



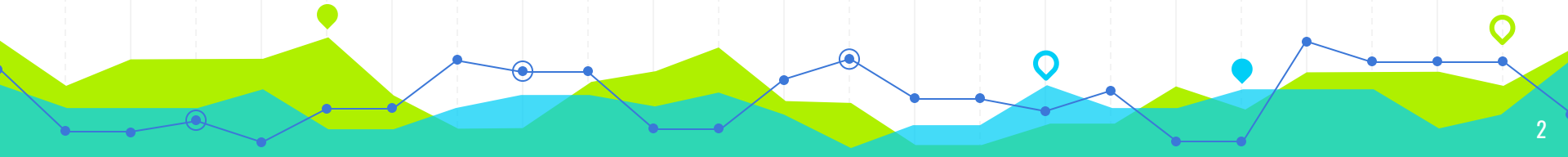
SOCIAL MEDIA ANALYSIS

SAMSUNG S8, IPHONE8, X

- ANUP, SATISH, SHALINI

Agenda

1. **Objective**
2. **Exploratory Data Analysis**
3. **Sentiment Analysis**
4. **Most liked/Disliked attributes**
5. **Price, Quality, Value Sentiment Comparison**
6. **Pre-launch vs Post-launch Comparison**
7. **Recommendations**





OBJECTIVE

Analyze the consumer posts, comments, and reviews on **Samsung Galaxy S8**, **iPhone 8**, and **iPhone X** models to identify pre/post launch sentiment around these products and provide recommendations to companies on their next releases





Data Preparation and EDA

1

Data Collection

Samsung Galaxy S8
Released March 29, 2017

Pre – launch data	Post – launch data
1-March-2017 to 29-March-2017(1M)	30-March-2017 to 30-June-2017 (3M)

iPhone 8 and iPhone X
Released Sep 22, 2017

Pre – launch data	Post – launch data
1-September-2017 to 22-September-2017 (22D)	23-September-2017 to 31-October-2017(1M)



Data Preparation and EDA - Stage 1



Data inspection

- Samsung: 50,008 records

Pre/Post : 42520/ **7485**

- Iphone : 19,529 records

Pre/Post : 9060/ **10469**

- 41 columns

11 Blank columns , 6 Sparse columns



Duplicate Removal

Remove any recurring tweets

Samsung: 28494 records , **43%** drop

Pre/Post : 23450/ **5044**

Iphone: 8894 records , **55%** drop

Pre/Post: 4766/ **4128**



Remove retweets

Keep 'Original' posts Removal Replies and Comments

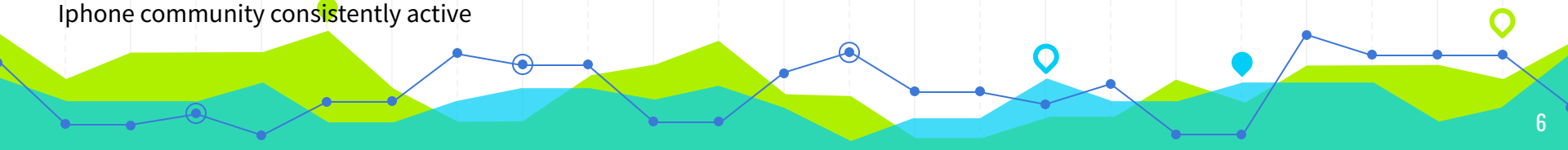
Samsung: 22323 records , **21%** drop

Pre/Post: 18163/ **4160**

Iphone: 6082 records , **32%** drop

Pre/Post split: 3311/ **2771**

Findings: Low Post release tweets for Samsung
Iphone community consistently active



Data Preparation and EDA - Stage 2



Filtering Influencers

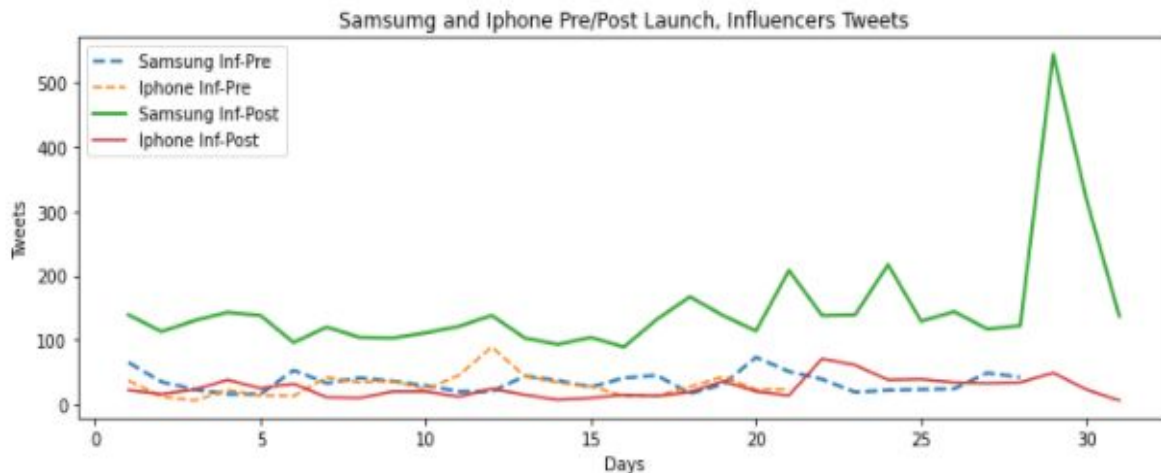
75 percentile has ~2000 followers or less

Samsung: 16743 records, **25%** drop

Pre/Post: 13554/ **3160**

Iphone: 4670 records, **23%** drop

Pre/Post split: 2521/ **2149**



Findings: Influencers activity peaks suddenly for Samsung. Perhaps to offset the damage done by bad publicity of S7.

Data Preparation and EDA - Stage 3



Tweets by Product

Samsung S8: 12086 records, **27%** drop

Pre/Post: 9869/ **2217**

Iphone(8 and X): 4221 records, **9%** drop

Pre/Post split: 2242/ **1979**



Categorize

Samsung S8: 12086 records

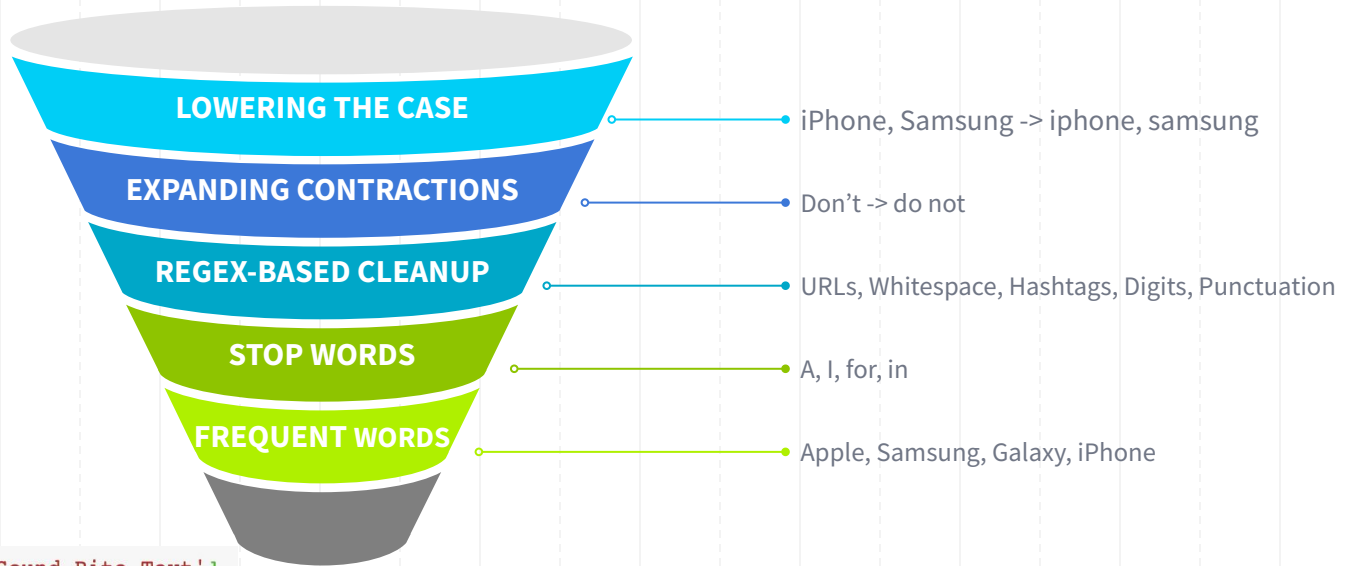
Iphone 8 : 3583 records

Iphone X : 638 records

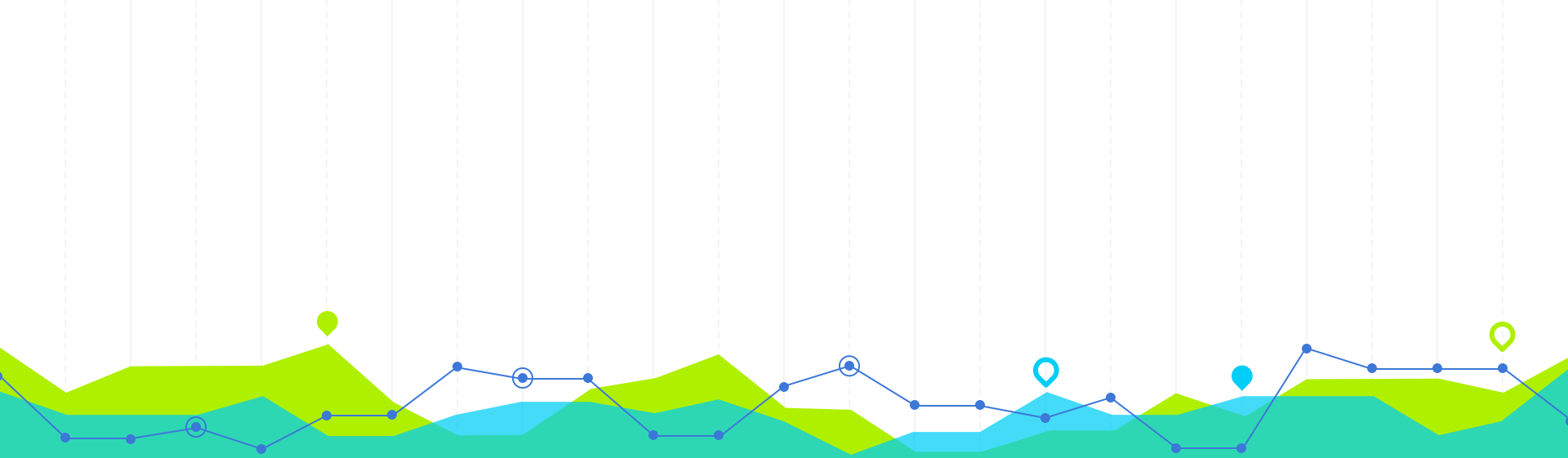
Findings: Very few tweets for Iphone X.

TEXT PROCESSING

```
combined_df['Sound Bite Text'].apply(textcleanup)
```



```
combined_df['cleaned Sound Bite Text']
```

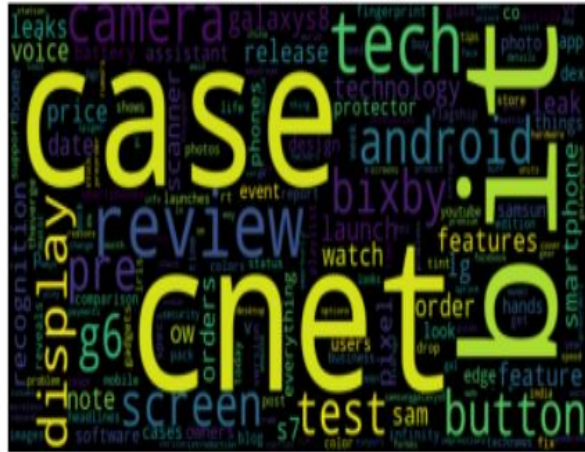


Sentiment Analysis

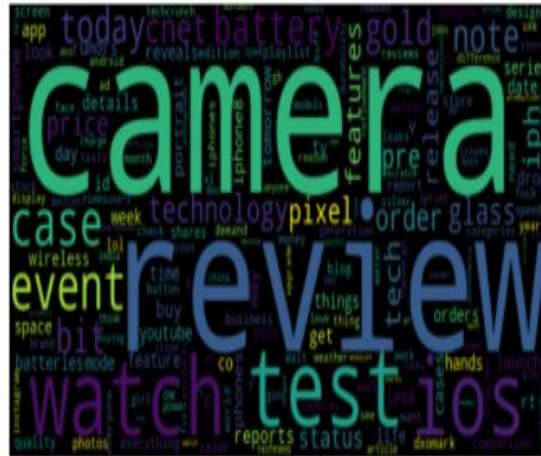
2

Word Cloud distributions for each phone

Word cloud of Samsung S8



Word cloud of Iphone 8



Word cloud of Iphone X



Selection of Sentiment Analysis models- TextBlob vs VADER

TextBlob - Works better with blog posts which are longer and more formal language

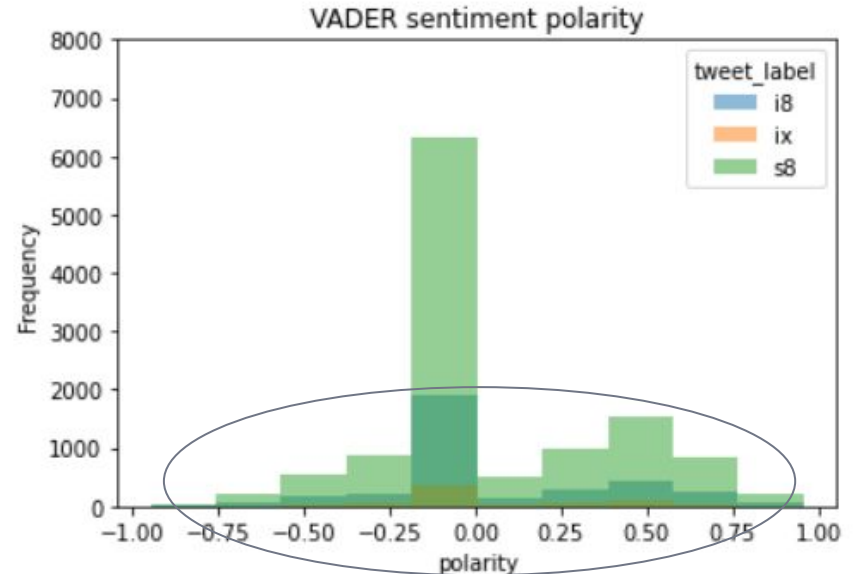
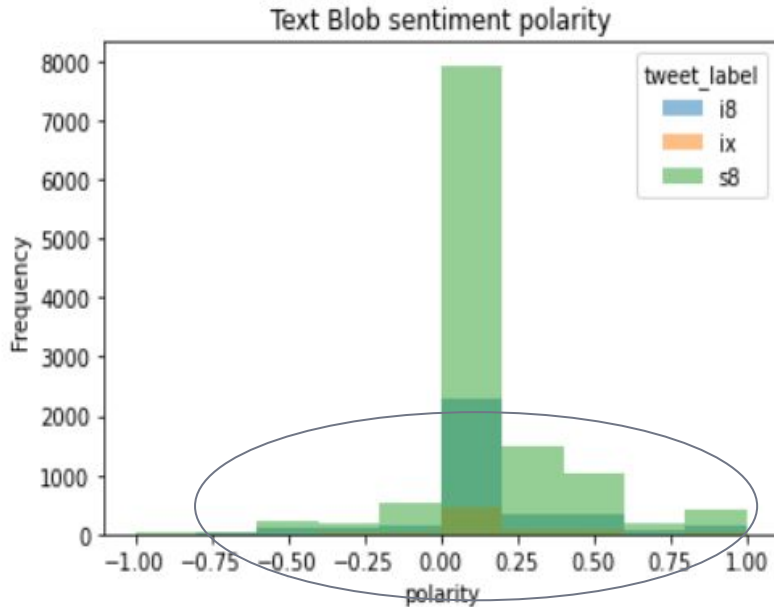
VADER - (Valence Aware Dictionary and Sentiment Reasoner) is optimized for social media data and things like slangs, and emojis

Interesting features -

- translating utf-8 encoded emojis such as 💖 and 😁
- understanding sentiment-laden initialisms and acronyms (for example: 'lol')

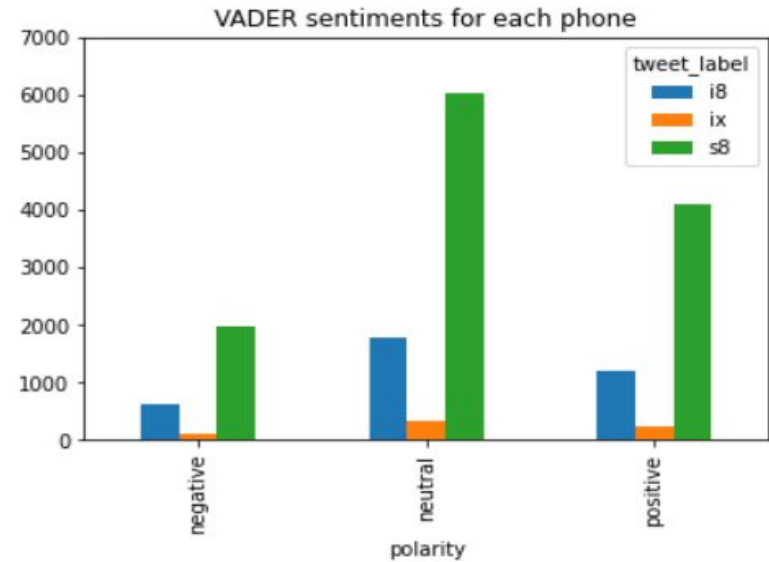
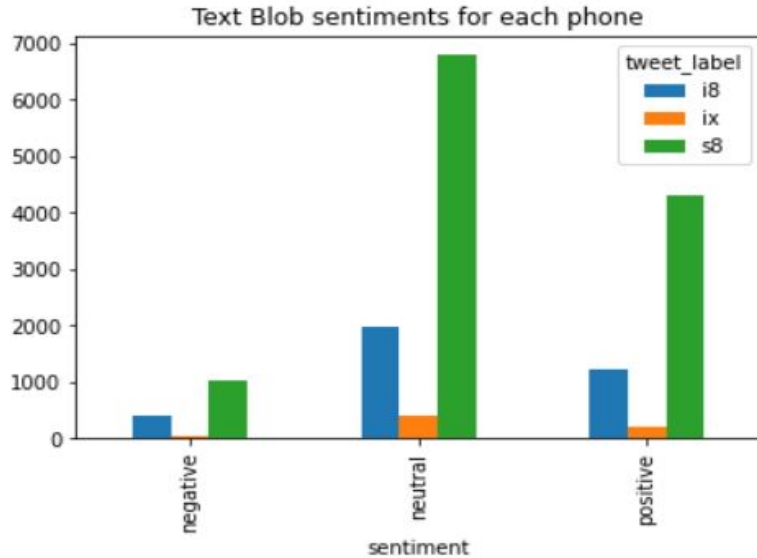
<https://github.com/cjhutto/vaderSentiment#features-and-updates>

Sentiment Polarity distribution- TextBlob vs VADER



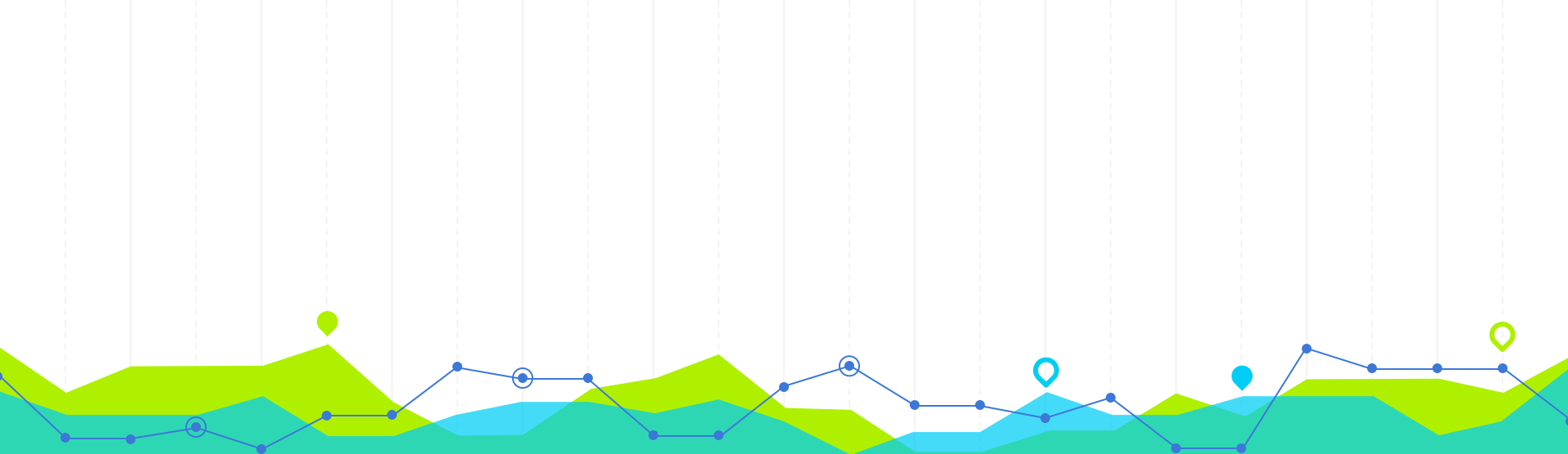
Findings: VADER is able to identify the polarity of tweets better than TextBlob by **6.14%**

Sentiment categorization for each phone - TextBlob vs VADER



Results: ~1000 additional Samsung s8 related tweets have been identified as negative sentiment by VADER

Positive(Polarity > 0), neutral(Polarity = 0), negative(Polarity < 0)



Most liked/Disliked attributes

3

MOST LIKED ATTRIBUTES FOR EACH PHONE

Samsung S8

review, case, tech, **camera**,
screen, g6, technology,
best, free, black, red, live,
full, facial

iPhone 8

best, top, **big**, goof,
unboxing, open, live, first,
great, **camera**, case, **gold**,
battery, pixel

iPhone X

live, unveils, **best**,
wireless, better, upgrade,
aapl, **specs**, **premium**,
top, event, watch, support,
cost

SAMPLE POSITIVE TWEETS FOR EACH PHONE

Samsung S8

I love galaxy s8 because of its **infinity display**
#WantTheGalaxyS8

iPhone 8

The iPhone 8 **camera** is impeccable

Watching all this iPhone 8 **unboxing** videos makes me want one so badly

iPhone X

#TuesdayThoughts are you excited for **wireless** charging on the iPhone 8 & iPhone X, or are you sticking with wired charging? ????

MOST DISLIKED ATTRIBUTES FOR EACH PHONE

Samsung S8

iris, leak, red, mashable, facial, **bixby**, bad, screen, **scanner**, **button**, reveals, drop, display, **photos**, **massive**

iPhone 8

small, hard, lower, touch, screen, low, upgrade, leak, drop, **battery**, **glass**, demand, status

iPhone X

leak, september, expected, gamble, **poor**, **production**, watch, **charger**, rumors, code, series, **release**, **smaller**

SAMPLE NEGATIVE TWEETS FOR EACH PHONE

Samsung s8

‘The Galaxy S8 **iris scanner** can be hacked with aging tech’

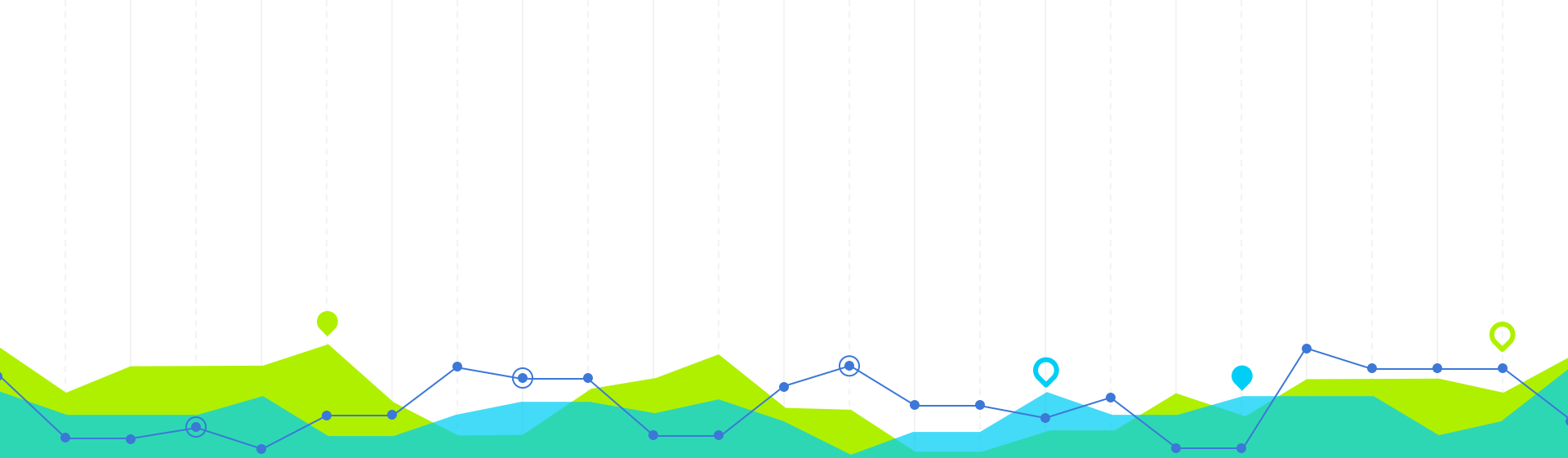
‘The Galaxy S8’s face scanning feature might make up for its **bad fingerprint scanner placement**’

Iphone 8

Breaking – Apple facing major problems with **battery** life and build quality in iPhone 8 via @ifanscom
ifans.com/breaking-apple
...

Iphone X

iphone 7: no charge
iphone 8: no home button
iphone x : **no charger**
iphone 10: ?
iphone 10+ : ?
#iPhone8Plus #IphoneX

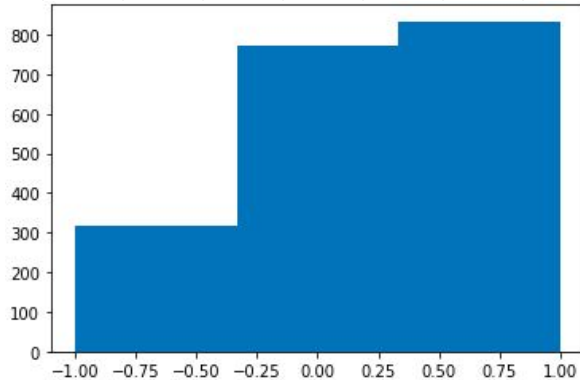


Price, Quality and Value Related Sentiment

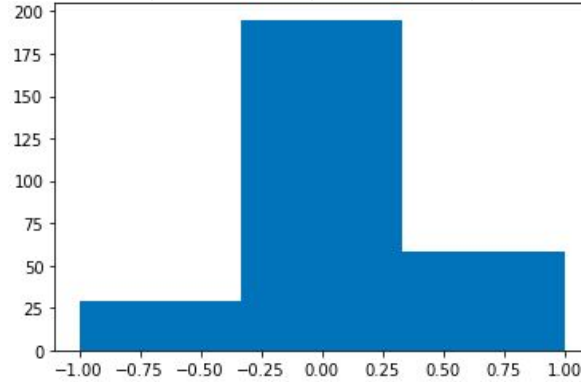
4

SENTIMENT OF QUALITY, PRICE AND VALUE FOR SAMSUNG

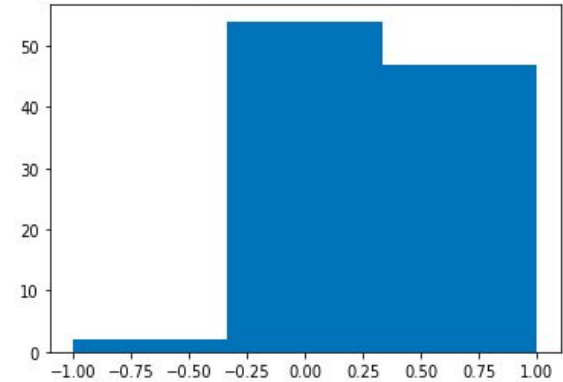
Quality



Price



Value



Insights: General brand perception for Samsung is that their phones are dependable and consistent.

SENTIMENT OF QUALITY, PRICE AND VALUE FOR IPHONE 8

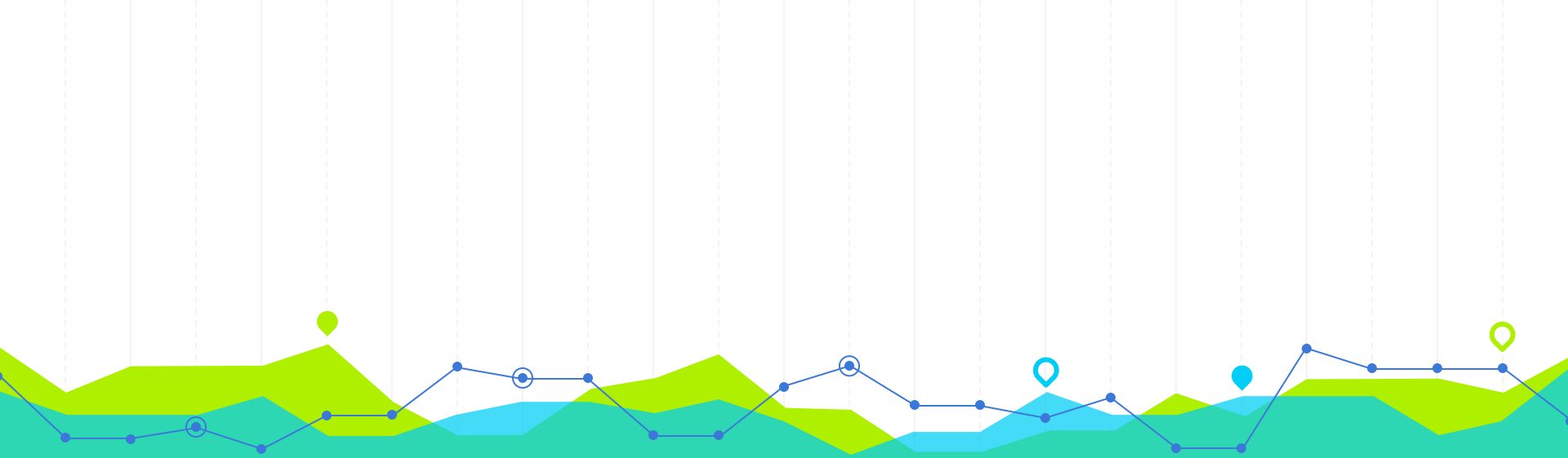


Insights: Strong positive sentiment for both quality and value, but mostly neutral with a slightly negative sentiment for the price

SENTIMENT OF QUALITY, PRICE, AND VALUE FOR IPHONE X



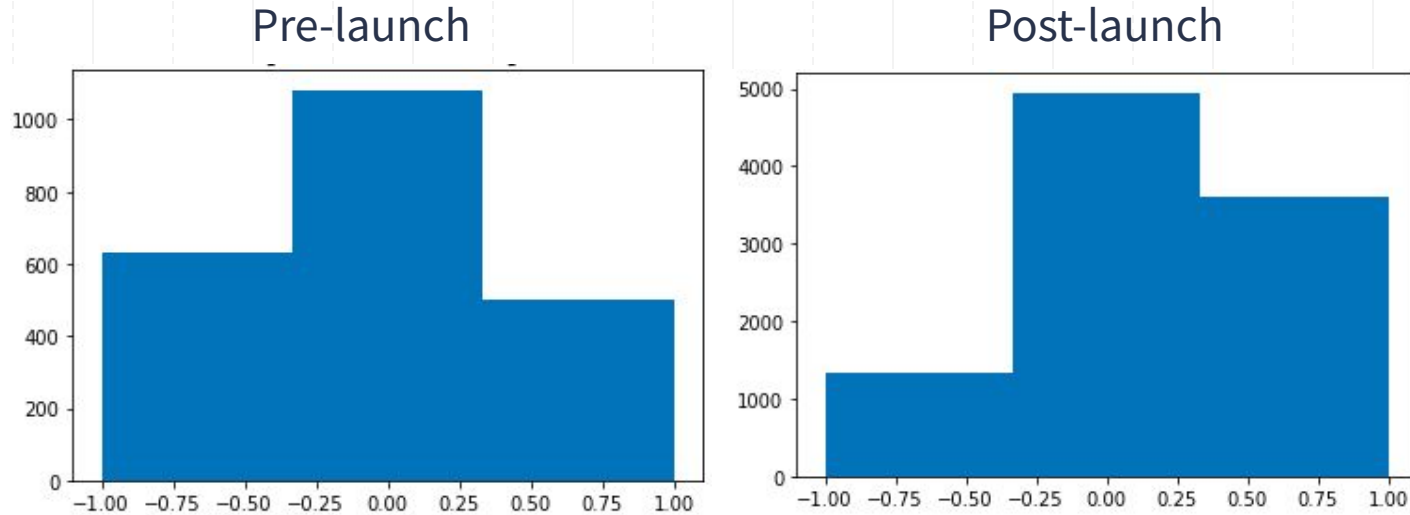
Insights: Unusually high positive sentiment for price, given the record high price point



Pre/Post Launch Comparison

5

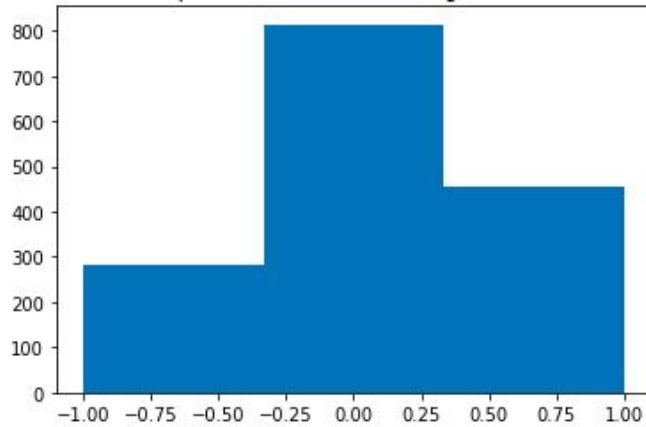
PRE AND POST LAUNCH SENTIMENT FOR SAMSUNG



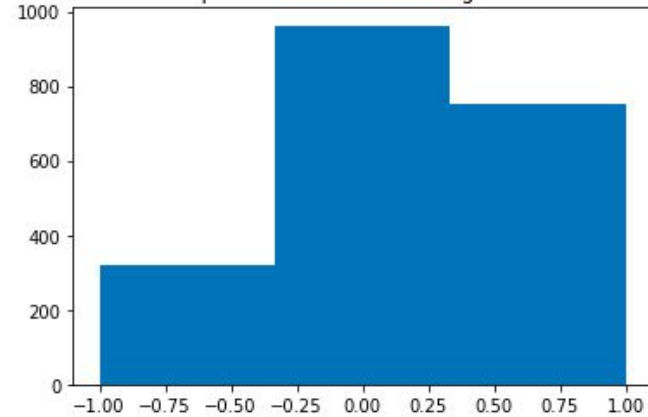
Insight: There were a lot of negative reactions to the previous S7 model, so the worry about the new model going the same way likely informed the negative sentiment before the launch

PRE AND POST LAUNCH SENTIMENT FOR IPHONES

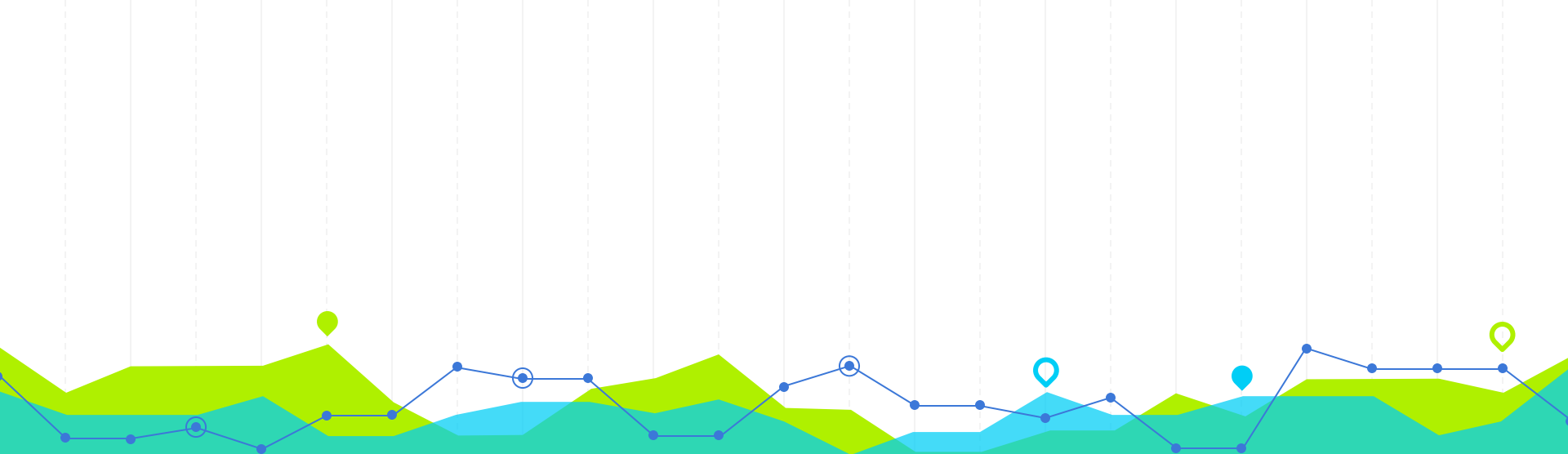
Pre-launch



Post-launch



Insight: Slight increase in positive tweets, from the excitement of the new look of the phone



Recommendations

6

RECOMMENDATIONS FOR SAMSUNG

Most promising features:

Android(free), screen, dual sim

Weaknesses:

Bixby, scanner, battery, facial recognition (iris)

Recommendations:

- Improvement upon voice assistant features
- Facial recognition instead of or in addition to fingerprint sensor



RECOMMENDATIONS FOR IPHONES

Most promising features:

Cameras, wireless charging, battery

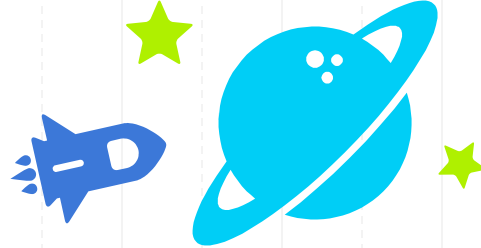
Weaknesses:

Cost, different adapters

Recommendations:

- USB-C charging to match other device chargers
- Lower price tier models to widen customer base





Q & A

Thank you for listening!

