

DATA ANALYSIS REPORT ON BEAUTY PRODUCTS



Prepared by: Rutuja Harer
Guide by: Vishal sir



Introduction:

This dataset contains information about a diverse range of beauty products from various brands. Key attributes include product name, brand, category, usage frequency, price, customer rating, number of reviews, and product size. The dataset also provides details on skin type, target gender, packaging type, main ingredients, whether the product is cruelty-free, and its country of origin.

Executive summary:

Key Findings:

The dataset shows that how many top products are there which brand play major role. What type of category are sell most and from which brand are the sell most. And also which brand are use by female and male. What type of ingredients are selling most. what are the highest reviews for the top brand and products.

Conclusion:

The data shows that key ingredients like Retinol and Glycerin boost customer satisfaction, and cruelty-free products receive higher ratings. Prices also vary based on skin type, such as oily or sensitive skin. To make customers happier, brands should offer more cruelty-free products, make sure they're creating items for different skin types, and set prices that match customer needs.

Recommendations:

- **Products to Skin Types:** Develop specific products for various skin types (e.g., oily, dry, sensitive) to better meet customer needs.
- **Offer Samples:** Provide product samples, especially for new launches, to encourage customers to try before they buy.
- **Improve Packaging:** Make packaging better by using materials that are good for the environment and easy to use. This will attract customers who care about the planet.
- **Gather Customer Feedback:** Continuously collect and analyze customer feedback to improve product formulations and offerings.

Objective:

The objective of this analysis is to evaluate and compare beauty and skincare products based on key attributes such as price, ratings, reviews, skin type compatibility, main ingredients, and cruelty-free status. The goal is to identify trends, correlations, and insights that can help consumers and brands make informed decisions about product selection, pricing strategies, and ingredient preferences. Additionally, the analysis seeks to assess the impact of product features like packaging, gender targeting, and origin on customer satisfaction and overall market performance.

Data overview:

Data source:

The dataset is publicly available on the Kaggle website and focuses on most used beauty and cosmetics products.

Data Description :

The analysis focuses on following key columns: which Product are selling mostly, Packing type, category, and country of origin

- **Records:** [Number of rows -150000]
- **Features:** [Number of columns - 14]

➤ **Methodology:**

- **Rating and Price Correlation:** Analyze the relationship between Price USD and Rating.
- **Review Count Insights:** Identify popular products based on Number of Reviews.
- **Compare product ratings and prices across Skin Type and Gender Target groups** to uncover trends.

➤ Analysis using Table:

➤ what is the uses frequency for top 3 brands and have 3.1 ratings?

Usage_Frequency	Brand	Total Count
Occasional	Milk Makeup	55
Monthly	Milk Makeup	65
Weekly	Milk Makeup	0
daily	Milk Makeup	52
Occasional	Make Up For Ever	60
Monthly	Make Up For Ever	53
Weekly	Make Up For Ever	50
Daily	Make Up For Ever	47
Occasional	Kiehl's	54
Monthly	Kiehl's	48
Weekly	Kiehl's	38
Daily	Kiehl's	55

Key findings: after analysis this question I can figure out which usage frequency are selling Most and what are there value counts.

Milk

1. Super concealer
2. S Setting spray
3. Magic lip liner
4. Ultra foundation
5. Divine mascara

Make up for

1. Divine Exfoliator
2. Magic Concealer
3. Perfect Eyeshadow
4. Super BB Cream
5. Divine Blush

Kiehl's

1. Super lip linear
2. Perfect Eye shadow
3. Perfect primer
4. Magic face oil
5. Perfect Mascara

NARS

1. Super concealer
2. S Setting spray
3. Magic lip liner
4. Ultra foundation
5. Divine mascara

E.L.F

1. Ultra face Mask
2. Magic Face oil
3. Magic setting spray
4. Perfect face Mas
5. Magic M remove

Key findings: what are top 5 brand and what type of products the make any same
Products make any brand.

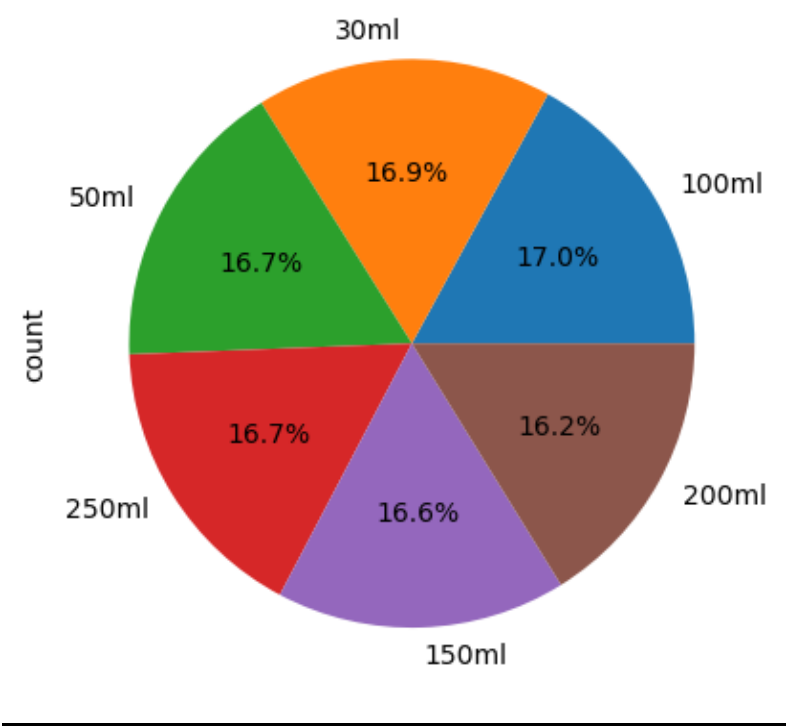
Top 5 brand suit on which skin type and there gender?

Brand	Skin_Types	Gender	Total counts
Milk Makeup	Dry	Female	26
Milk Makeup	Combination	Female	37
Milk Makeup	Oil	Female	34
Milk Makeup	Sensitive	Female	27
Milk Makeup	Normal	Female	24
Milk makeup	Dry	Male	0

Key findings:

Top brand suit on which skin type and what are there skin type and also gender what are there total value counts.

which product size sales most what are there number of reviews and ratings?



Which Product size sell most & what are there packing type?

Packaging Type	Bottle	Compact	Jar	Spray	Stick	Tube
Product Size						
100ml	421	432	424	427	450	397
150ml	420	383	433	436	422	393
200ml	425	395	418	406	398	381
250ml	403	419	433	402	422	419

Key Finding: In this I have find out which product size are used most by people
Which packing are selling most.

- which type 5 product used by male and there packing type and what are the main ingredients in that?

☐ Ingredients

- ☐ Retinol= **2180**
- ☐ Glycerin= 2174
- ☐ Vitamin C= 2168
- ☐ Salicylic Acid= **2149**
- ☐ Shea Butter= 2148
- ☐ Aloe Vera= 2091
- ☐ Hyaluronic Acid= 2090

Products

- Divine BB Cream
- Divine Blush
- Divine Bronzer
- Divine CC Cream
- Divine Cleanser

Packing_Type

- Spray
- Stick
- Jar
- Stick
- Stick

Key Findings:

Which Ingredients are sell most & which top product are used by male and also which packing type they are used most by the male candidates .

Recommendation Analysis

```
In [*]: Customer_details('Rutuja')

Enter Your skin:Dry
Enter your Gender:Female
Enter your Categorie:Face Mask

Enter your Rating 4.1
```

```
In [31]: Customer_details('Rutuja')

Enter Your skin:Dry
Enter your Gender:Female
Enter your Categorie:Face Mask
Enter your Rating4.1

Out[31]: 9          Perfect Bronzer
5210         Ultra Exfoliator
6221         Magic Eyeliner
8825         Divine Makeup Remover
10248        Magic Setting Spray
10283        Ultra CC Cream
13593        Magic Setting Spray
14752        Magic Cleanser
Name: Product_Name, dtype: object
```