Global Makeup Shades: Final Report

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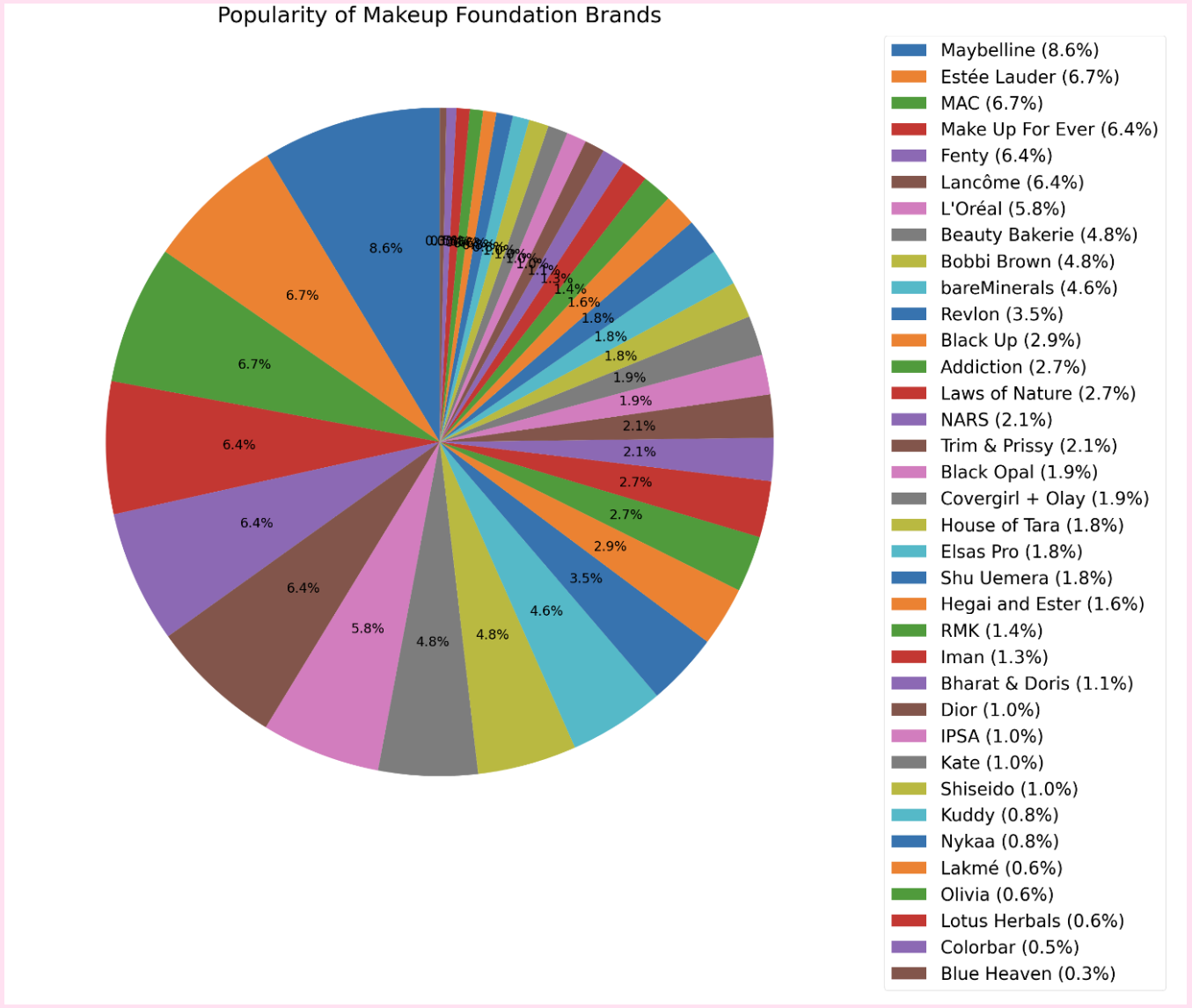
Original Figure:



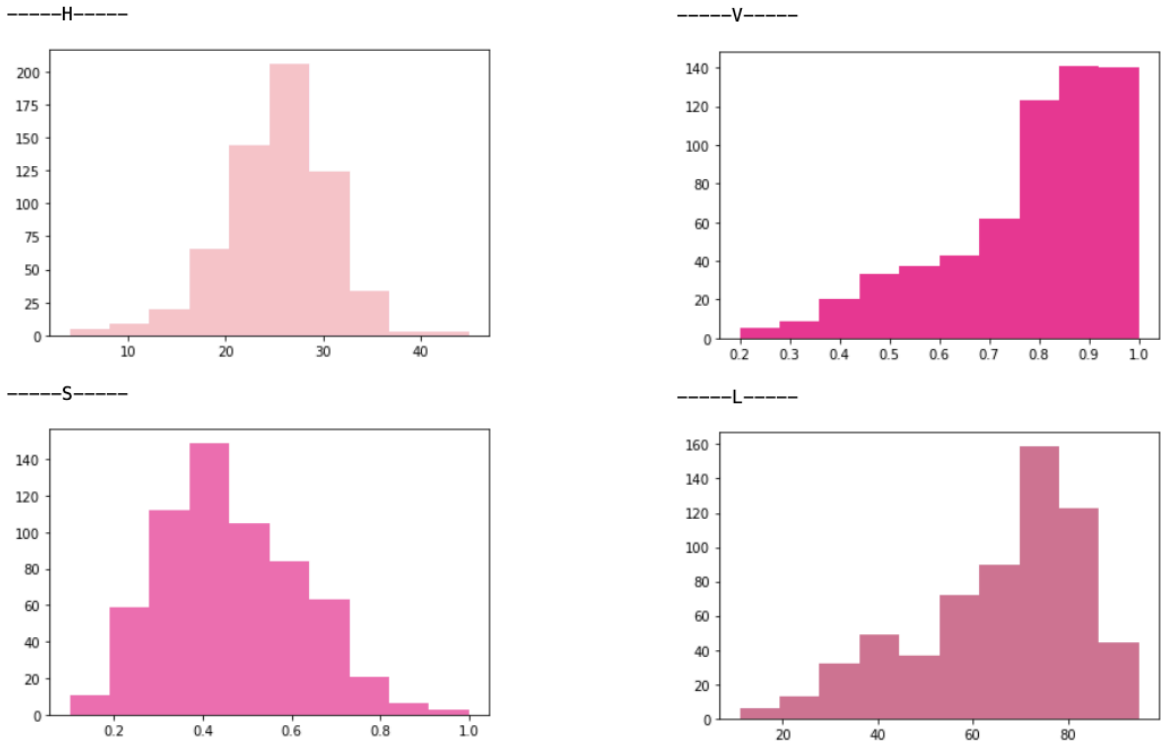
Legend: Each of the 36 colors represents a makeup brand; Each slice is a representation of the brands popularity in percentage only considering foundations.

Findings:

- Popularity in this case is due to the availability, quality, and variety of shades in foundations
- This dataset looks at how important it is for cosmetic brands to provide a wide variety of foundation options that are suitable for all skin types. It highlights industries' commitment to

inclusivity by analyzing the liquid foundation lines of leading brands, guaranteeing that people with different skin types have plenty of options for the ideal fit.

- Several sources compiled a list of beauty brands from the US, Nigeria, India, and Japan that were regarded as "best sellers" in their respective nations.
- In regards to the figure I increased the legend size while including the percentages as you see the pie chart itself becomes clustered. I also removed the brand names alongside the pie chart but kept the percentages. I did this because it's important to see the larger slices and correlate them to the legend.

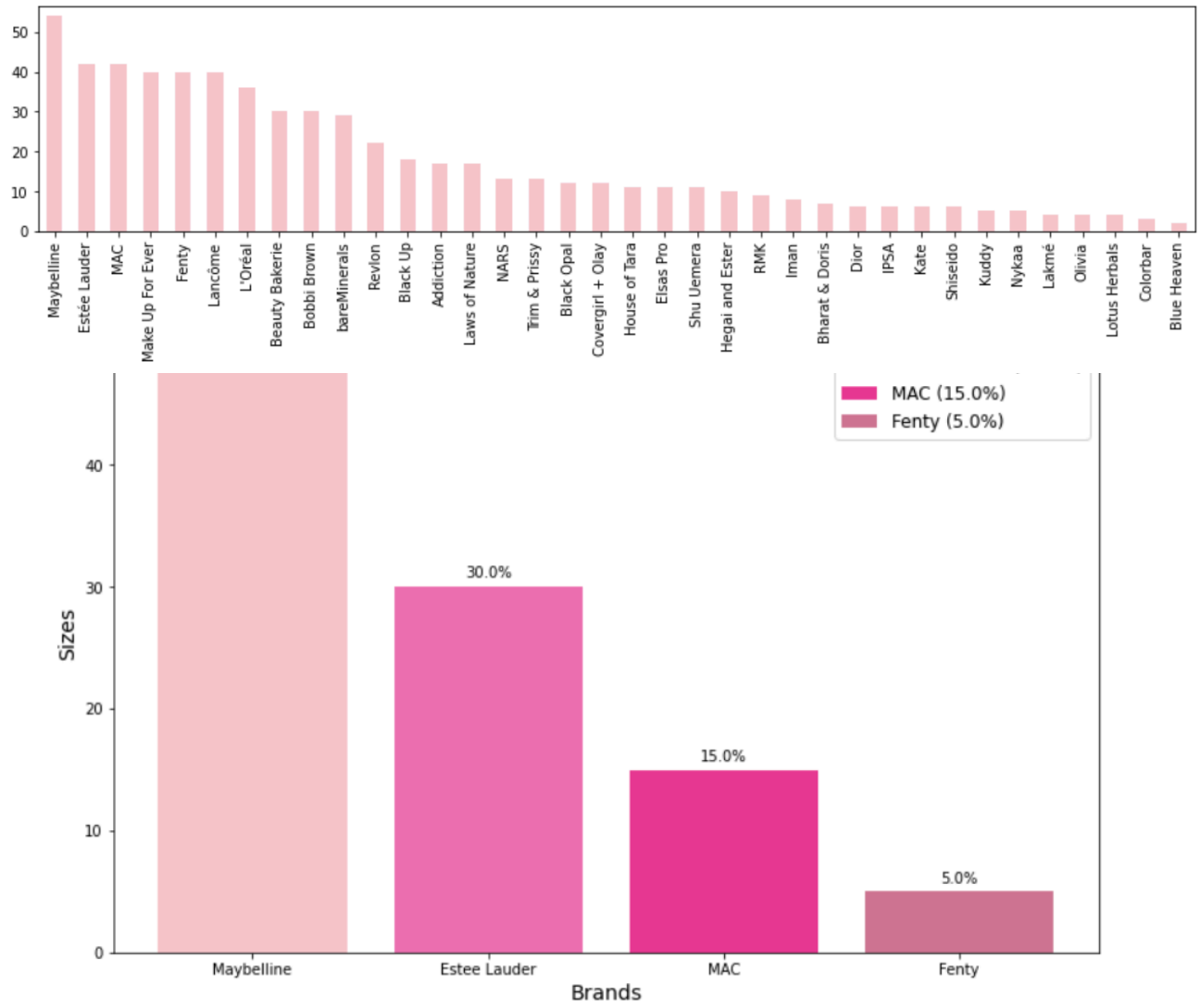


- Lightness in makeup terms refers to how well a foundation line suits lighter/darker skin tones. Value and brightness are comparable terms of how we see light which is perceived by luminance.
- Saturation refers to the colors becoming increasingly washed-out or pale as the saturation drops.
- Hue refers to the tones of colors whether a foundation is more olive green, yellow or has a reddish undertone.

METHODS AND PROCESS:

- I first off picked the data set I felt most interesting to me: https://www.kaggle.com/datasets/shivamb/makeup-shades-dataset
- In Anaconda, I used Jupyter where I imported pandas, numpy, matplotlib.pyplot, LabelEncoder, and other necessary programs to run the dataset.

- Using functions like ‘plot.bar’, ‘ax1.pie’, ‘plt.hist’ and ‘plt.bar’ I was able to create graphs to ultimately come to a conclusion. These graphs include a pie chart, histogram, heatmap, and bar graph. Some of these better represented the data than others.
- For the pie chart I used calculations like ‘percentages = [(size / total) * 100 for size in sizes]’



SIGNIFICANCE:

- Oftentimes most consumers of foundation have to buy multiple in order to mix colors to match their own unique skin tone. This raises issues like cost, diversity, and inclusivity. This dataset accurately represents the most diverse yet popular makeup brands and their variety of available colors.
- After further analysis, it was found that Maybelline, Estee Lauder, MAC, and Make Up For Ever were the most popular. However, after considering factors like tone of color and the most diverse range of color Maybelline, Estee Lauder, MAC and Fenty were the ultimate top winners for foundation choices.