

# Analysis of the <Product> Reviews on the <Distributor's> Website<sup>1</sup>

## Goals

- Extract essences, which are important for the customers.
- Identify customers' sentiment (positive/negative) to the extracted essences.

## Extracted Groups of Essences Important for Customers

The following groups of essences were extracted:

- 'Usage' - 2232 reviews ;
- 'Effect' - 1977 reviews;
- 'Feature' - 1642 reviews;
- 'Aroma' - 1555 reviews;
- 'Hydration' - 1077 reviews;
- 'Package' - 446 reviews;
- 'Brand' - 158 reviews.

Please, note, that the groups are interconnected and sometimes there are very thin borders between the groups. Also, every group is not closed, i.e. one review may be included in several groups.

## Executive Summary

In the order of importance/popularity among the customers:

- **Usage:** customers find the <product> especially useful in winter times;
- **Effect:** the most important effect for the customers is fresh/refreshed feeling in the morning after the night when the mask was applied. Customers are satisfied with this. Also, the customers like that their skin is glowing. But some of the customers did not see any difference and the customers with sensitive skin do not like the product.
- **Feature:** it is very important for the customers, that the mask makes their skin soft and smooth, and the customers like it a lot. But some customers noticed and disappointed with the sticky and oily texture of the product. Also, it seems like the customers are not price-sensitive: if a customer says that the product is expensive, she is not disappointed with the product.
- **Aroma:** the product's smell is a very important topic for the customers, they write a lot about it. The overall mark is low, it seems like the customers on average do not like the smell. It is highly recommended to pay more attention to this topic.
- **Hydration:** this topic is also very important for the customers - a lot of reviews are dedicated to hydrating. On average the customers are satisfied with the hydrating effect.
- **Package:** customers are not interested in a package and its design, but those, who wrote about it are satisfied. Some customers did not like that the sample is small.

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<sup>1</sup> [<link to the product page>](#)

- **Brand:** a brand topic is not interesting for the customers, but those who wrote about <brand name> like the brand. It should be noted that usually, customers misspell the word <correct brand name> (write <incorrect brand name> instead).

## Overview of the Groups of Essences

### Usage

'Usage' group doesn't provide a lot of insights, but it exists because customers write a lot about how they apply the product. The customers write that they apply the mask before night and usually feel good in the morning after. All of the essences in this group have a high star rating. Separately should be noted, that the customers find this product especially useful in winter times.

### Effect

One of the most popular essence in the 'effect' group is dedicated to the fresh feel after application: 'refresh' token - 110 reviews; 'fresh' token - 91 reviews; 'refreshing' token - 56 reviews; 'refreshed' token - 38 reviews. And all of the star ratings for the 'freshness' tokens are above 4.5. The fresh feeling in the morning (after the mask application) is important for the customers and they love this feeling.

Also, the customers are very satisfied with their skin glowing (after the mask application): 77 reviews with a 4.78-star rating.

It should be noted that the most popular essence in the 'Effect' group is 'difference': 345 reviews with 3.66 average star rating: customers wrote that they feel no difference before and after the application of the mask and they are not happy with that.

Also, most of the customers, who said that their skin is sensitive are not happy with the product effects: 144 reviews with a 3.43 average star rating.

### Feature

Two very important features for the customers, which customers like: (1) the mask makes the skin soft and (2) the mask makes the skin smooth. 'Soft' - 664 reviews with 4.58 average star-rating; 'smooth' - 384 reviews with 4.56 average star-rating.

Two very important features for the customers, which customers do not like: (1) the texture of the mask is sticky and (2) the texture of the mask is oily. 'Sticky' - 151 reviews with 3.80 average star-rating; 'oily' - 138 reviews with 3.93 average star-rating.

An interesting insight: not a lot of customers saying something about the price, but those who named the product 'expensive' also provided high star-rating: 39 reviews with an average 4.76-star rating. Seems that the customers understand that the price is high, but they know and happy with what they are paying for.

### Aroma

The product's smell is a very important topic for the customers: mentioned in 1555 reviews, and 'smell' is a TOP1 among informative essences. But it seems that at average customers are not happy with the product's smell: the average rating of the reviews with the 'aroma' label is 3.79. Of course, there are customers, who love it, but there are a lot of customers, who don't like it at all (e.g. 73 'weird smell' phrases with a 3.84 average star rating, and customers said that it smells like cigarettes in 33 reviews with a 2.52 average star rating).

## Hydration

The 'hydration' group doesn't provide a lot of insights. Actually, it should be a part of the 'effect' group or the 'feature' group, but the hydration topic is very popular among the clients, hence a separate group was created. The average reviews star rating is 4.20, hence it seems that the customers are rather satisfied with the hydration effect.

## Package

The total amount of reviews dedicated to the package is 446 and 104 of them are related to the <distributor name> bag, this amount is not enough for a separate group and it was created by request. Hence customers are not interested in the package a lot, but those who are interested seem to be rather satisfied - 4.16 average star rating for the group (<distributor name> bag related comments excluded). 67 customers are disappointed with the small sample size: 3.88 average star rating.

## Brand

There are only 158 brands-related reviews, hence the brands are not an important essence for the customers. 50 of the brands-related reviews relate to <brand name>, their average star-rating is 4.24, hence on average customers like <brand name>. It is interesting that customers usually misspell the brand name: <incorrect brand name> - 31 occurrences; <correct brand name> - 19 occurrences.

## Approach Details

- Collect a corpus of words (classic NLP technic) and count each word (hereinafter- "token") occurrences;
- Leave the most popular tokens: tokens with occurrences below 30 were not considered for further analysis;
- Filter tokens by informativity: tokens which do not provide useful information were not considered for further analysis;
- Group tokens by their meanings and label each review with the corresponding group;
- Estimate average token star-rating and average group-star rating to define customers' sentiment.

Best Regards,

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