SEPHORA & CUSTOMER BEHAVIOR

By: Kat Goodman

# INTRODUCTION TO SEPHORA & DATASET

- Sephora is a prestige French retailer beauty products
  - Originally a perfume chain
  - Established in the US since 1998
  - "We Belong to Something Beautiful"
- Only US customer base for 2020
- Products range from makeup to even candles
  - Total of 9,168 products inside dataset
- [Dataset was collected by a Data Scientist](#)

CUSTOMERS & SEPHORA COMMUNITY

- Customers can browse and put a heart on a products
  - Items customers heart are placed in a private list
  - Customers can see the hearts
- Customers can purchase products online or in-store
- Products are reviewed by customers online
  - Rating scale from 1.0 to 5.0 stars
  - 5.0 stars = Excellent

NARS
Soft Matte Complete Concealer


202....

$30.00
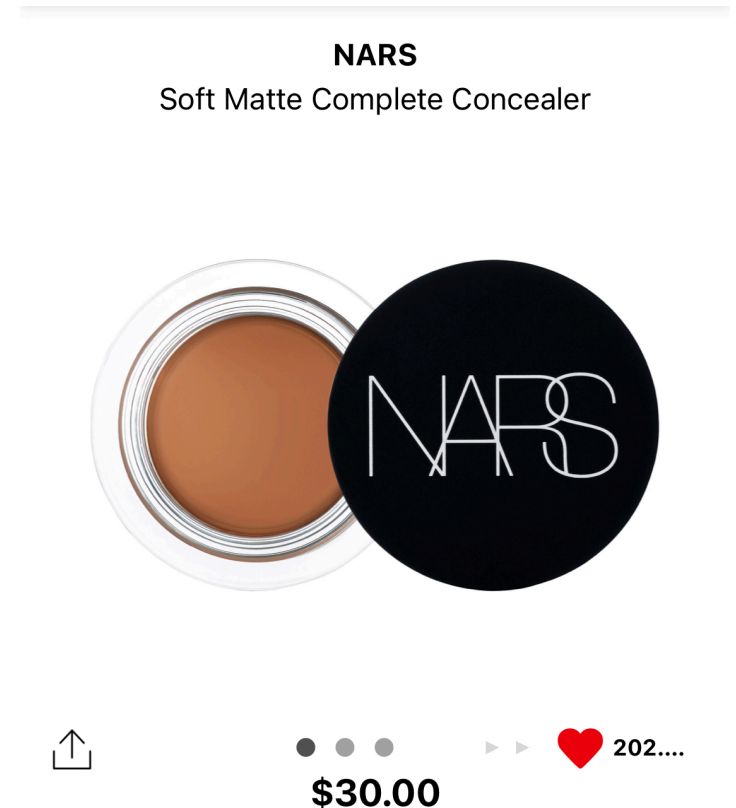
CUSTOMER BEHAVIOR AT SEPHORA

- How can customer behavior influence products offered at Sephora?

- Are customers only purchasing items that have higher ratings?

- Are customers purchasing popular items or items they want?

- With COVID-19, how has customer behavior changed?
  - Households are losing income but are customers still purchasing high end products?

- Should Sephora continue to sell fragrance/perfume products as customer behavior changes?

AVERAGE PRODUCT PRICES

- On average, products at Sephora are $50

- There are outliers

  - Some products might be <= $20

  - A few products are >$200

Price Density of Products at Sephora
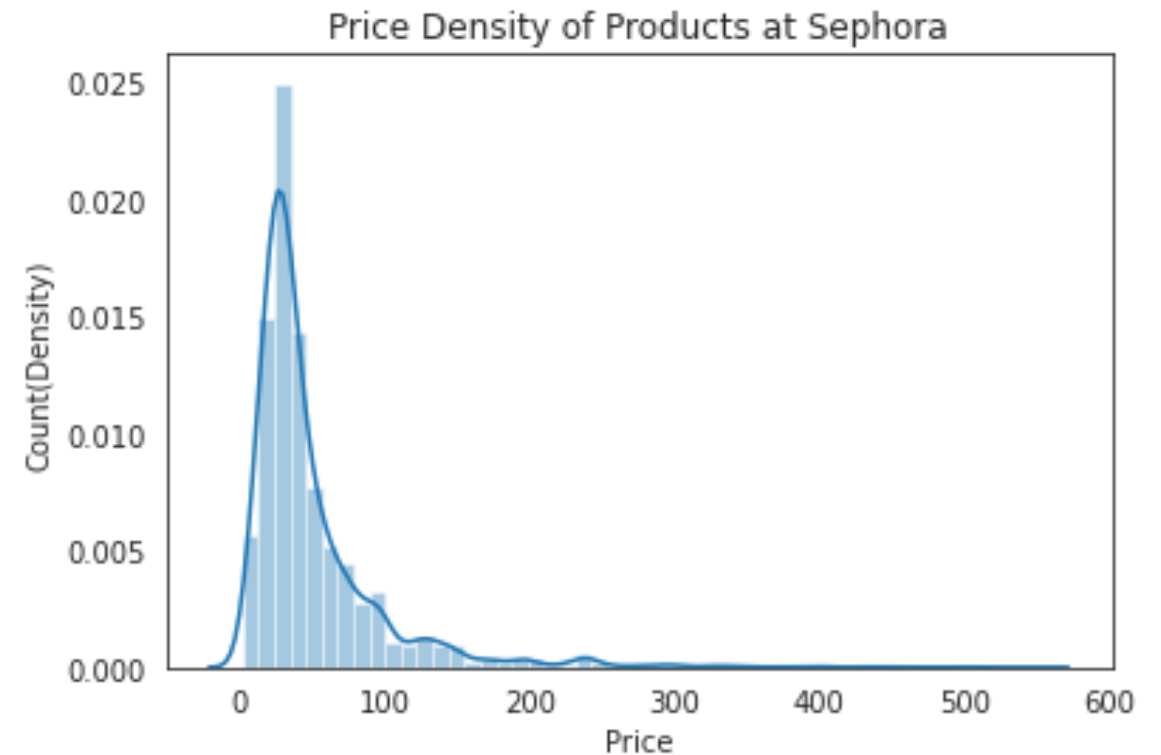
RATINGS & LOVES

- Products were grouped based on their rating

- Based on the chart:
  - Products with a rating of 4.5 stars have a large amount of loves when combined
 - Ratings average between 3.0 to 4.5 stars

Ratings and the amount of loves
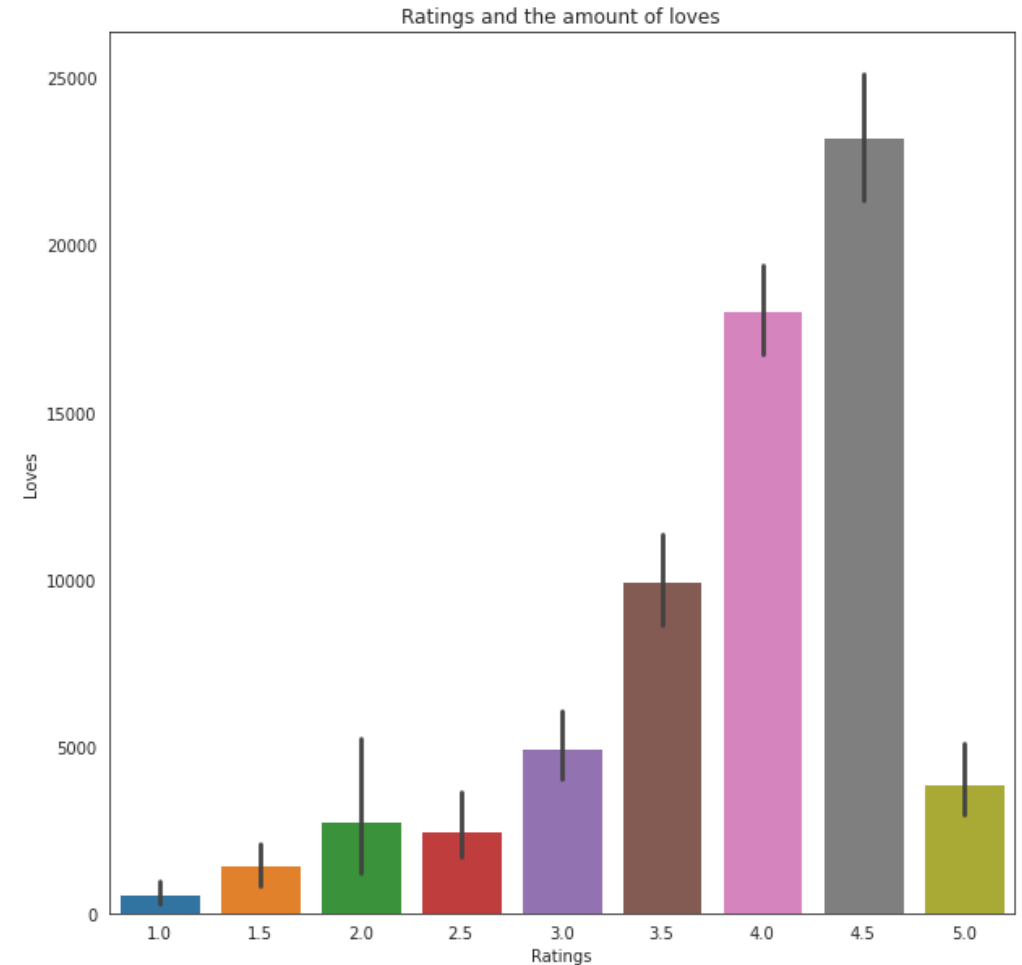
HYPOTHESES ON CUSTOMER BEHAVIOR

- #1: I hypothesize that there is a correlation between products with higher ratings and the amount of loves received from customers

- #2: I hypothesize that items priced lower or equal to $50 are rated higher than products over $50

- #3: I hypothesize that there are more loves for makeup products for the face versus fragrance products

CORRELATION BETWEEN RATINGS & LOVES

- Is there a correlation between products with higher ratings and the amount of loves received from customers?

- Yes, positive correlation!

- Products with higher ratings (>3.5 stars) have received more loves

- Measured with a Pearson R test

Correlation between Ratings and Loves
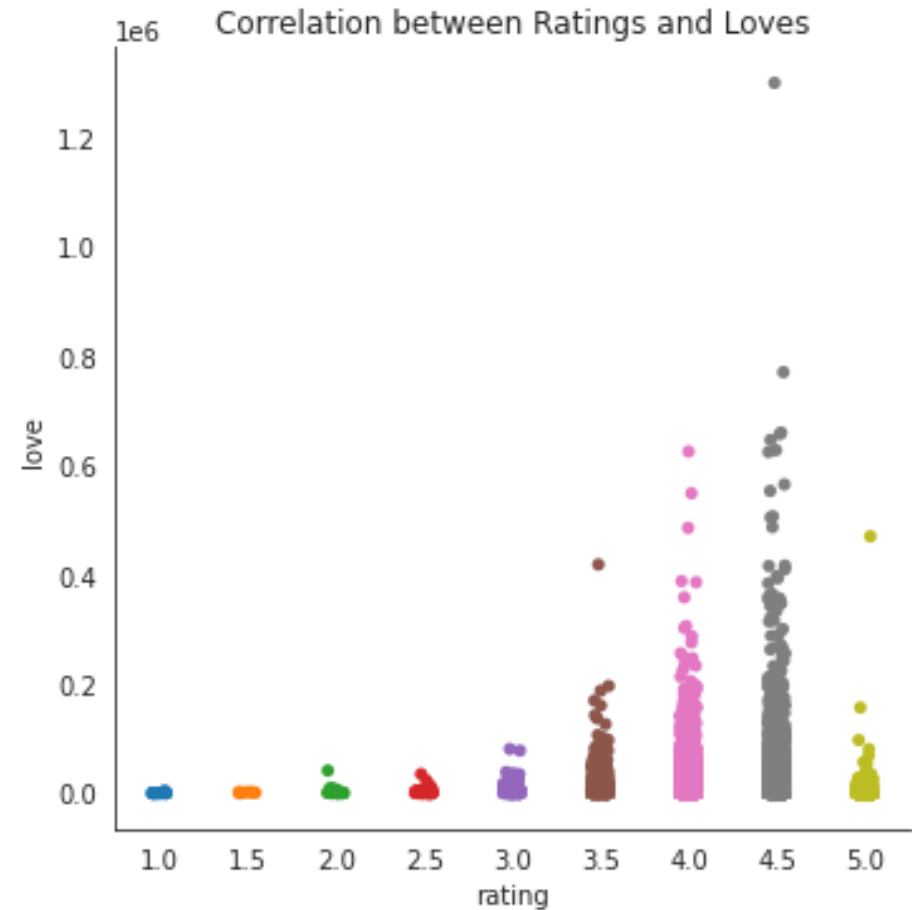
LOWER PRICED VS. HIGHER PRICED

- Are customers rating products (<$50) higher since they are affordable?
  - COVID 19 and Sales
  - $49.80 is the average price
- Lower Priced Products
  - Products less than or equal to $50
  - Lower Priced Products (6,084)
  - 82% are rated 4.0 or higher
  - The average rating is 4.1 stars

Lower Priced Products and their Ratings vs. Price

LOWER PRICED VS. HIGHER PRICED

- Products equal to or higher than $50

  - Higher Priced Products

  - 86% are rated 4.0 or higher

  - The average rating is 4.25 stars

- With a t-test, there is a statistical difference

- The hypothesis is false

  - Higher priced products are rated higher!

Higher Priced Products: Ratings vs. Price
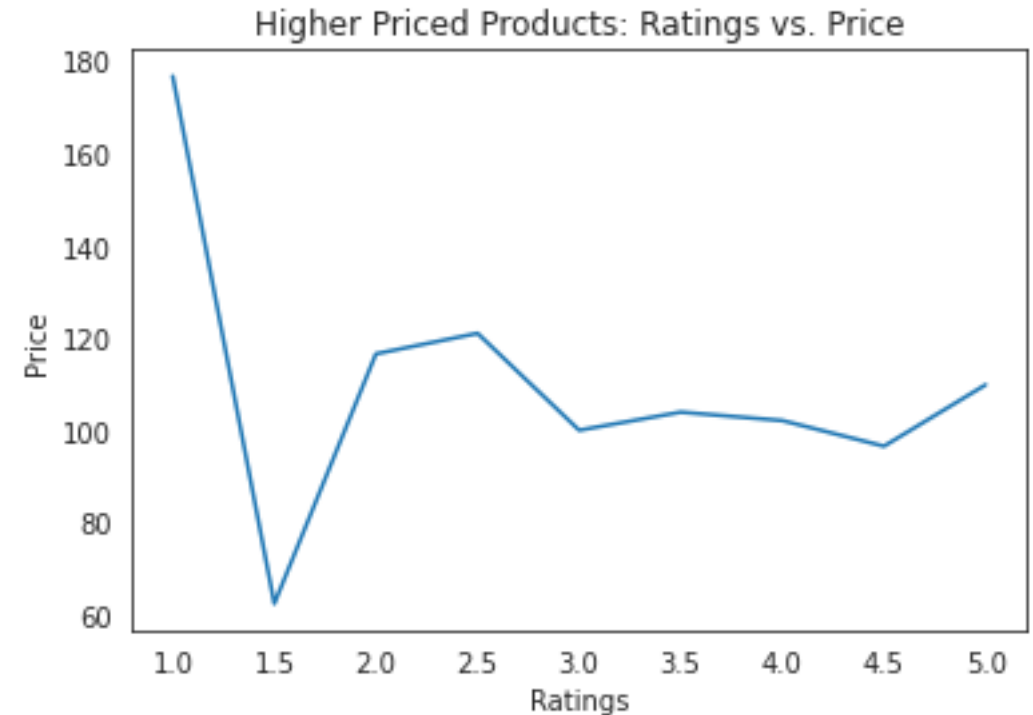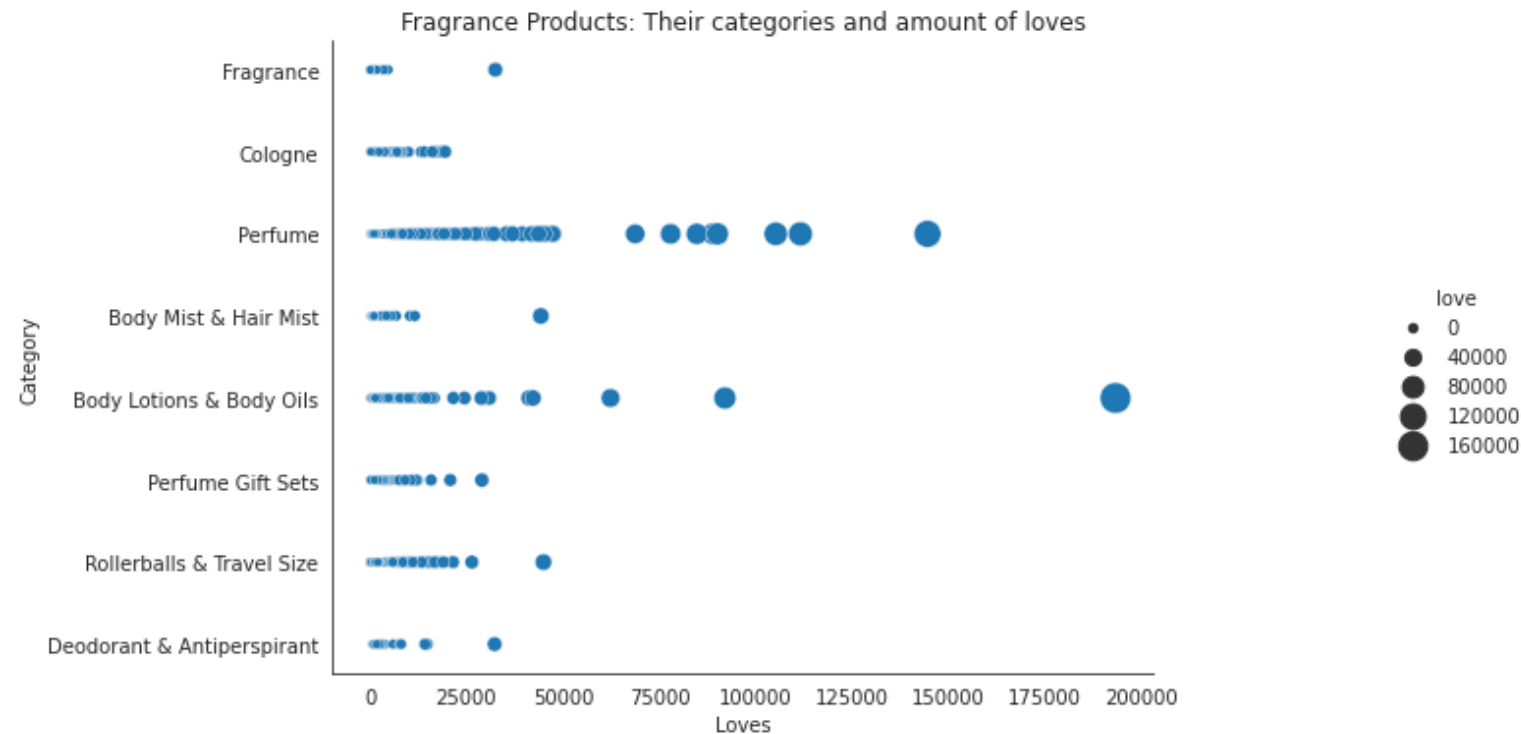
FRAGRANCE VS. MAKEUP FOR THE FACE

- The beauty industry is evolving
  - Youtubers and Influencers influence popularity and sales

- Is it affecting makeup sales?

- Do makeup products for the face receive more loves than fragrance products?

- Products were divided into 2 categories
 - Lip and eye products not included

FRAGRANCE VS. MAKEUP FOR THE FACE

- Fragrance includes 10 categories
  - Fragrance, perfume, cologne
  - Deodorant, etc.
  - 1297 products
- Average amount of loves
  - 5,816 hearts

Fragrance Products: Their categories and amount of loves

FRAGRANCE VS. MAKEUP FOR THE FACE

- Makeup includes 15 categories

  - Palettes, Powder, Foundation

  - 1226 products

- Average amount of loves

  - 37,246 hearts

- There is a statistical significance between fragrance and face

- Accept the hypothesis!

Face Products: Their categories and amount of loves
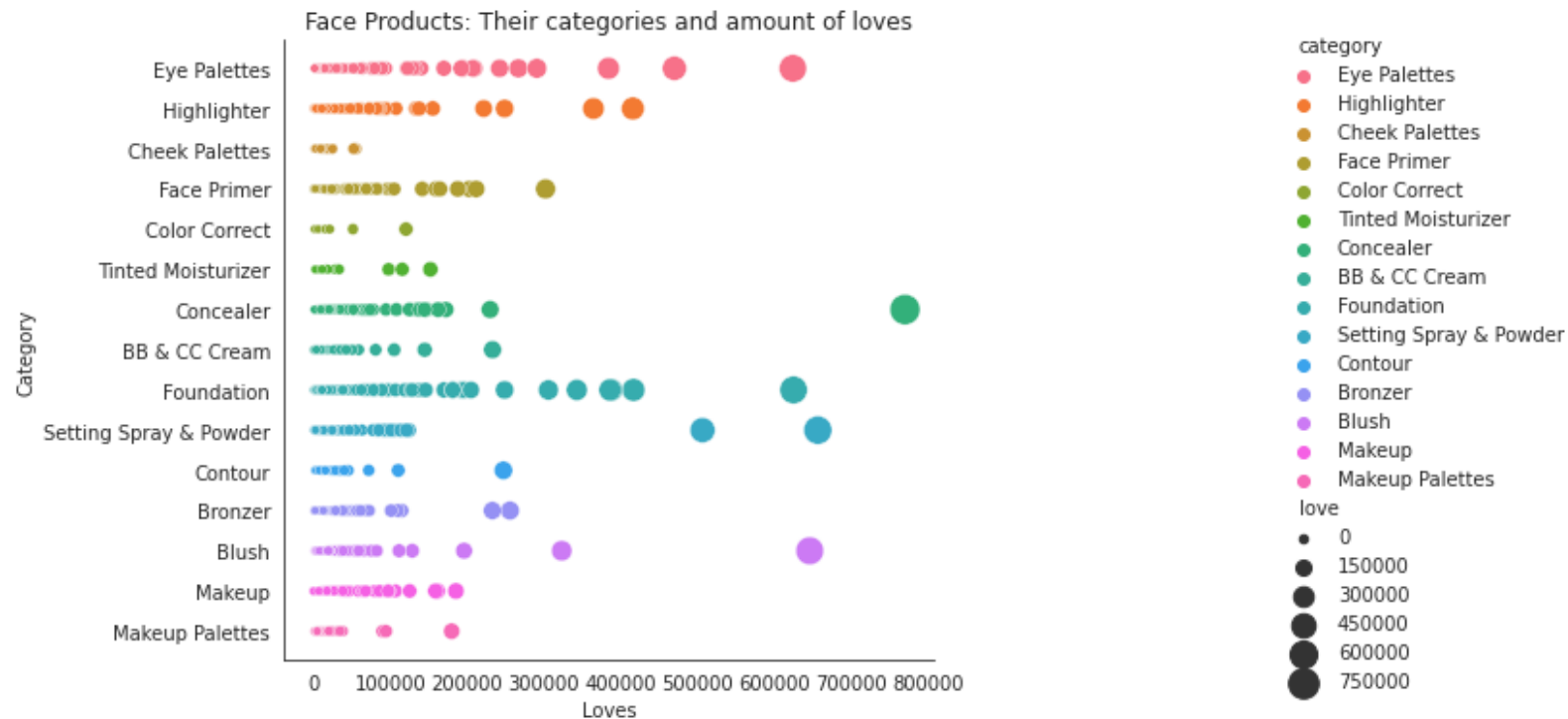
IN CONCLUSION,

- Sephora has a robust community with interactive customers

- Sephora can see what products are popular and rated highly

- Findings
  - Positive correlation between loves and rating
  - Higher priced products are rated higher
  - Makeup products are popular

NEXT STEPS

- Expand to include lip products with makeup products

- Expand to investigate popularity of skincare versus fragrance

- Expand to investigate the profit margin between makeup, skincare & fragrance
  - Should Sephora look more into removing fragrance items?

- Conduct customer surveys on product prices
  - COVID-19

ANY QUESTIONS?