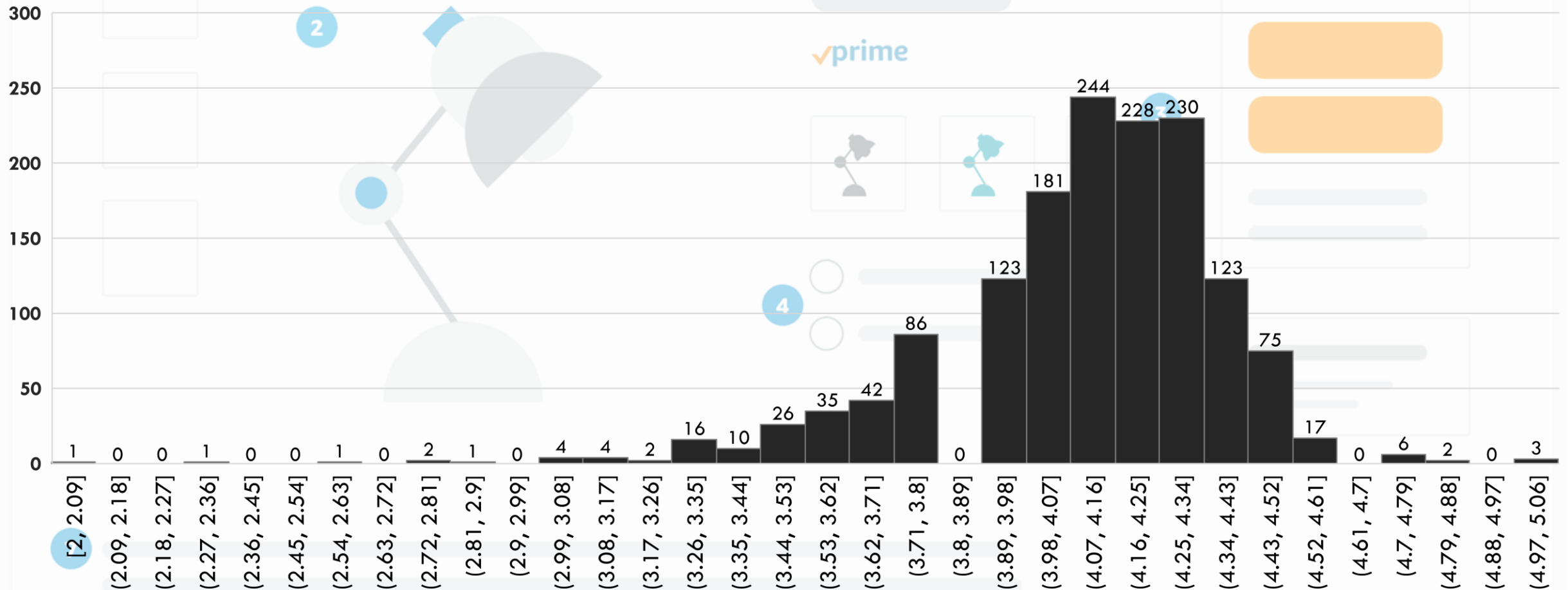
4. Lower price range products generally have ratings ranging from 4.1 to 4.2.

5. Noteworthy exception: Products in the highest price range (130039-140039) have an average rating of 4.7.

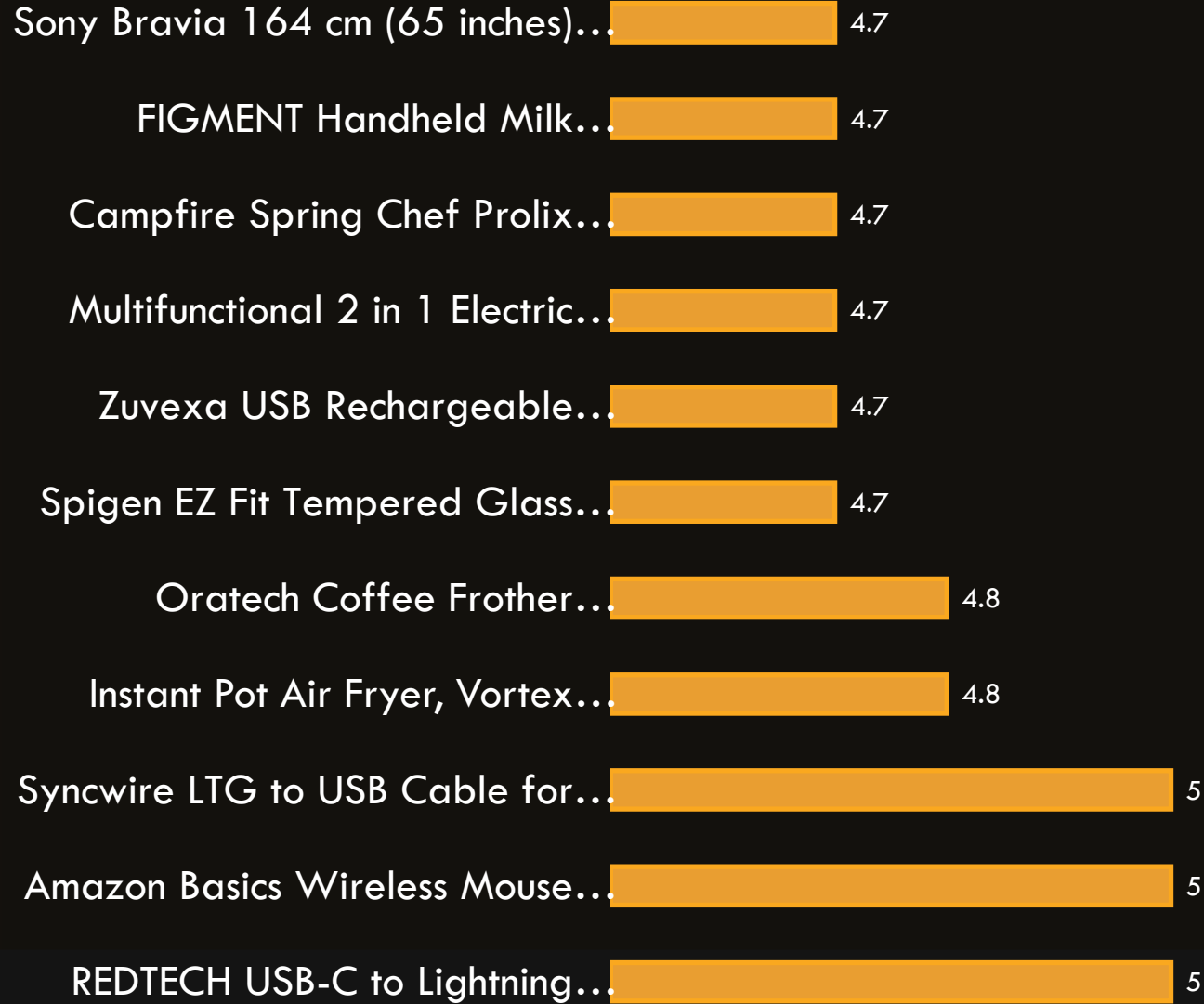
6. Suggests price isn't the sole determinant of rating; other factors may influence customer satisfaction and perception.



## DISTRIBUTION OF RATINGS ACROSS ALL PRODUCTS



## Top 10 products with highest ratings

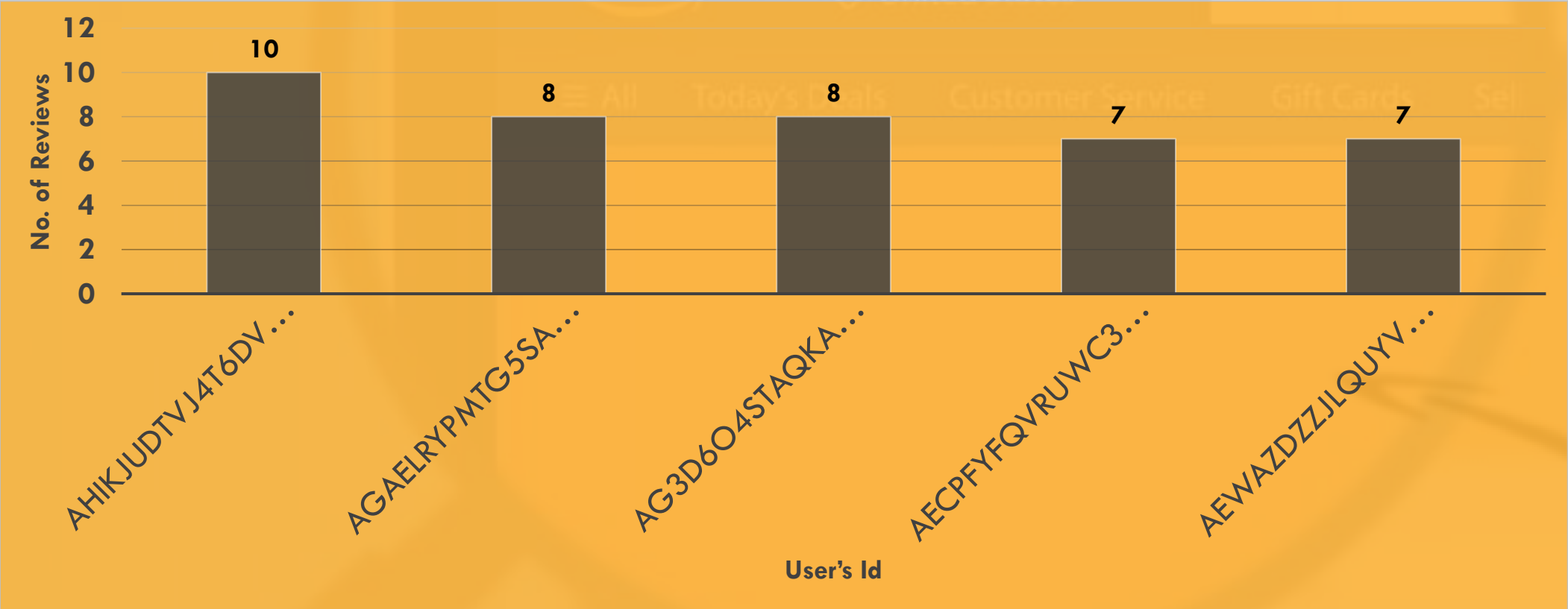


## PRODUCT WITH HIGHEST NUMBER OF REVIEWS AND ITS RATING

The top 10 products with the highest ratings are as follows: at the forefront are REDTECH USB-C, Amazon Basic Wireless Mouse, and Syncwire LTG Charger, all boasting a perfect rating of 5.0. Following closely are products with the second-highest rating of 4.8, including Instant Pot Air Fryer Appliance and Oratech Electric Coffee Frother, among six others, each receiving a rating of 4.7.

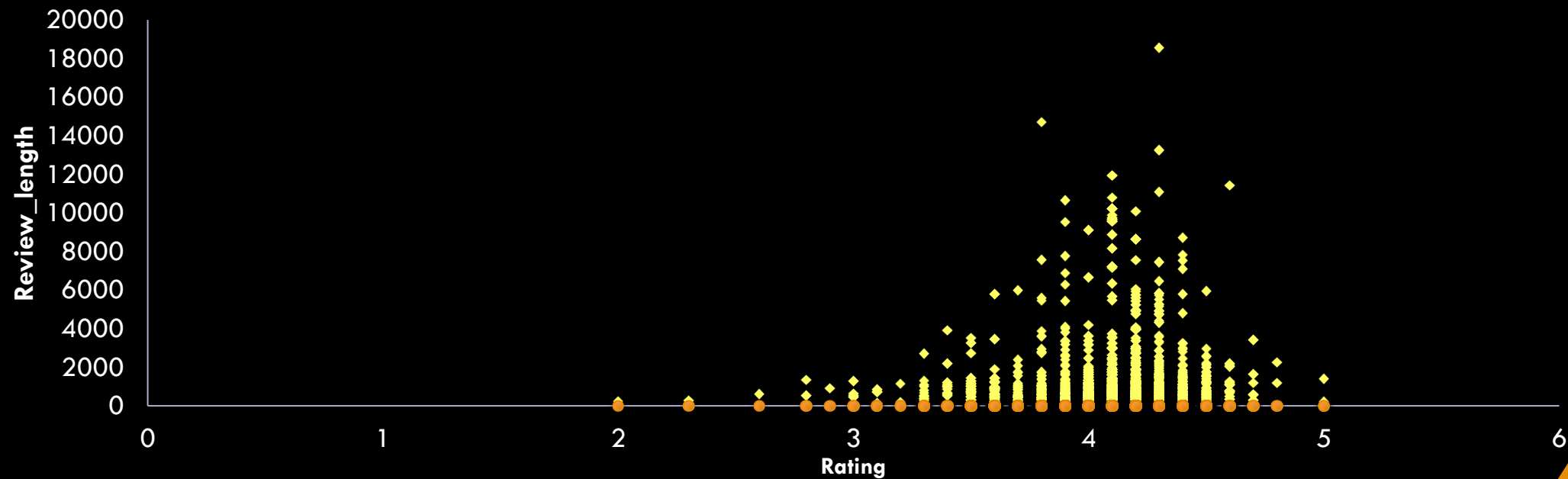
# TOP 5 USERS WHO HAVE GIVEN THE MOST REVIEWS

The chart depicts the user ID of a customer who has provided the highest number of reviews.



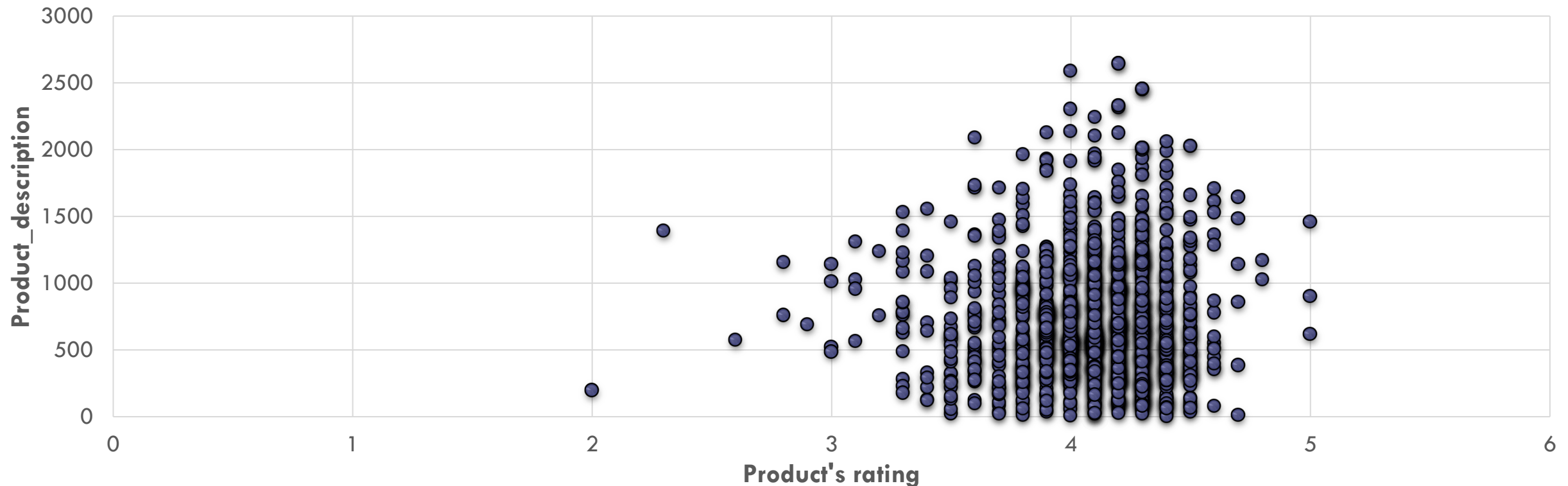
# CORRELATION BETWEEN REVIEW LENGTH AND RATING

The scatter plot conclusively demonstrates a correlation between the length of a review and its corresponding rating. This relationship is clearly depicted in the chart, where a review length of 626 characters corresponds to a rating of 3.0, while a review length of 11411 characters corresponds to a higher rating of 4.6. It can be inferred that customers tend to provide more extensive reviews when they are satisfied with a product, whereas they may be less inclined to compose detailed reviews if they are dissatisfied with it.



# Correlation Between Product Description Length and Rating

- Upon observing the scatter plot, it appears that there exists a correlation between the product description and the product's rating. This correlation suggests that individuals tend to exhibit a preference for comprehensively described products. Specifically, as the length of the product descriptions increases, so does the corresponding rating. For instance, according to the chart, a product description with a length of 114 characters yields a rating of 3.0, whereas a description of 2646 characters is associated with a higher rating of 4.3, and so forth.







## CONCLUSION

In conclusion, the analysis of Amazon product reviews uncovers valuable insights. Higher-priced products generally receive higher ratings, suggesting a correlation between price and perceived value. Additionally, longer reviews tend to accompany higher ratings, indicating that customers appreciate detailed feedback. Furthermore, there's an indication that longer product descriptions might lead to higher ratings, highlighting the importance of providing comprehensive information. Understanding these correlations can empower sellers to optimize their product listings, enhance customer satisfaction, and ultimately drive sales on the platform.

# THANK YOU

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