



Ten-minute Analytics Challenge

Top Beauty & Cosmetics Products Worldwide 2024

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About Dataset

- Source: Kaggle
- Key Features:
Product Name, Brand, Reviews, Ratings, Price, Ingredients, Packaging, Country of Origin
- This dataset include 5,000 beauty products. Provides insights into global beauty and cosmetics trends, popular brands, and consumer preferences.

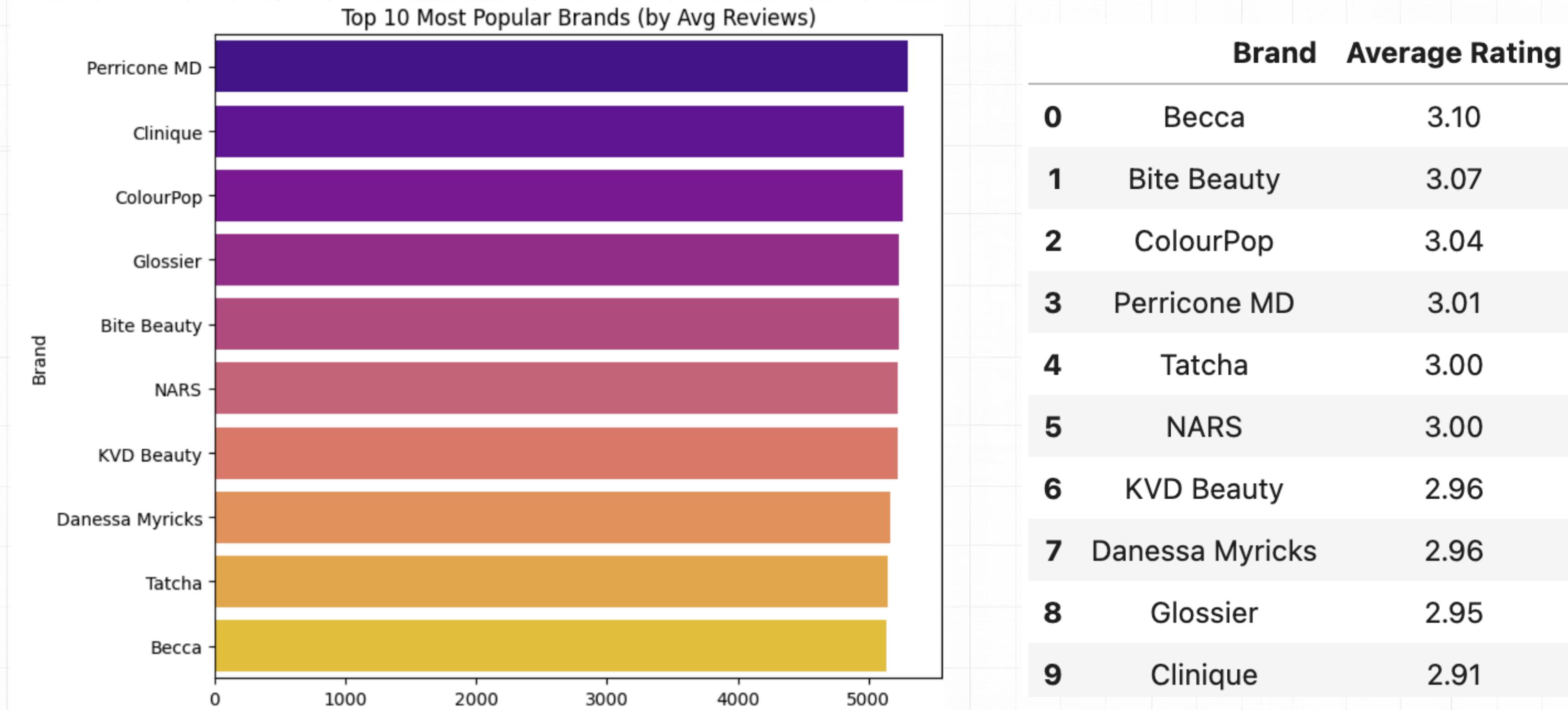
Objective

- Identify factors influencing product popularity & ratings.
- Examine pricing, ingredients, and country impact.



Most Popular Brands don't really have good rating

I found the rating is not high and even lower than the overall mean (3.002327) among the top 10 brand.



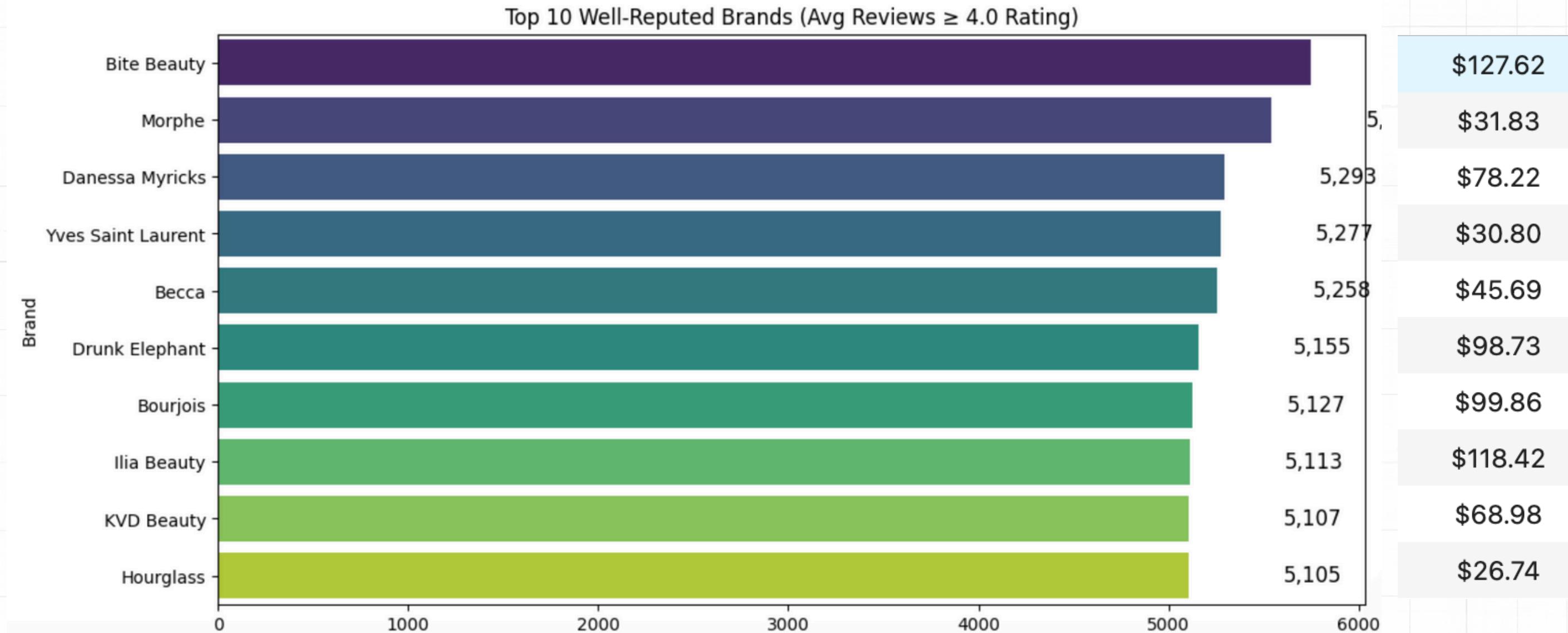
Popularity of a brand is not primarily driven by affordability or daily usage frequency

	Brand	Average Price (USD)	Most Common Usage Frequency
8	Perricone MD	\$79.36	Daily
2	Clinique	\$80.53	Monthly
3	ColourPop	\$80.28	Occasional
5	Glossier	\$80.87	Weekly
1	Bite Beauty	\$77.43	Weekly
7	NARS	\$76.34	Weekly
6	KVD Beauty	\$81.20	Monthly
4	Danessa Myricks	\$81.36	['Monthly' 'Weekly']
9	Tatcha	\$78.77	Weekly
0	Becca	\$82.55	Monthly

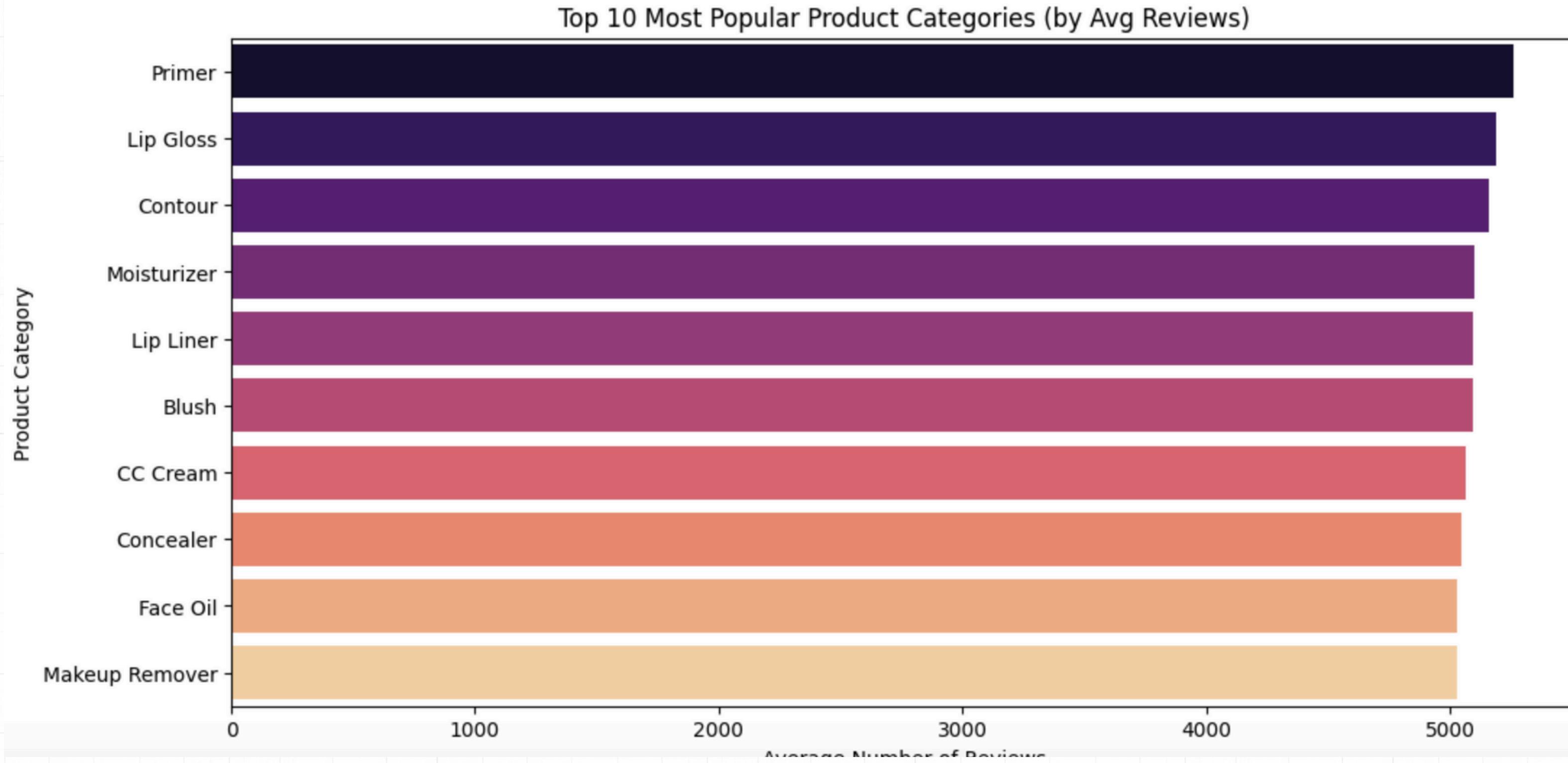
- The average product price is relatively higher than overall mean(\$80.13)
- Most common usage frequencies are mostly weekly or monthly, not daily.
- Brands like Clinique, ColourPop, and Bite Beauty have higher-priced products that still maintain high ratings. This suggests that reputation and perceived quality play a crucial role in their popularity.
- Other brands' most popular products have low ratings despite high review counts. This could indicate aggressive marketing, discounts, or advertisements leading to high sales but disappointing user experience.

Well-reputed brands tend to have lowe prices compared to the general market

Most popular brands have low ratings, so I filtered for well-reputed ones (rating >4). The chart shows they tend to be lower-priced, suggesting customers value cost-performance—cheaper products with good performance are rated higher.

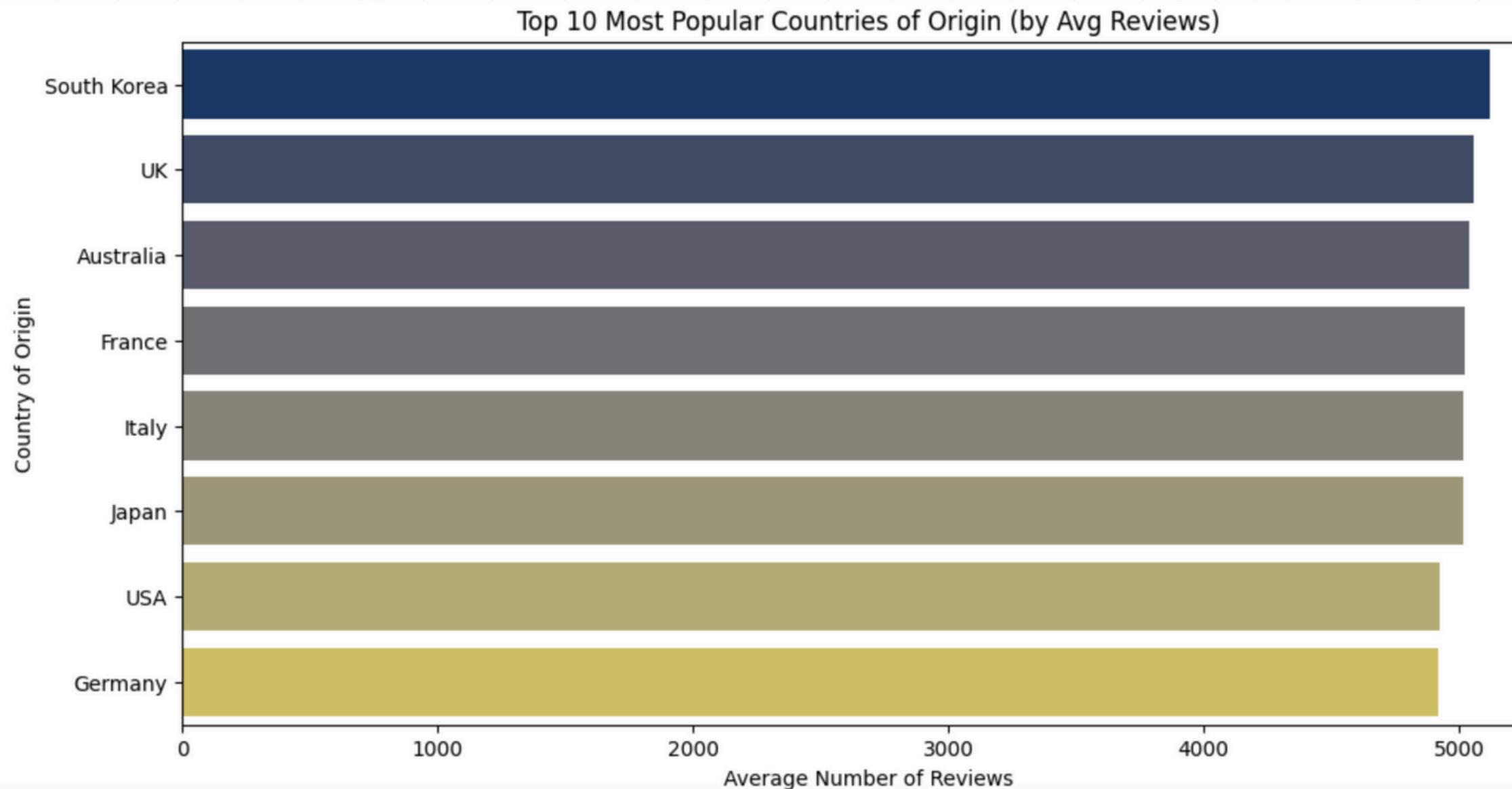


Primer, Lip Gloss, Contour are three most popular products categories in 2024



South Korea, UK, Australia products have the most reviews among all the origin countries

- South Korea dominates in skincare, with Face Masks leading in popularity (Avg. Rating: 3.34).
- The UK & Japan's base makeup (CC Cream & BB Cream) are popular and have high reputation among countries.



Country_of-Origin	Category
130	South Korea Face Mask
147	UK CC Cream
14	Australia Lip Gloss
31	France Exfoliator
91	Italy Moisturizer
96	Japan BB Cream
180	USA Foundation
69	Germany Primer

Reviews, Rating, Price Among Different Skin Type

- Combination skin has the highest engagement , while Oily skin has the lowest.
- Price and rating differences among skin types are minimal. Dry skin products are the most expensive

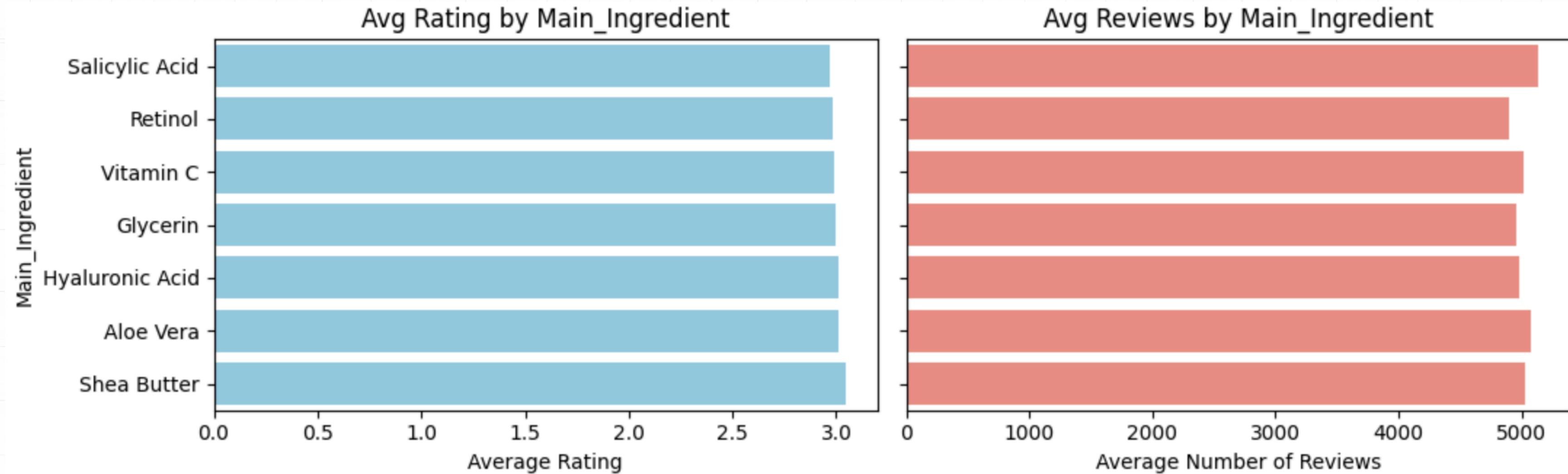


Common Main Ingredients for Each Skin Type

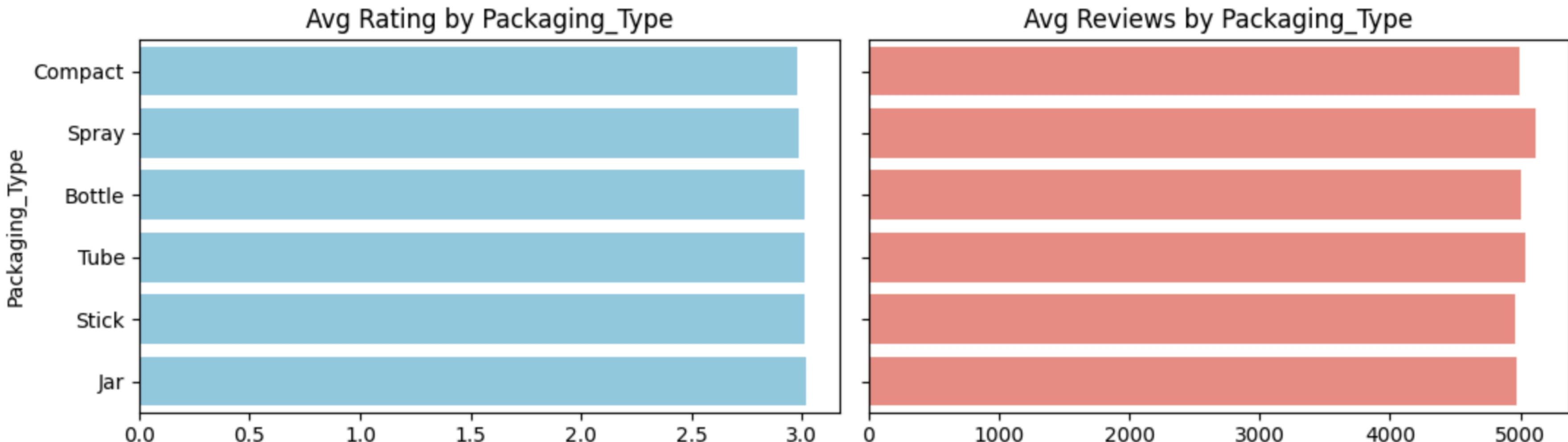
- Retinol, Salicylic Acid, and Shea Butter appear across multiple skin types, indicating their versatile use in skincare.
- Sensitive & Dry Skin: Vitamin C & Shea Butter are common, likely due to their soothing & hydrating properties.
- Oily Skin: Retinol & Salicylic Acid dominate, aligning with their effectiveness in controlling oil & acne.
- Combination Skin: Has a blend of hydration (Hyaluronic Acid, Shea Butter) and exfoliation (Salicylic Acid, Retinol).

Skin_Type	Main_Ingredient_1	Main_Ingredient_2	Main_Ingredient_3	Main_Ingredient_4	Main_Ingredient_5
Sensitive	Vitamin C	Salicylic Acid	Glycerin	Shea Butter	Retinol
Dry	Vitamin C	Shea Butter	Aloe Vera	Salicylic Acid	Retinol
Normal	Glycerin	Retinol	Hyaluronic Acid	Aloe Vera	Shea Butter
Oily	Retinol	Salicylic Acid	Glycerin	Shea Butter	Vitamin C
Combination	Retinol	Hyaluronic Acid	Salicylic Acid	Shea Butter	Vitamin C

Aloe Vera, Salicylic Acid appear frequently in highly-reviewed products, products with Shea Butter have slightly better rating



Spray has slightly higher reviews than others



Conclusion

Popularity = Quality

- Most reviewed brands have average ratings around 3.0.
- High engagement is often driven by marketing, promotions, or trends, not necessarily performance.



Pricing Has Minimal Impact on Popularity

- The average price (~\$80.13) is consistent across brands.
- No strong correlation between price and review engagement—expensive products can be highly praised or criticized.



Ingredient Trends Align with Skin Type Needs

- Oily Skin → Retinol & Salicylic Acid (oil control, acne prevention).
- Dry/Sensitive Skin → Vitamin C, Shea Butter (hydration, barrier repair).
- Combination Skin → Hyaluronic Acid (hydration) & Salicylic Acid (exfoliation).



Country Influence on Beauty Trends

- South Korea dominates skincare popularity, likely due to strong reputation in innovations.
- European & Australian brands perform well in makeup & luxury skincare.

Thank You