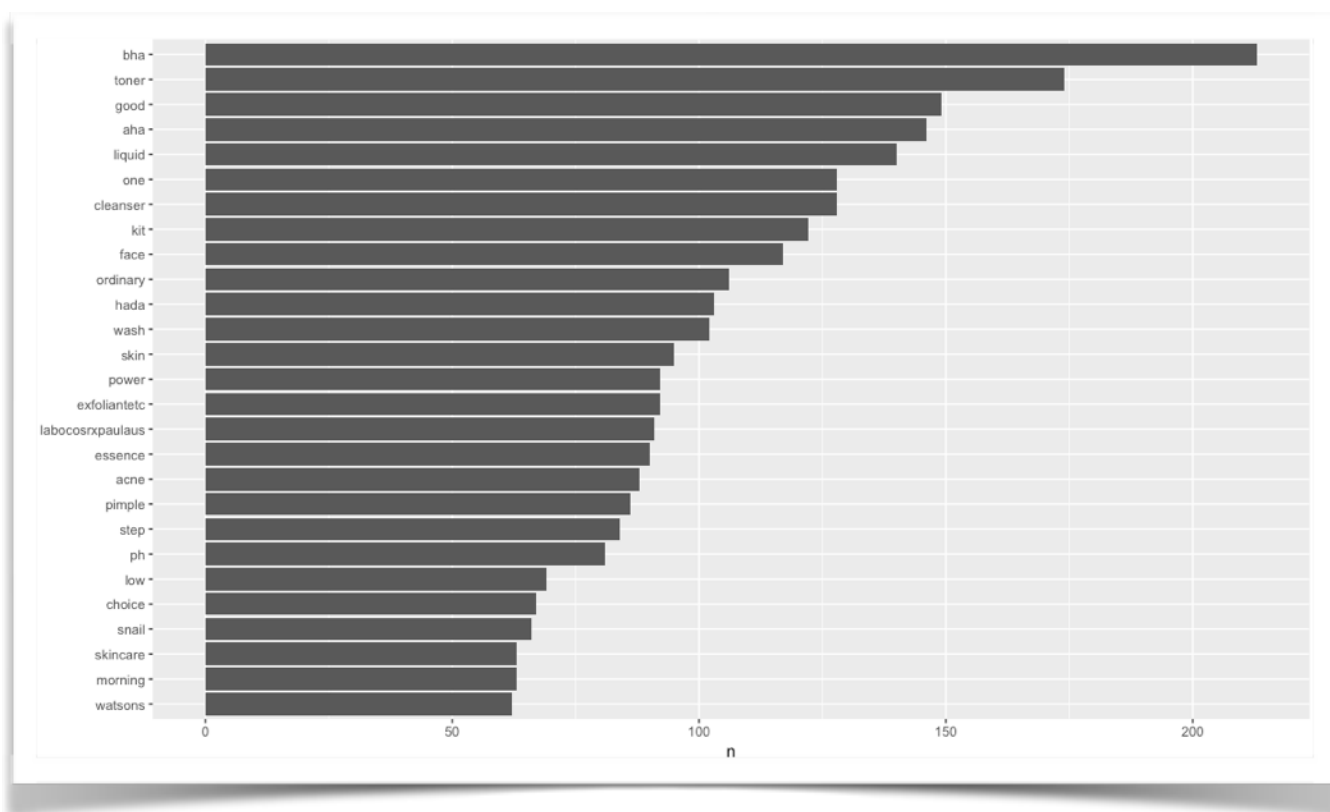


Statistical Analysis

COSRX Twitter Sentiment Analysis

By Cate de Leon

Taking a look at the most frequent words (after removing stopwords and gibberish) is the first step to seeing what is most crucial to the conversation about a particular topic — in this case Korean cult-fave beauty brand, COSRX.



Immediately we see that BHA's frequency is the highest among the top words, with more than 200 appearances. BHA (beta hydroxy acid) is an exfoliating skincare chemical that is typically used to treat acne, as it is oil soluble and able to penetrate pores and clear them out.

This is followed by the words “toner” and in fourth place AHA—alpha hydroxy acid, which exfoliates the surface of the skin, leading to less dead skin cell build up, which can lead to irritation. These three top words form the name of one of COSRX's bestselling products, the **AHA/BHA Clarifying Toner**, which helps to clear skin blemishes, both on the surface and beneath.

Next is the word “liquid” which is also attached to the words BHA and AHA in other COSRX product names (i.e. **BHA Blackhead Power Liquid** and **AHA 7 Whitehead Power Liquid**), which also clarify the skin.

Going back a bit, the #3 word is “good” which is part of COSRX's bestselling facial wash, the **Low pH Good Morning Gel Cleanser**.

At number 6 and 8, we have the words “one” and “kit”, which are part of the product names **One Step Clear Pads** and **One Step Pimple Clear Kit**.

Going downwards from #10, we start to see the competition brands that are most often pitted against COSRX, such as **The Ordinary** (10), **Hada Labo** (11) which is known for its face washes (9 and 12), and **Paula's Choice** (16).

Moving down further on the top words, we continue to see words that are part of previously mentioned products and brands: **power** (14), **step** (20), **ph** (21), **low** (22), **choice** (23), and **morning** (26).

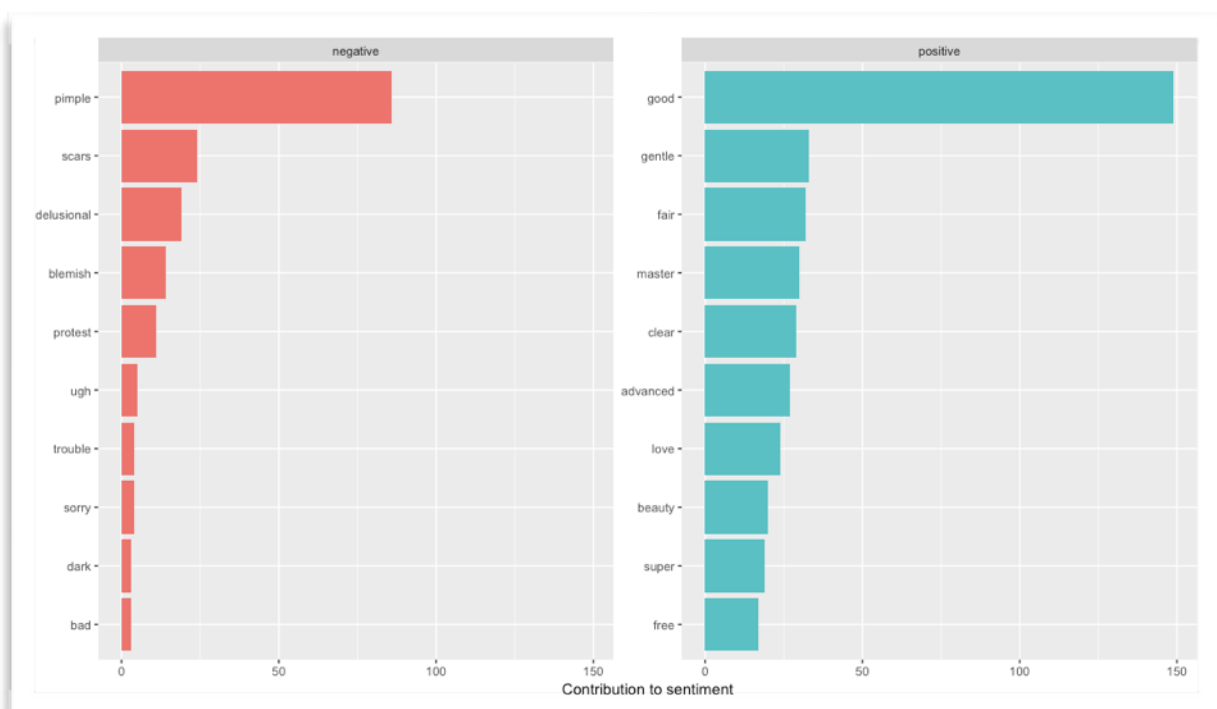
In addition, we have **exfoliant** (15), which describes what BHA and AHA essentially are. We have **essence** (17) and **snail** (24), which are part of the COSRX product name **Advanced Snail 96 Mucin Power Essence**. Snail Mucin is known for its ability to hydrate and heal the skin, which complements pimple treatments and helps heal acne scars.

We also see another pimple fighting product at numbers 18 and 19—**acne** and **pimple**—which are part of the product **Acne Pimple Master Patch**. These are stickers that draw out the gunk from blemishes and help heal pimples faster overnight.

At last place, with a little over 50 words, we have **watsons**, which is a drugstore/pharmacy where a lot of beauty products can be bought.

Most frequent negative and positive words

A graph of the most frequent negative and positive words supports the previous findings. It's also important to note that many of these words are part of brand names or mention skin problems themselves, rather than being reviews or sentiments about the brand itself.



For negative words, pimple and scars emerged on top, which is consistent with what the top products in the previous graph address. In the positive column, we have again **good**, **master**, **clear**, and **advanced**.

Words that seem to be opinions about products are **delusional**, **protest** (a quick search on Twitter reveals that this most probably refers to the reaction of the skin to products, as in “My skin didn’t protest.”), **ugh**, **trouble** (most probably a review on how convenience of usage), and **sorry**.

In positive opinions, we have **gentle**, **fair**, and **love**.

Again, a quick search on Twitter reveals that the word **free** is often used to describe the absence of harmful chemicals in the ingredients (e.g. alcohol-free, paraben-free); **super** is quite versatile, describing anything from skin type to product price (e.g. super dry, super affordable), and even competing products, like **Innisfree's Super Volcanic Clay Mask**. The word **beauty** is usually a hashtag for the topic of beauty itself.

A quick glance at the graphs also reveals that there are more positive than negative words in the corpus, even after accounting for product names and skin problems. This is a cult-fave brand after all.