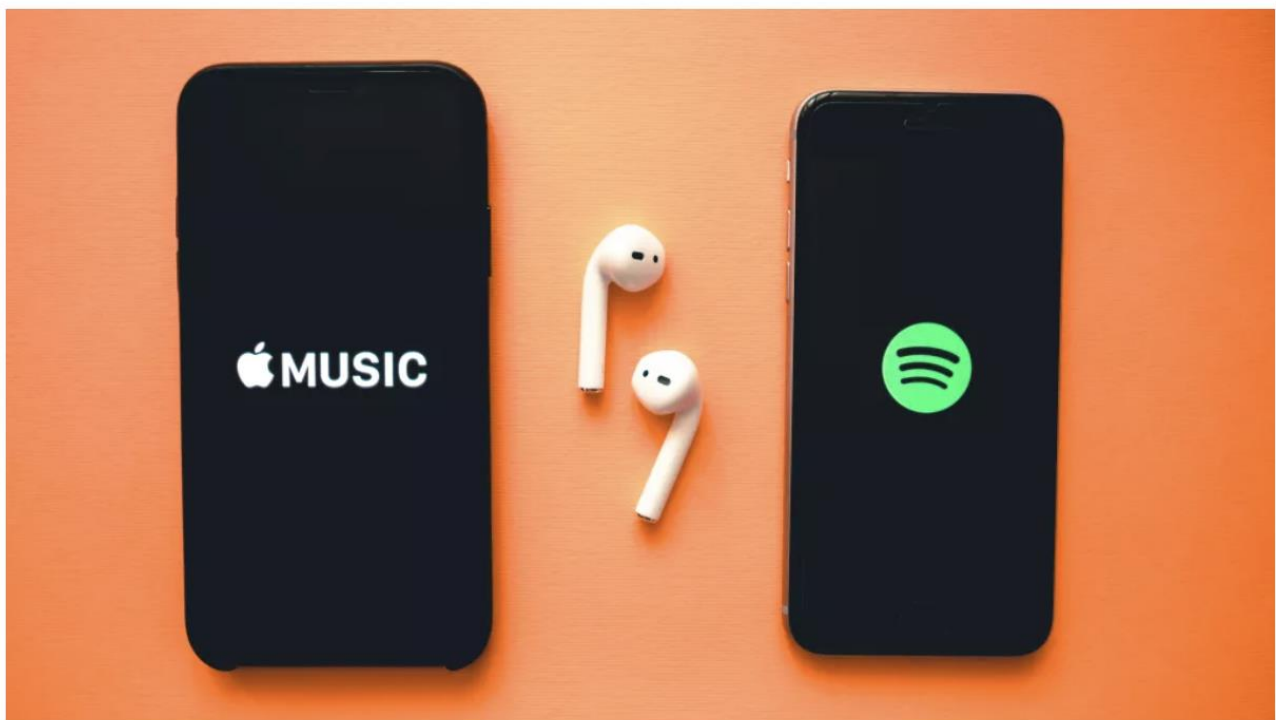


Spotify | Apple Music: A Social media Sentiment analysis

The Context:

Choosing a music streaming service used to be much more complicated. For example, Taylor Swift might have been on Apple Music but not on Spotify; Tidal was originally weighted toward hip hop. Nowadays, these services' libraries all look pretty much the same, offering mirror-image catalogues of millions of songs and playlists, and they generally all release new albums at the same time.

The things that separate streaming services today are the quality of music discovery—whether it's based on algorithms or human curation—the user experience on desktop and mobile apps, what devices you can use them with, and their sound quality. Most of them have free tiers, but the experience improves if you subscribe and pay a monthly fee.



(Image credit: Shutterstock)

Apple Music and Spotify are the two most widely used music streaming services across the world primarily in the United States. But, when it comes to the countries like India, they are up against each other in a very tight space. Apple music has launched its lossless audio streaming service and spatial audio whilst Spotify has been upping its game in terms of podcast shows which is quite a big gig among the millennials.

The Objective:

The objective is to Assume the role of a social media analyst and you want to understand how consumers have spoken about your firm and your competitor for a particular timeline. Here, we are in the shoes of social media analyst from Spotify trying to do a brand comparative analysis with the competitor Apple Music.

Data Collection:

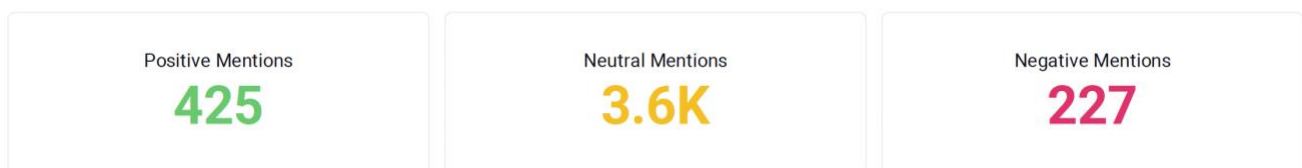
For the purpose of gathering relevant data, twitter has been used. Tweets from different users in India has been collected over a period of one year (Feb 16, 2021 – Feb 15, 2022) for the Apple music using keywords like **Apple music**, **Lossless audio** from the tweets across India in the English language. This data consists of approximately **4.27K** tweets for the specified filters. For Spotify, the same process has been followed by using keywords like **Spotify**, **Podcasts** over a period of Dec 25, 2021 – Jan 8, 2022, which resulted in a total tweet count of **9.88K**.

This data has been used for performing the competitive analysis in order to understand how the users are perceiving these services as a brand and what are the things that they like/dislike about so that a better informed decisions can be taken to deliver better services and outperform the competition.

Initial Analysis:

From the initial exploration of data we could see that the sentiment distribution of tweets as follows:

Apple Music:



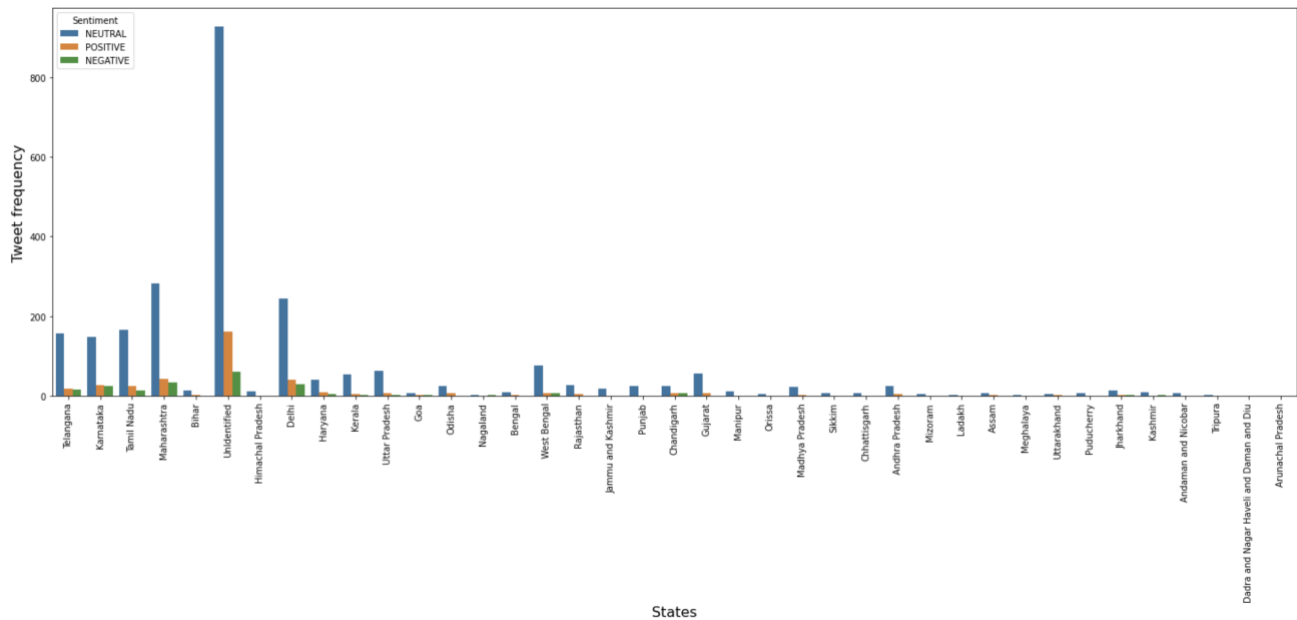
Spotify:



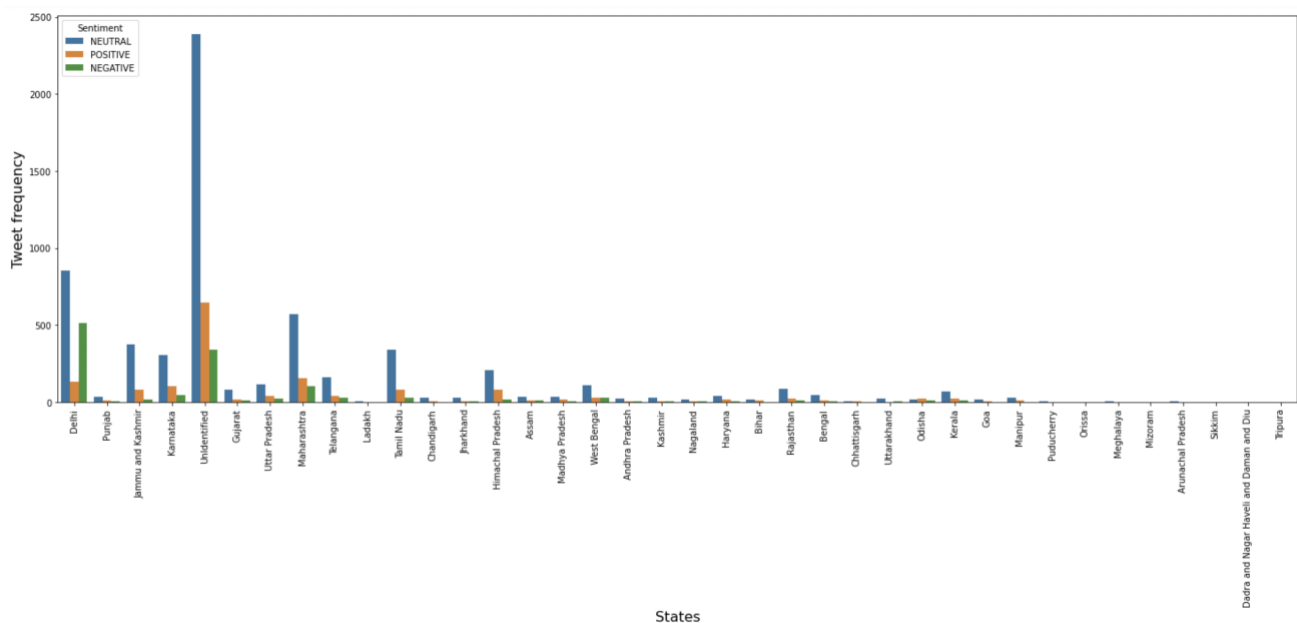
There is not a clear understanding that can be derived just by looking at this sentiment distributions. Hence in-depth analysis is being carried further.

Geographical distribution of tweet frequencies has been analysed along with their sentiments in order to understand the most active user base across the country for both the services.

Apple Music



Spotify



From the above analysis, we can see that most of the negative sentiment tweets are coming from the states of Delhi, Jammu and Kashmir and Maharashtra for Spotify where as for Apple Music, they are coming almost equally from the states of

Telangana, Karnataka, Tamil Nadu, Maharashtra and Delhi. This gives a better understanding of what might be causing the negativity, as the content being offered across the platforms is from the attributed regions. Thus regional content in fact plays a major say in the overall preference of a user.

Text Cleansing Process and Analysis:

- Further the tweets have been pre-processed by removing the mentions and emojis for better insights.
- Stop words has been removed and then the tweets are lemmatized.
- Adjectives from each tweet has been collected as those are the words which best describes the emotion of the tweet.

After performing the above mentioned process on both the data sets, we could see the below word clouds.

Apple Music:



Positive



Negative



Neutral

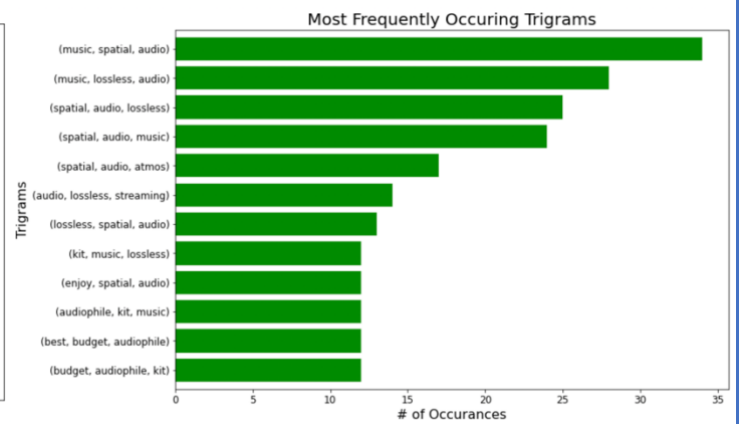
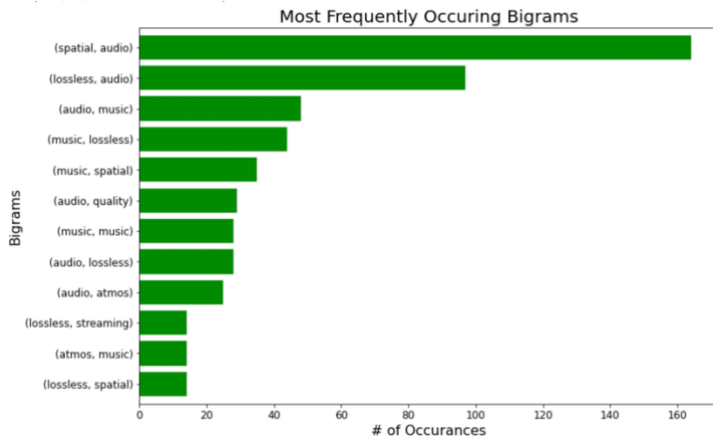
[illegible][illegible][illegible]

- Spotify users are enjoying the experience with the profile curation and everyday suggestions. They are also happy about the new content being offered for every profile. But, the negativity comes from the users who are not happy with the content which they feel is illegally curated. Also, there are issues with the explicit content on offer and the high premiums for the Premium profile on the platform. Neutral sentiment consists of the same overlapping issues like copyrights, unreleased tracks yet, shareability and the Spotify yearly Wrapped.
- On the other hand, Apple Music users are significantly happy about the Spatial audio format, which is exclusive to Apple music. Lossless audio quality introduction has helped them to gain much users as the price has been affordable and its telling obviously from the word cloud statements. Good number of songs which are available across Android devices helped in gaining better positive sentiment across the users on the platform. When it comes to the negative sentiment, the boon has come back to bit them here since Spatial audio is limited to certain Apple products only. Also, the lossless music is amongst the negative sentiment as it requires to be listened in wired format and there is no hardware which supports that on iPhones and the users had to shell out extra money for that flexibility.

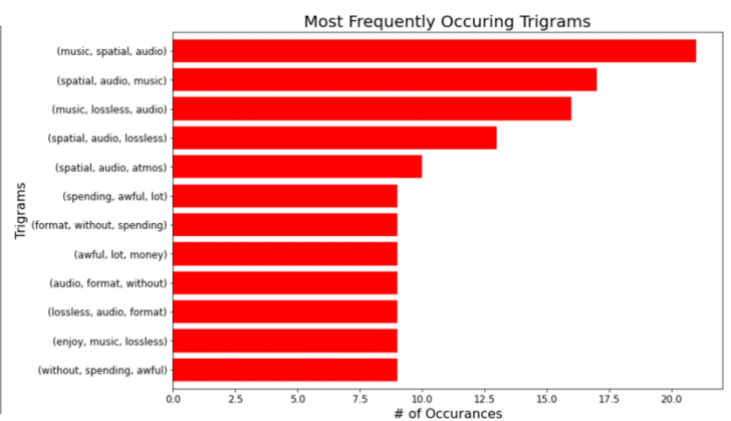
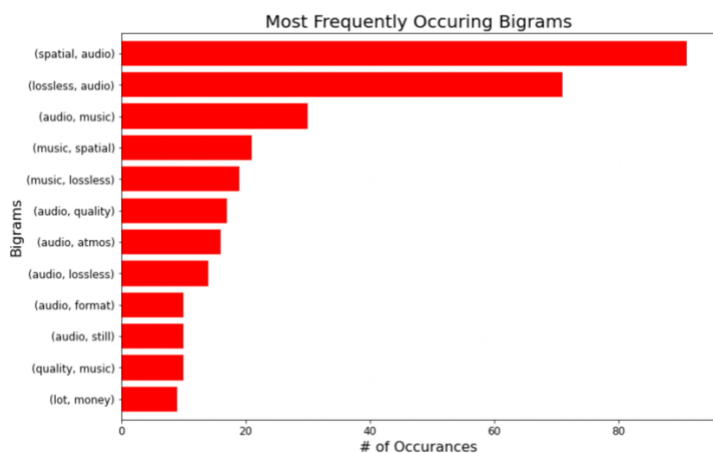
An in depth analysis of the tweets across sentiments complements the previous insights drawn as it is evident from the below mentioned comparisons of n-gram analysis.

Apple Music:

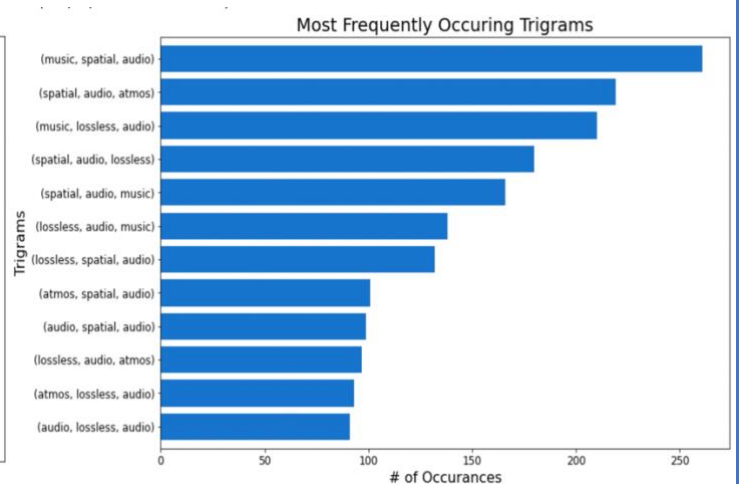
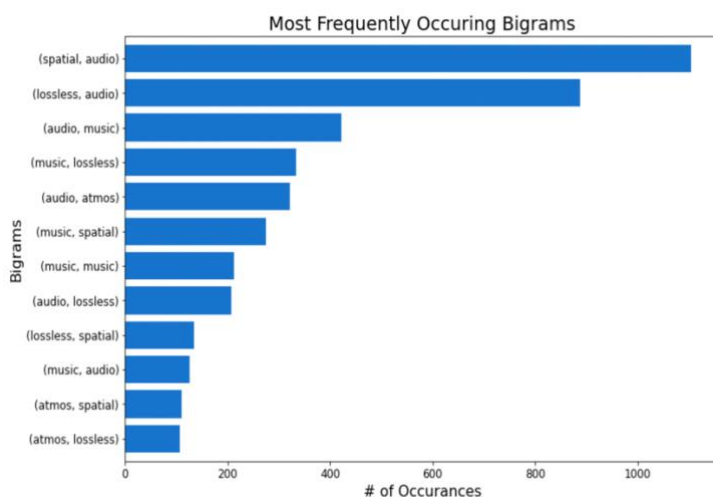
Positive:



Negative:

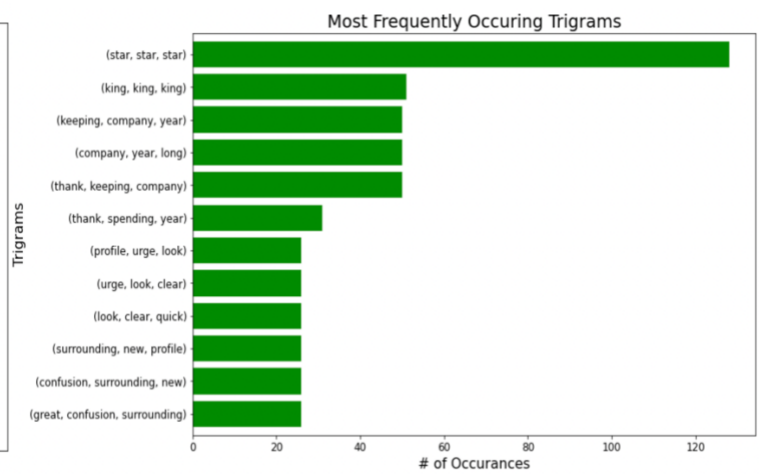
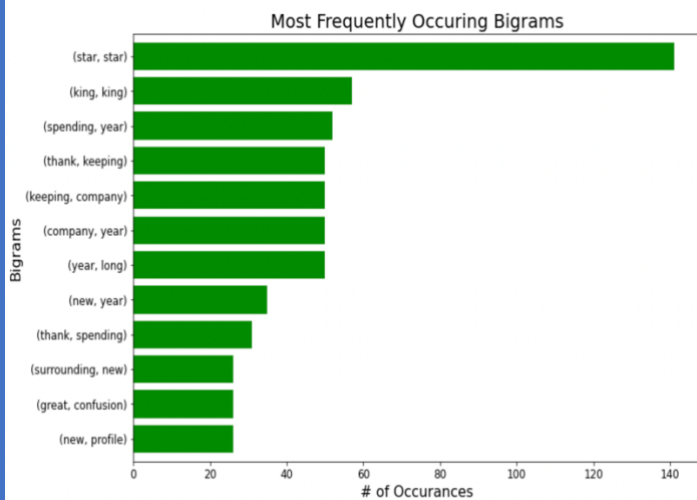


Neutral:

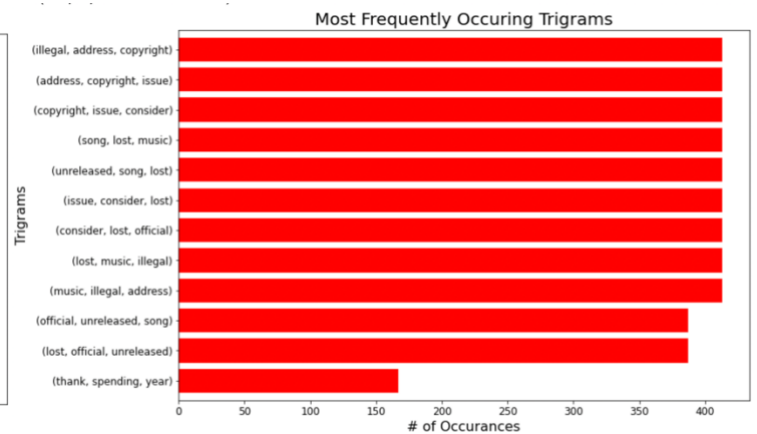
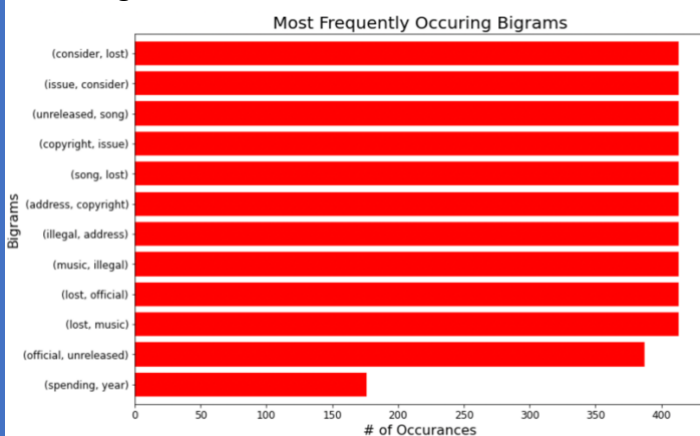


Spotify:

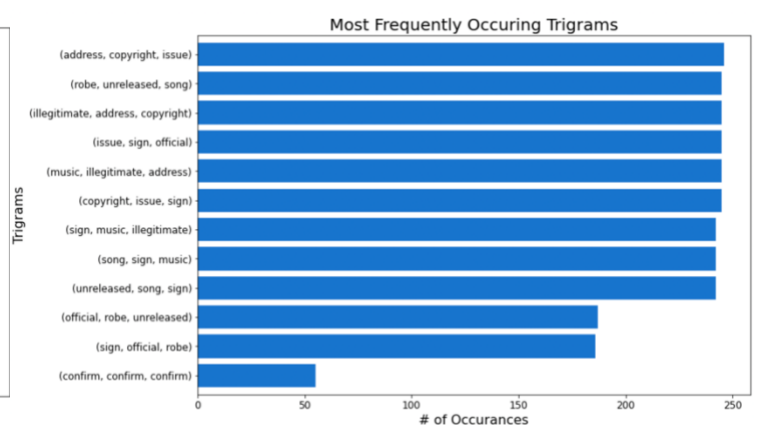
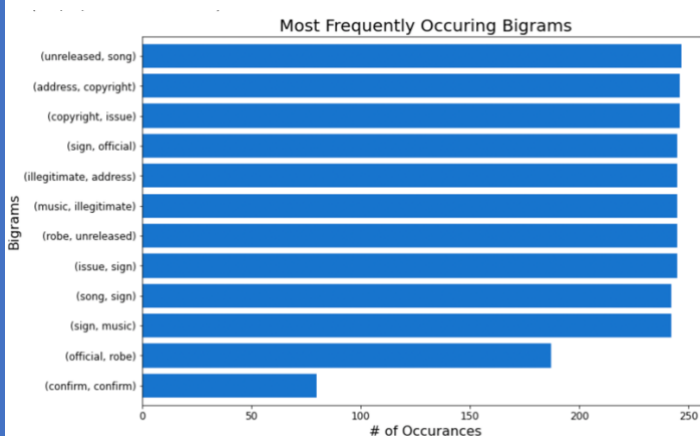
Positive:



Negative:



Neutral:



Sentiment Analysis:

Sentiment analysis has been done using both the data sets in order to determine the effective sentiment for each of the firms as compared to the extracted sentiment so that the insights that has been derived from the analysis can be validated against.

This has been done using two lexicon-based approaches.

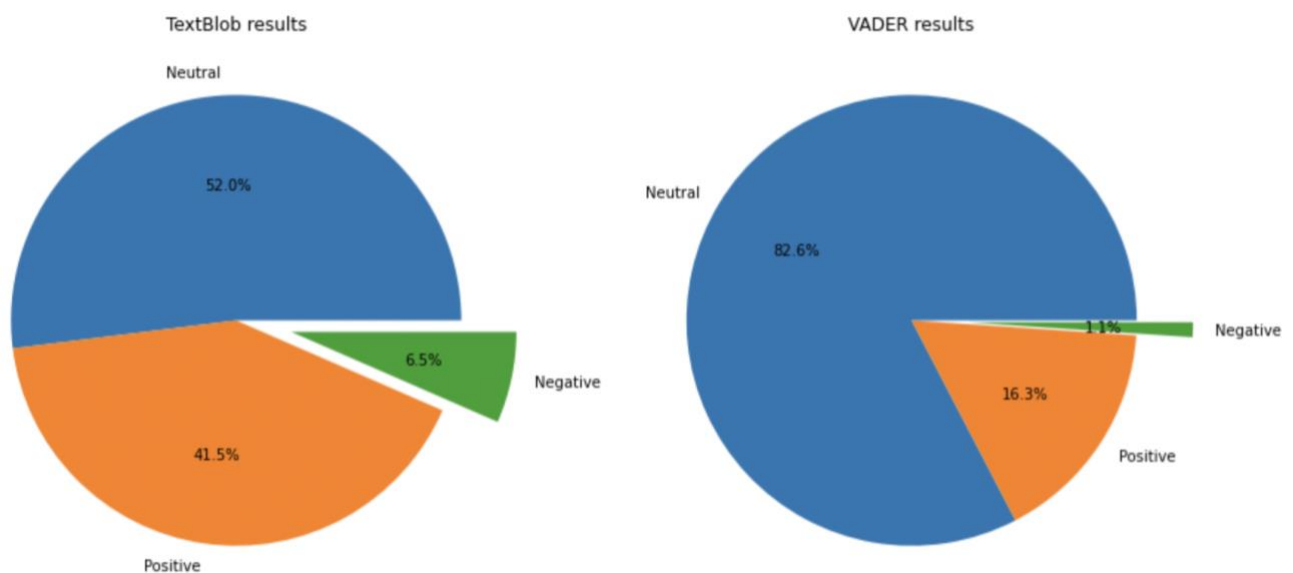
1. TextBlob
2. VADER

TextBlob is a Python (2 and 3) library for processing textual data. It provides a simple API for diving into common natural language processing (NLP) tasks such as part-of-speech tagging, noun phrase extraction, sentiment analysis, classification, translation, and more.

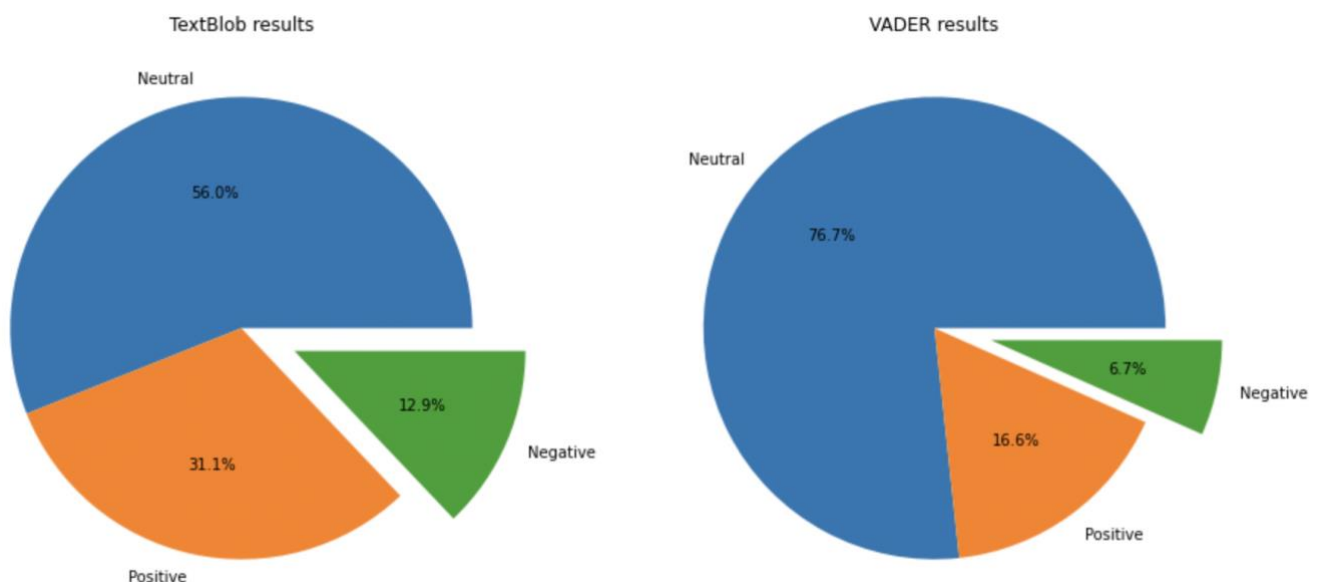
VADER (Valence Aware Dictionary and sentiment Reasoner) is a lexicon and rule-based sentiment analysis tool that is specifically attuned to sentiments expressed in social media.

Results:

Apple Music:



Spotify:



Way Forward:

- For the price Spotify is charging for a premium profile, the benefits that the users expecting or enjoying doesn't seem to be going hand in hand. There was a lot of negative sentiment associated with this as it can be observed from the analysis as well. Since the competitor is performing good in that area, there is more than imminent need to address this issue of listening to what users are expecting out of it.
- Spotify doesn't have the lossless audio feature in India yet and its time to get on that front as well in order to not loose users to the competitor along with the pricing strategy.
- One key issue that needs to be addressed is to take care of the originality of the content that is being curated to the users.