

asos

TOPIC MODELING ON ASOS TWEETS

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AGENDA

- Project Introduction
- Data Acquisition
- Topic Modeling
- EDA
- Conclusion/ recommendations

ASOS ONLINE MARKET PLACE

ASOS plc is a British online fashion and cosmetic retailer. The website sells over 850 brands as well as its own range of clothing and accessories, and ships to all 196 countries.



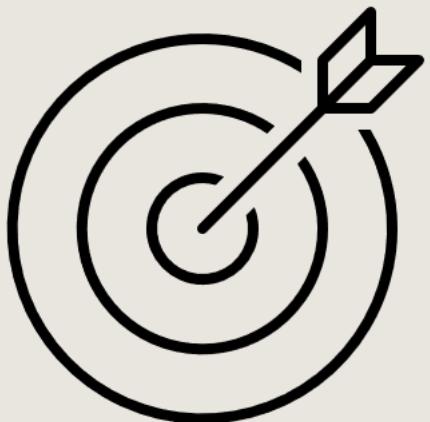
SENTIMENT ANALYSIS

- Sentiments are feelings, opinions, emotions, likes/dislikes.
- Sentiment analysis is an NLP task that aims to obtain the writer's feelings expressed in **positive** or **negative** text.

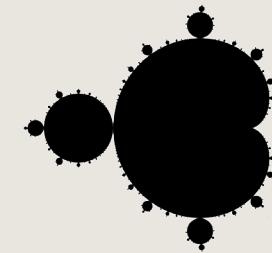


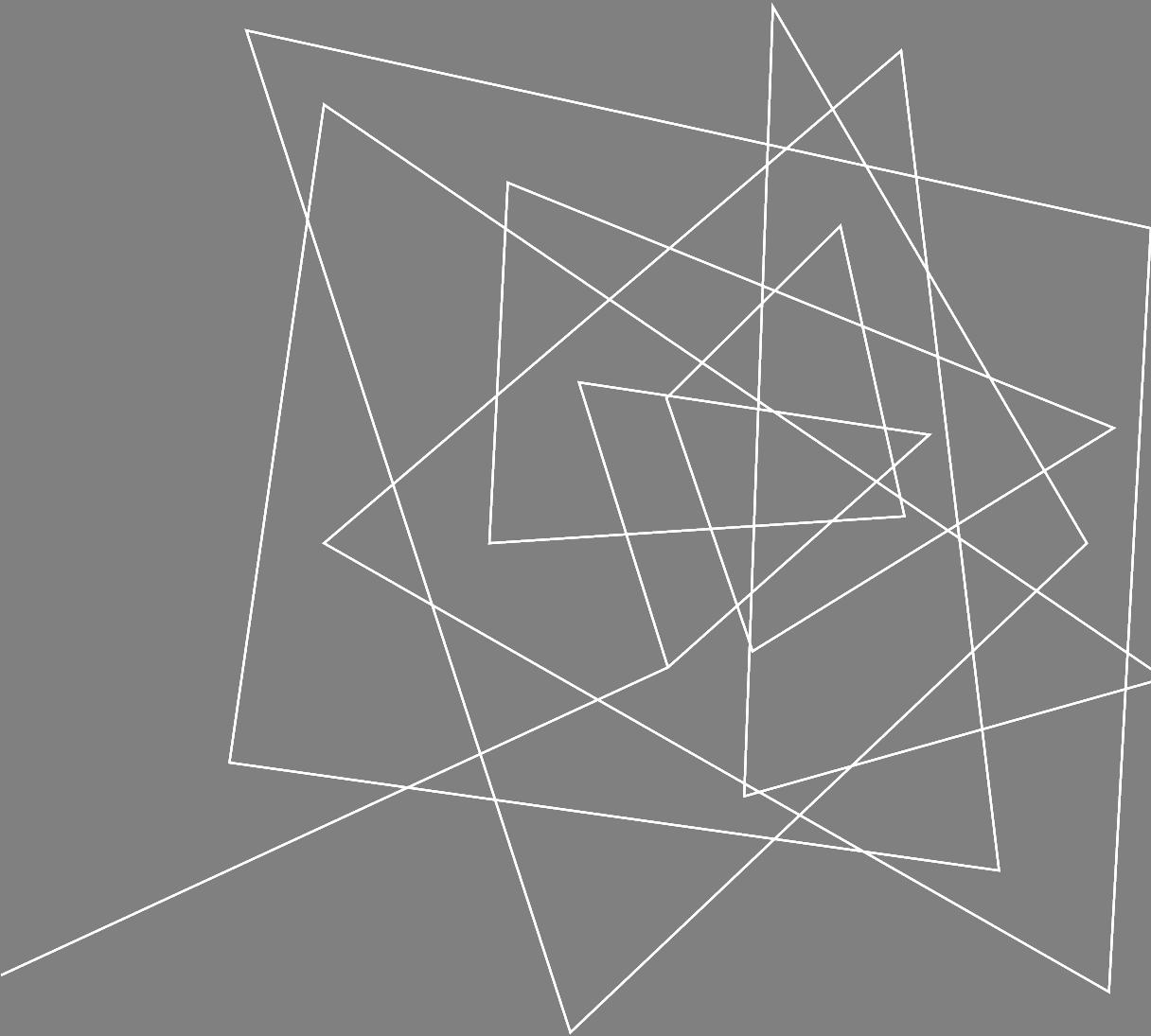
PROJECT GOAL

Build unsupervised learning models
that focus on finding meaningful
topics on users' tweets about their
opinions on ASOS services.



TOOLS

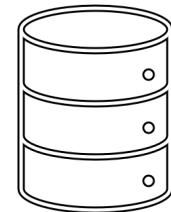
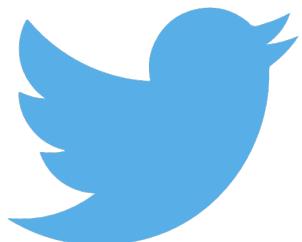


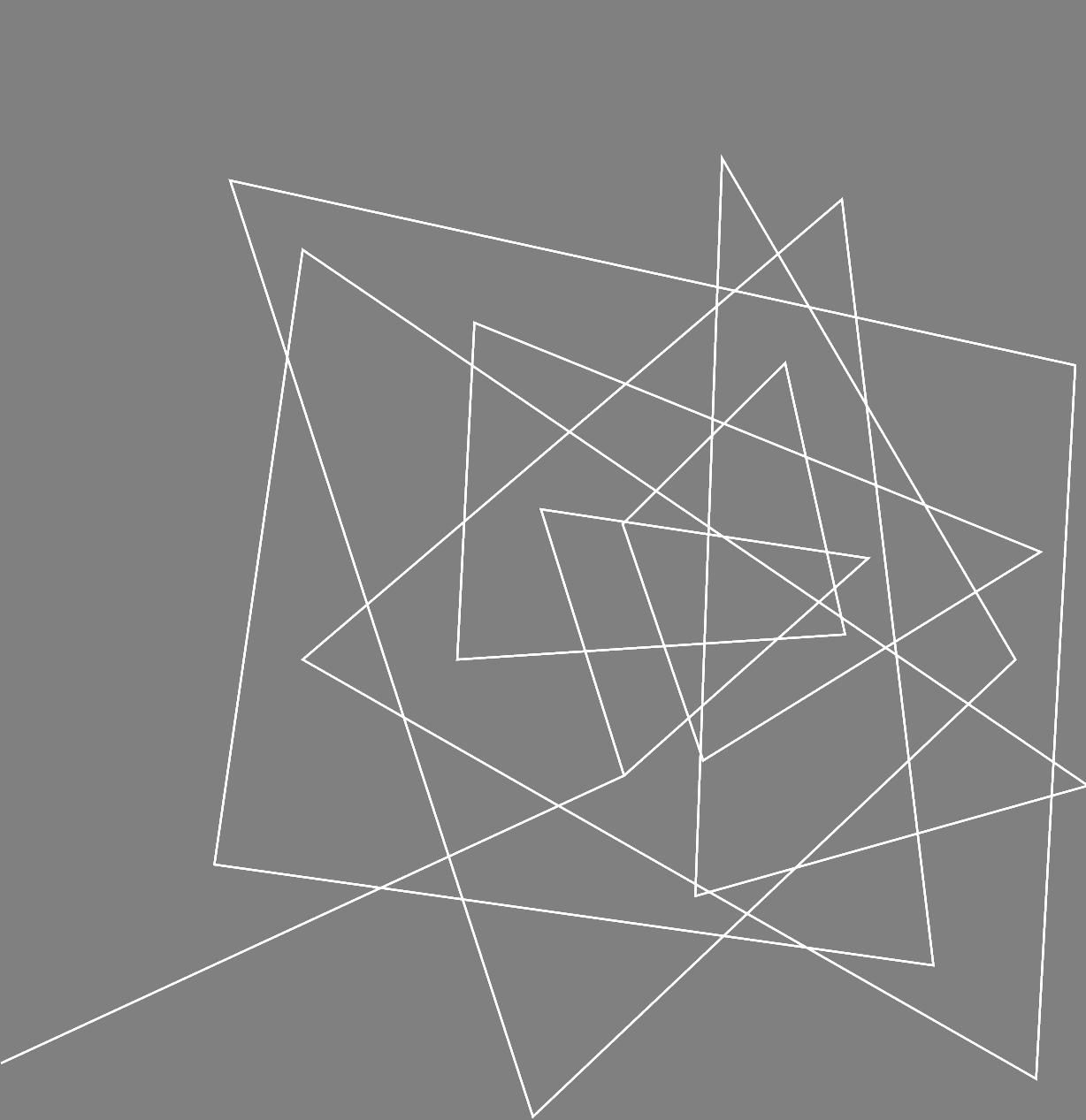


DATA ACQUISITION

DATA ACQUISITION

- Scraping tweets about ASOS using TWINT
- Tweets starting from 30/10/2019 until 03/11/2021
- 22676 rows and 2 features





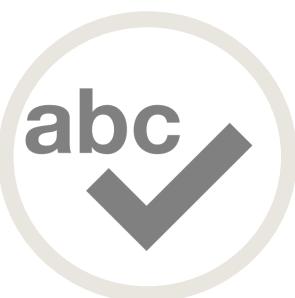
DATA PREPROCESSING

PREPROCESSING



Data Cleaning

Remove symbols,
hashtags, mentions



Spelling Correction

Correcting the misspelled
words in tweet



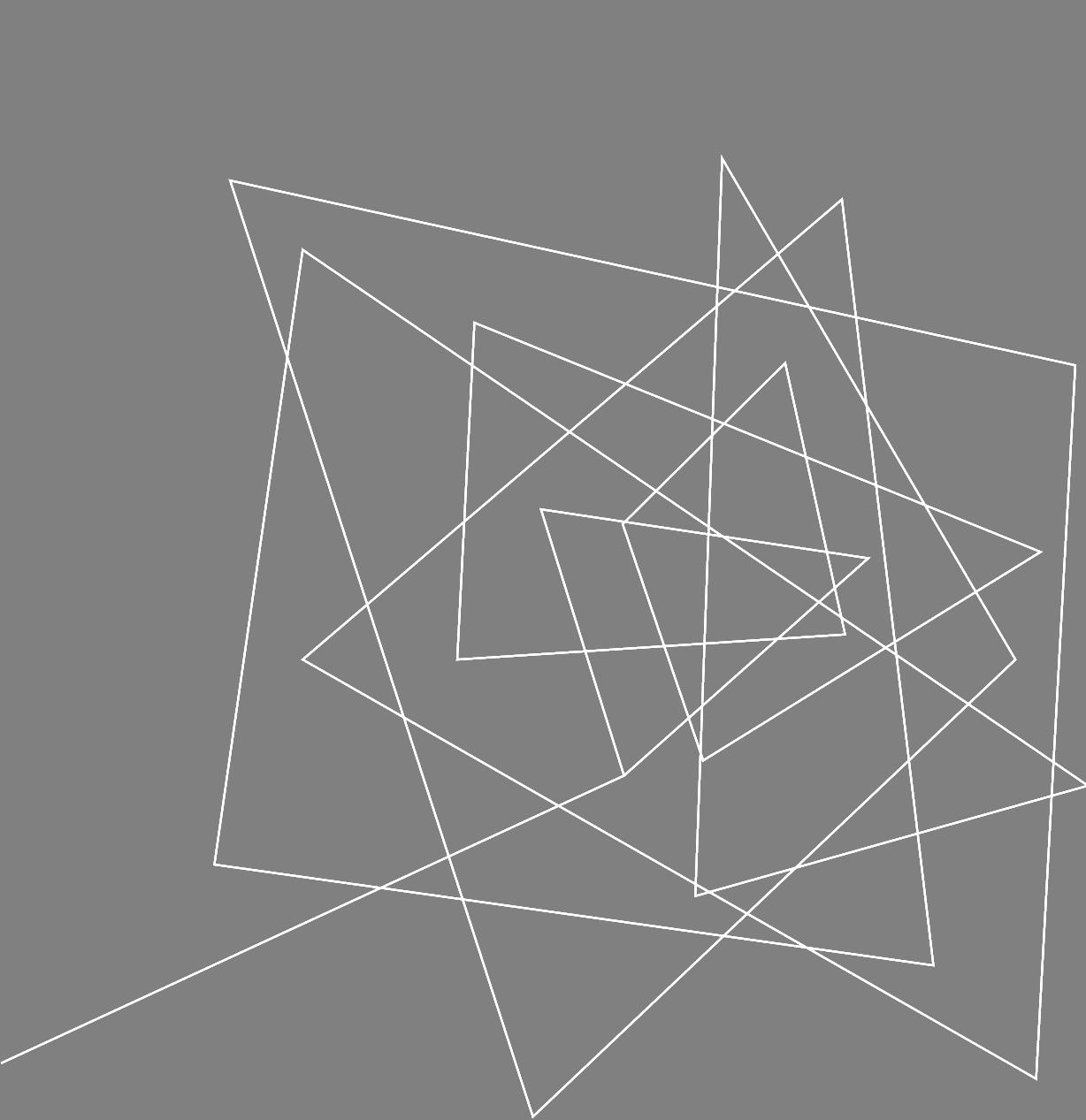
Lemmatization

Lemmatize the tweets'
words



Vectorization

Count Vectorizer, TF-IDF
Vectorizer



TOPIC MODELING

TOPIC MODELING ALGORITHMS

Trying different topic modeling algorithms with different number of topics

LSA

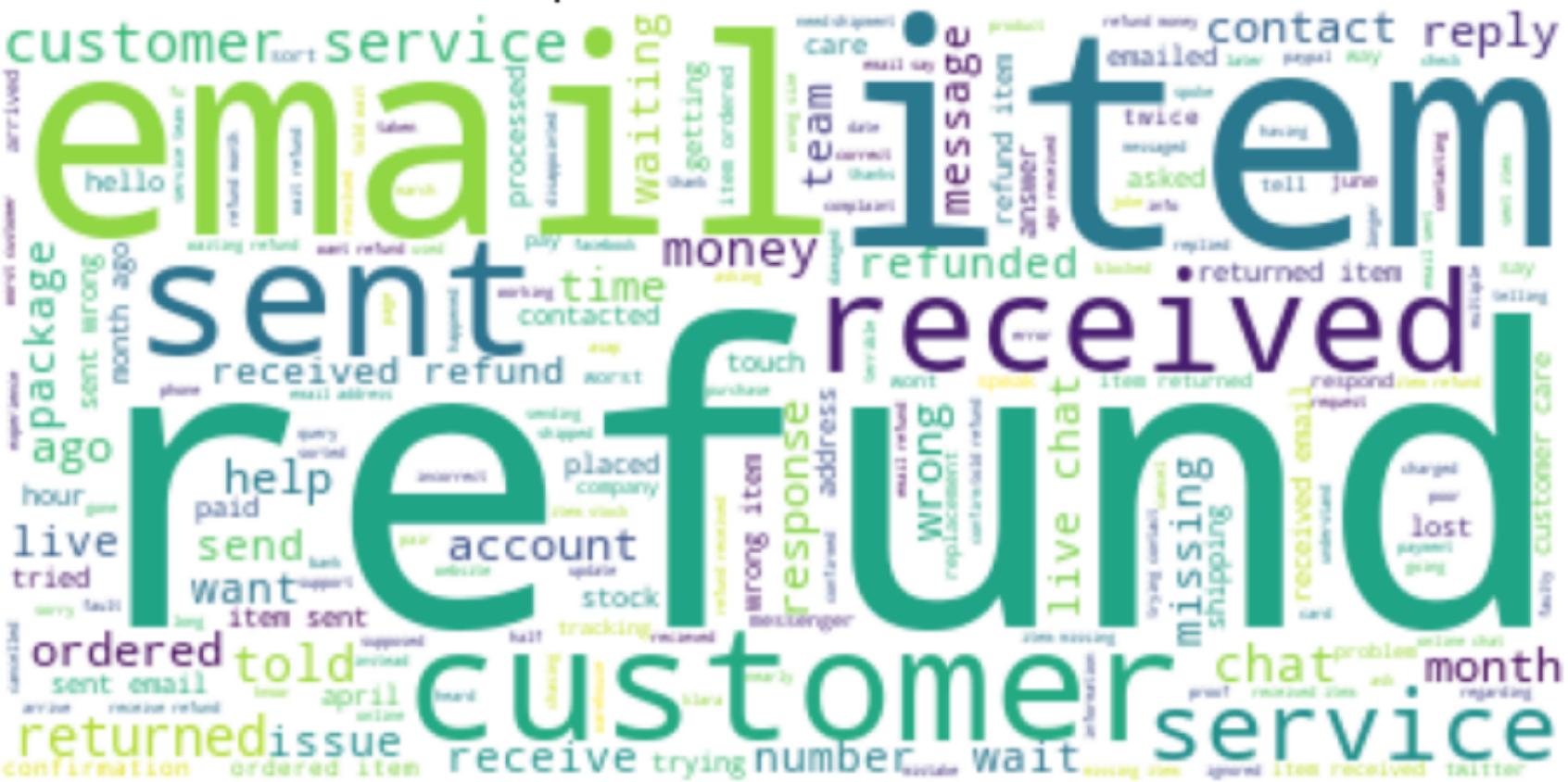
LDA

CorEx

NMF

The best model is NMF with 6 topics

Topic: Customer Service



Topic: Products

A word cloud centered around the theme of shopping and fashion, featuring large words like "clothes", "look", "shop", "time", "fit", "think", "buy", "make", "know", "like", "size", "pair", "people", "store", "online", "brand", and "fashion" surrounded by smaller descriptive words.

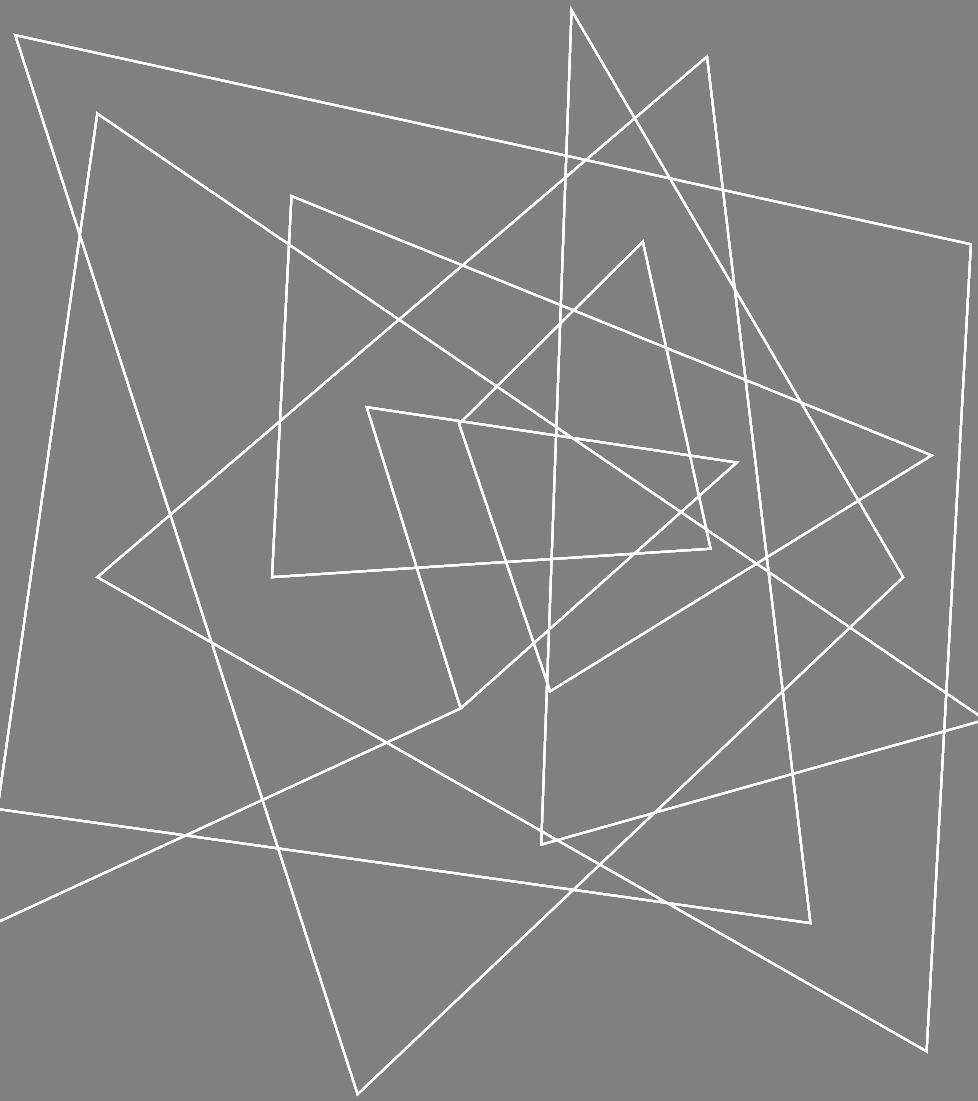
Topic: Return Service

Topic: Video Content

Topic: Rewards



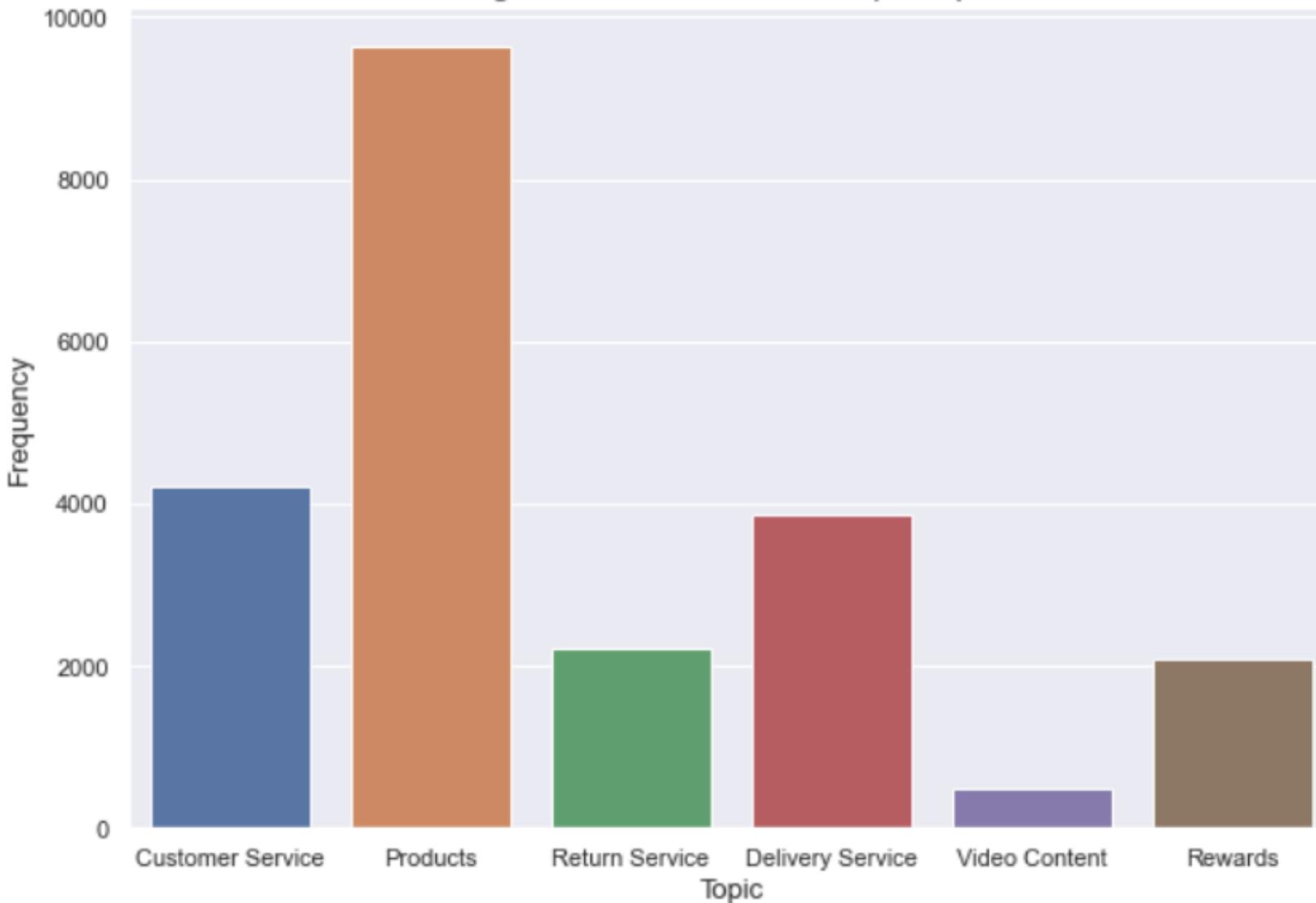
Topic: Delivery Service



EDA

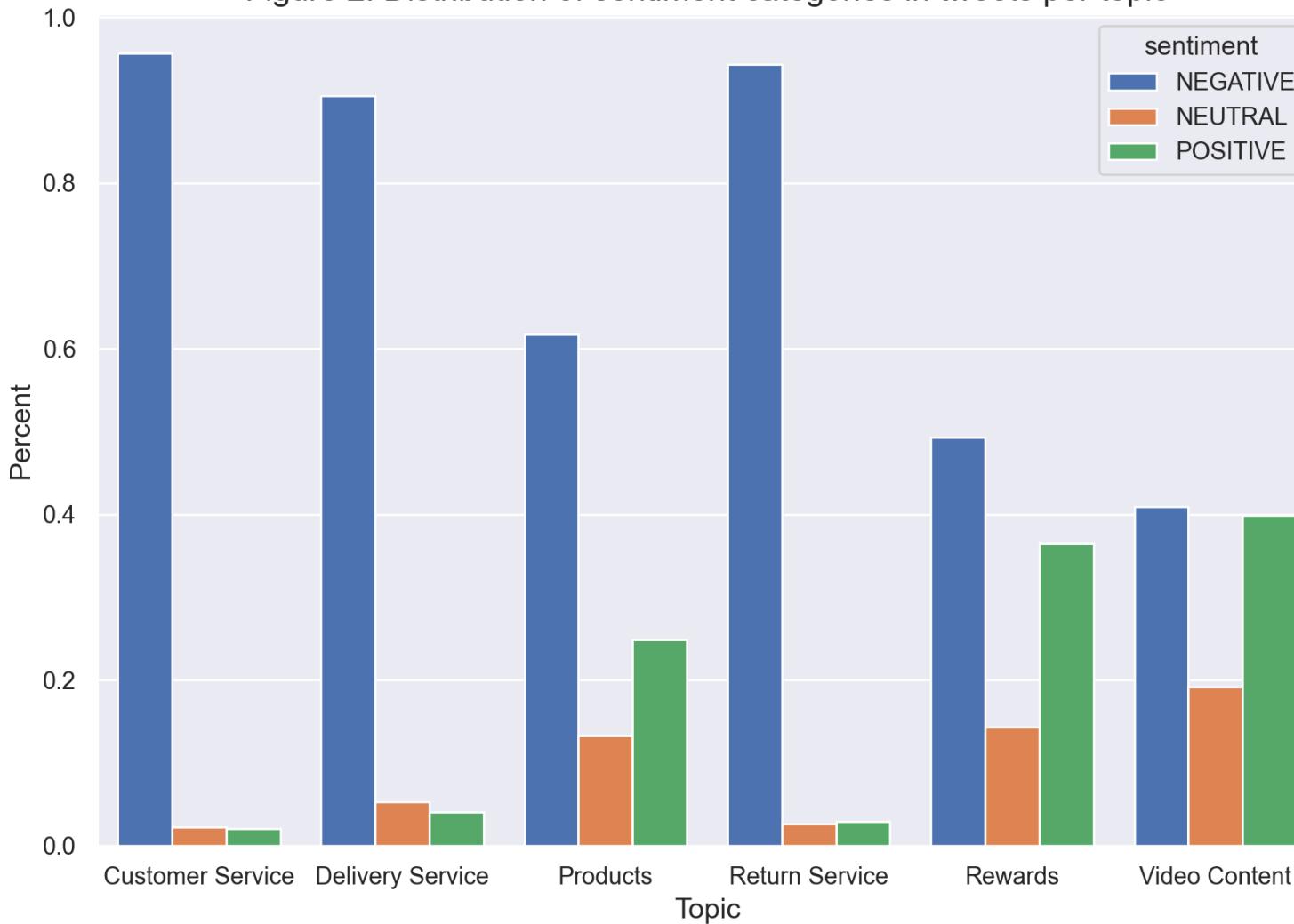
FREQUENCY OF TOPICS

Figure 1: Number of Tweets per topic



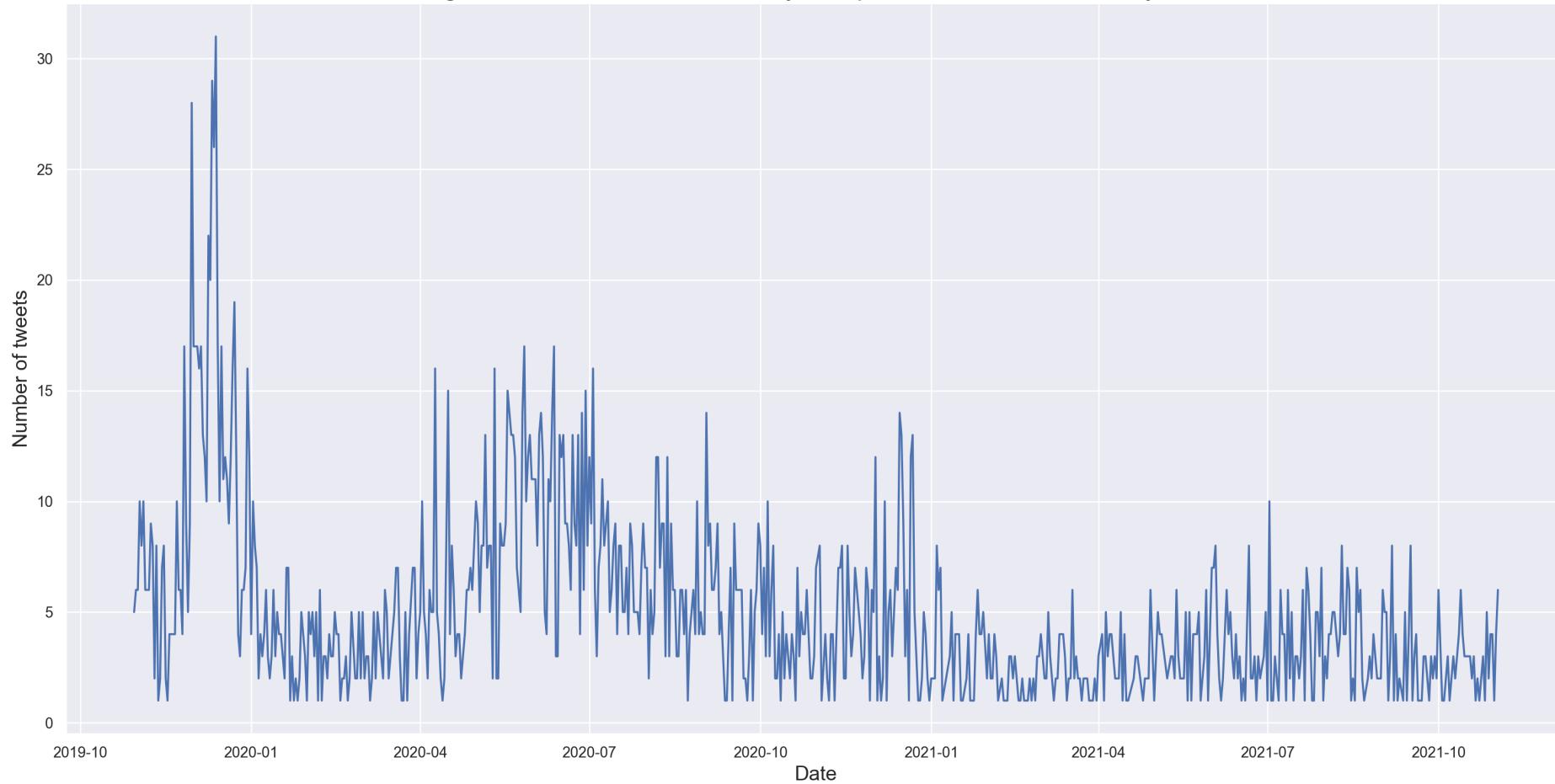
SENTIMENT PER TOPIC

Figure 2: Distribution of sentiment categories in tweets per topic



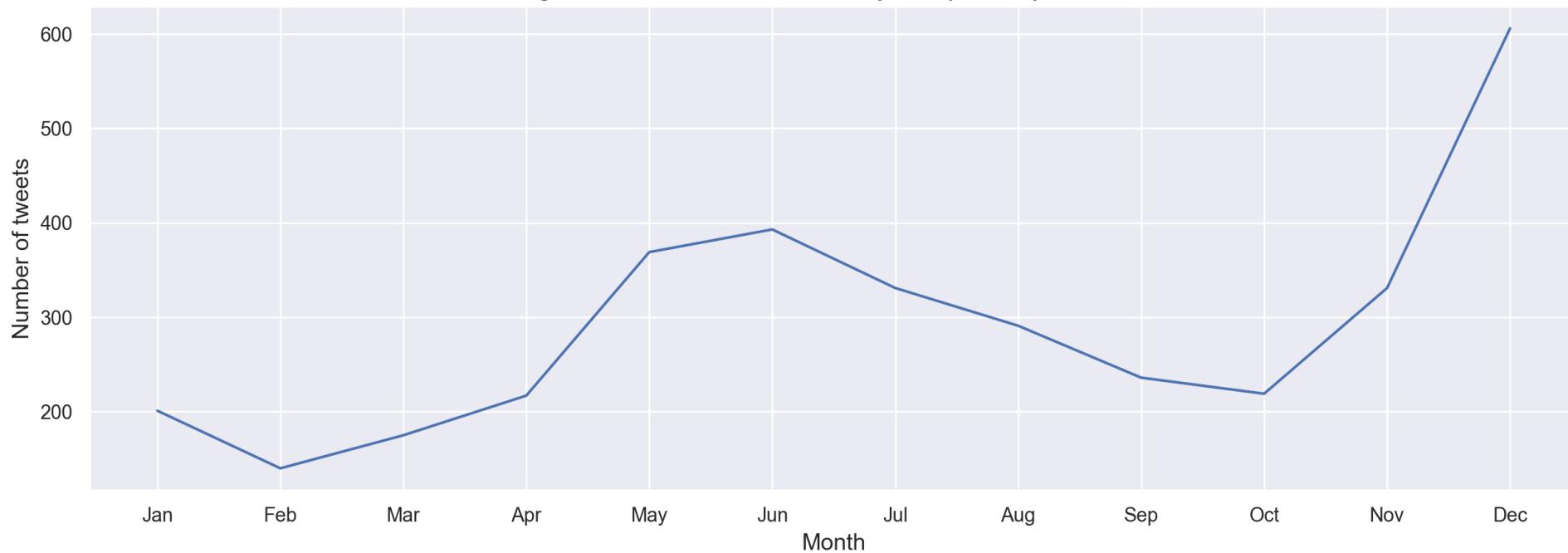
DELIVERY COMPLAINTS TWEETS OVER TIME

Figure 3: Distribution of delivery complaints over the last two years



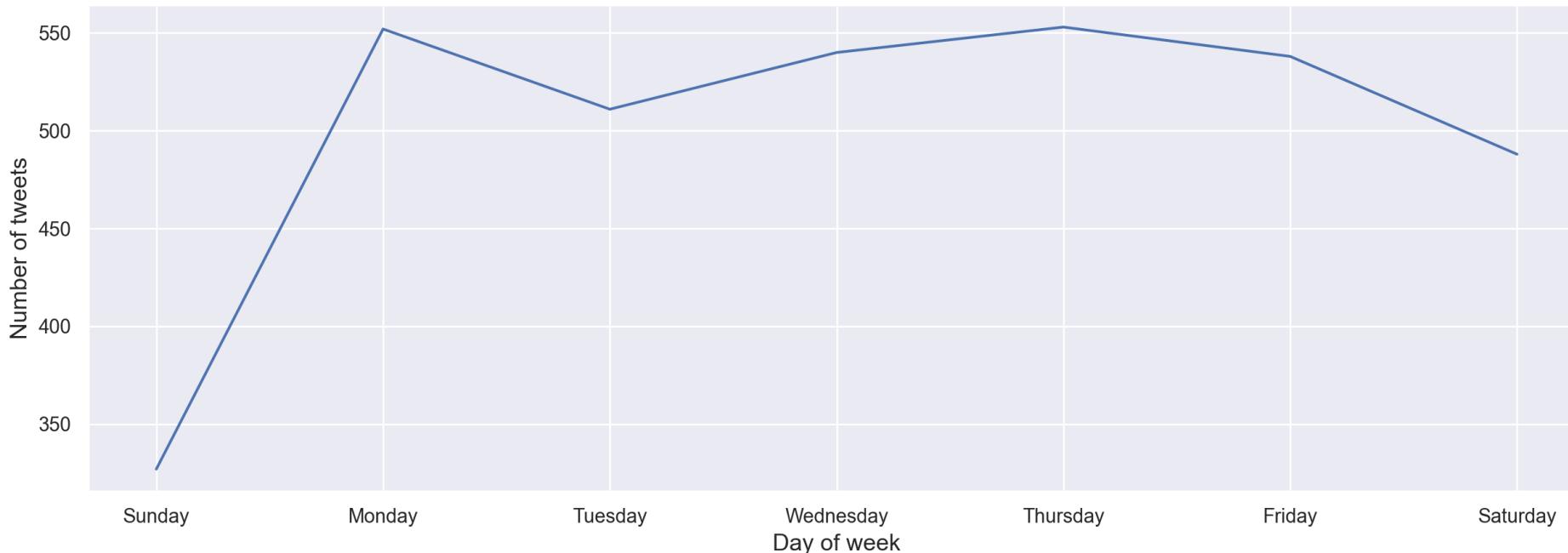
DELIVERY COMPLAINTS TWEETS PER MONTH

Figure 4: Distribution of delivery complaints per month



DELIVERY COMPLAINTS TWEETS PER DAY OF WEEK

Figure 5: Distribution of delivery complaints per week



RECOMMENDATIONS

Improve delivery, return and customer services

Focus on improving delivery service during
December and June





THANK YOU