

**asos**

# **TOPIC MODELING OF 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

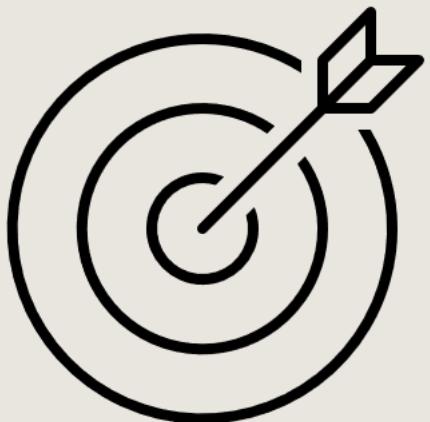
- Sentiments are feelings, opinions, emotions, likes/dislikes.
- Sentiment analysis is an NLP task that aims to obtain the writer's feelings expressed in **positive** or **negative** text.



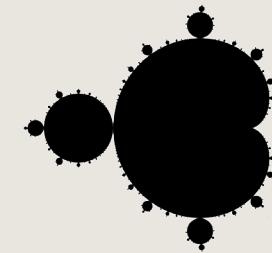
# PROJECT GOAL

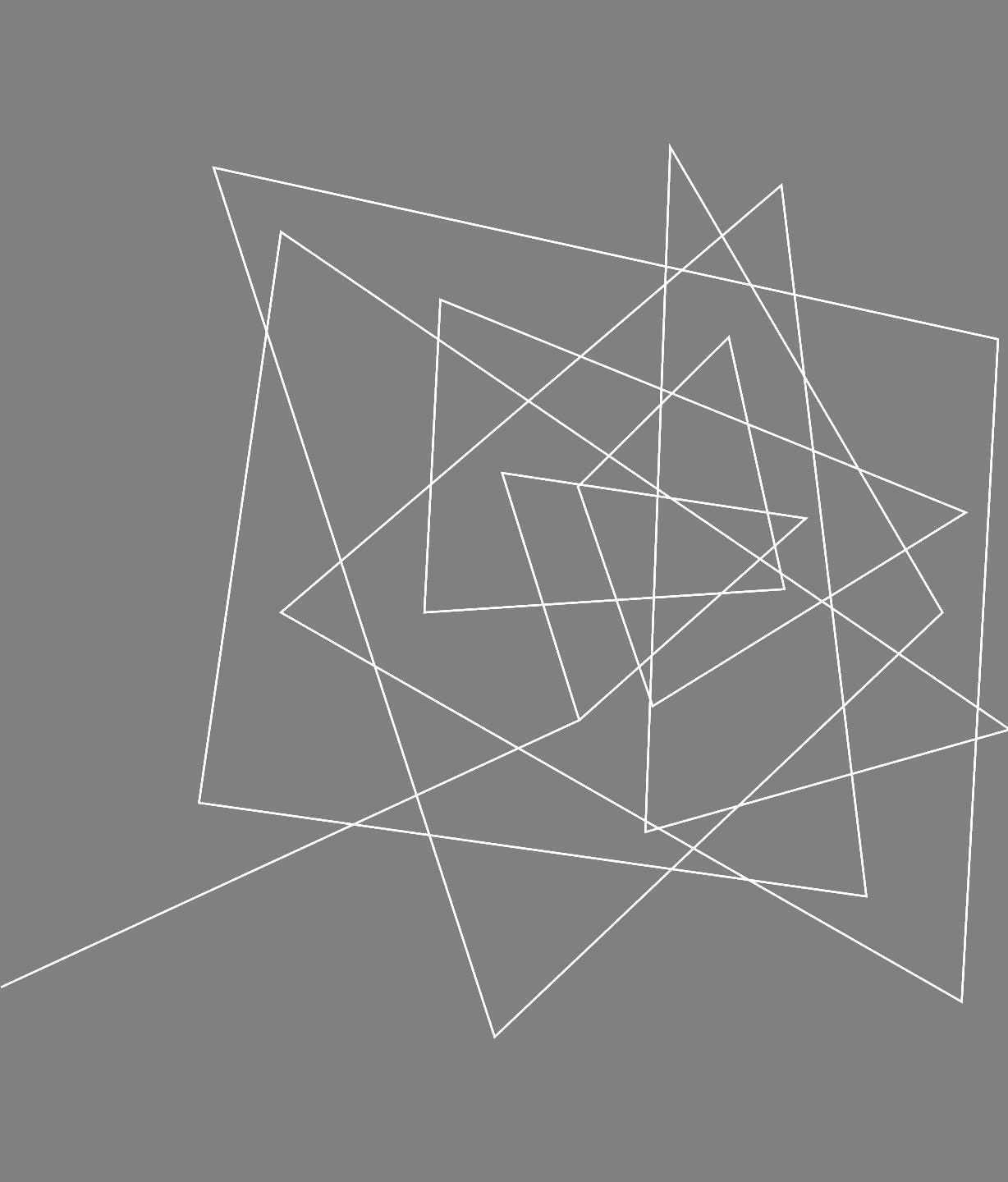
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Build unsupervised learning models  
that focus on finding meaningful  
topics on users' tweets about their  
opinions on ASOS services.



# TOOLS

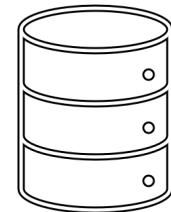
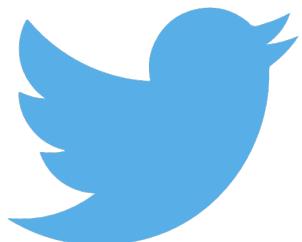


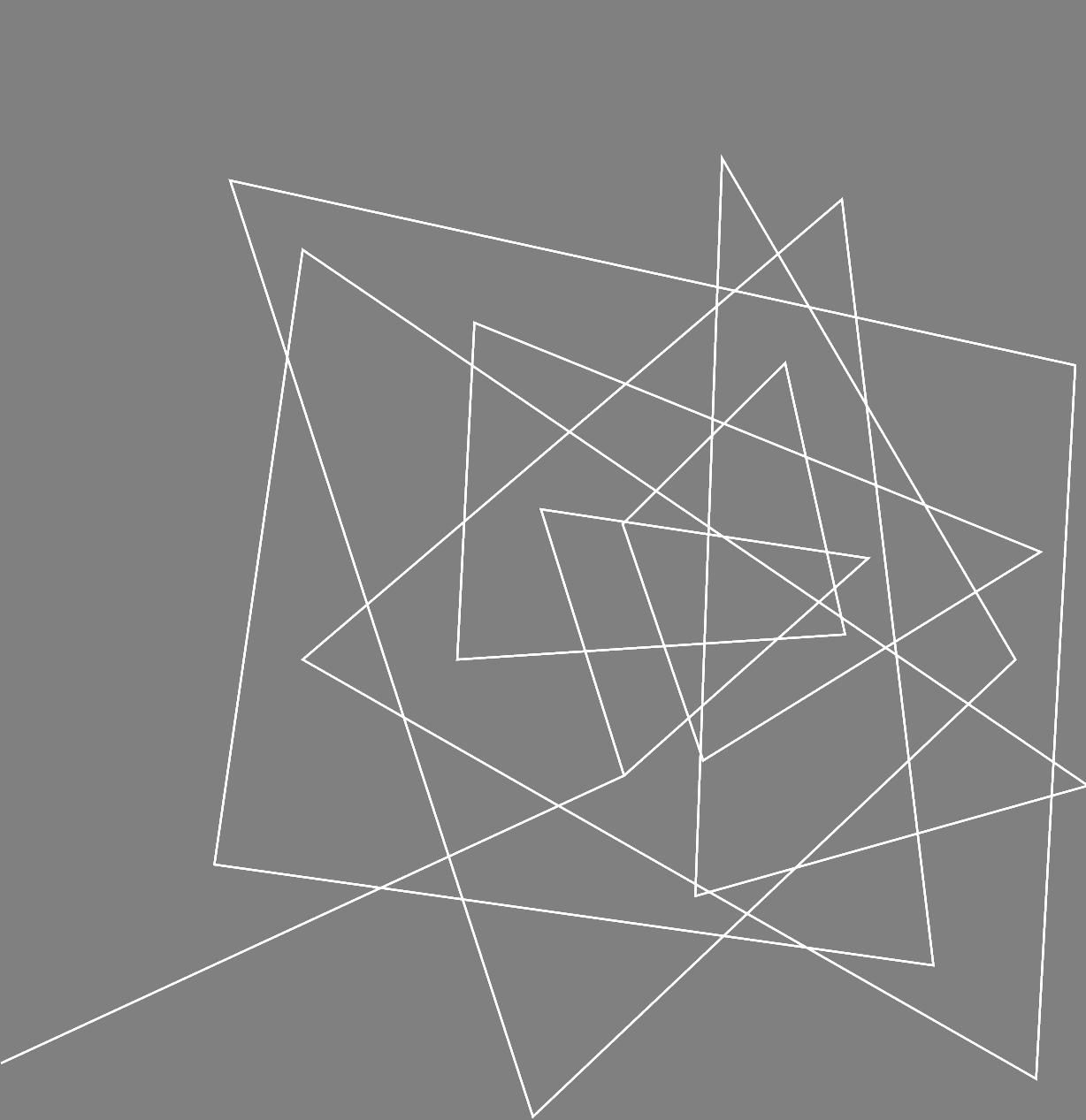


# DATA ACQUISITION

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





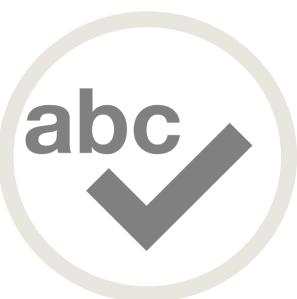
# DATA PREPROCESSING

# PREPROCESSING



## Data Cleaning

Remove symbols,  
hashtags, mentions



## Spelling Correction

Correcting the misspelled  
words in tweet



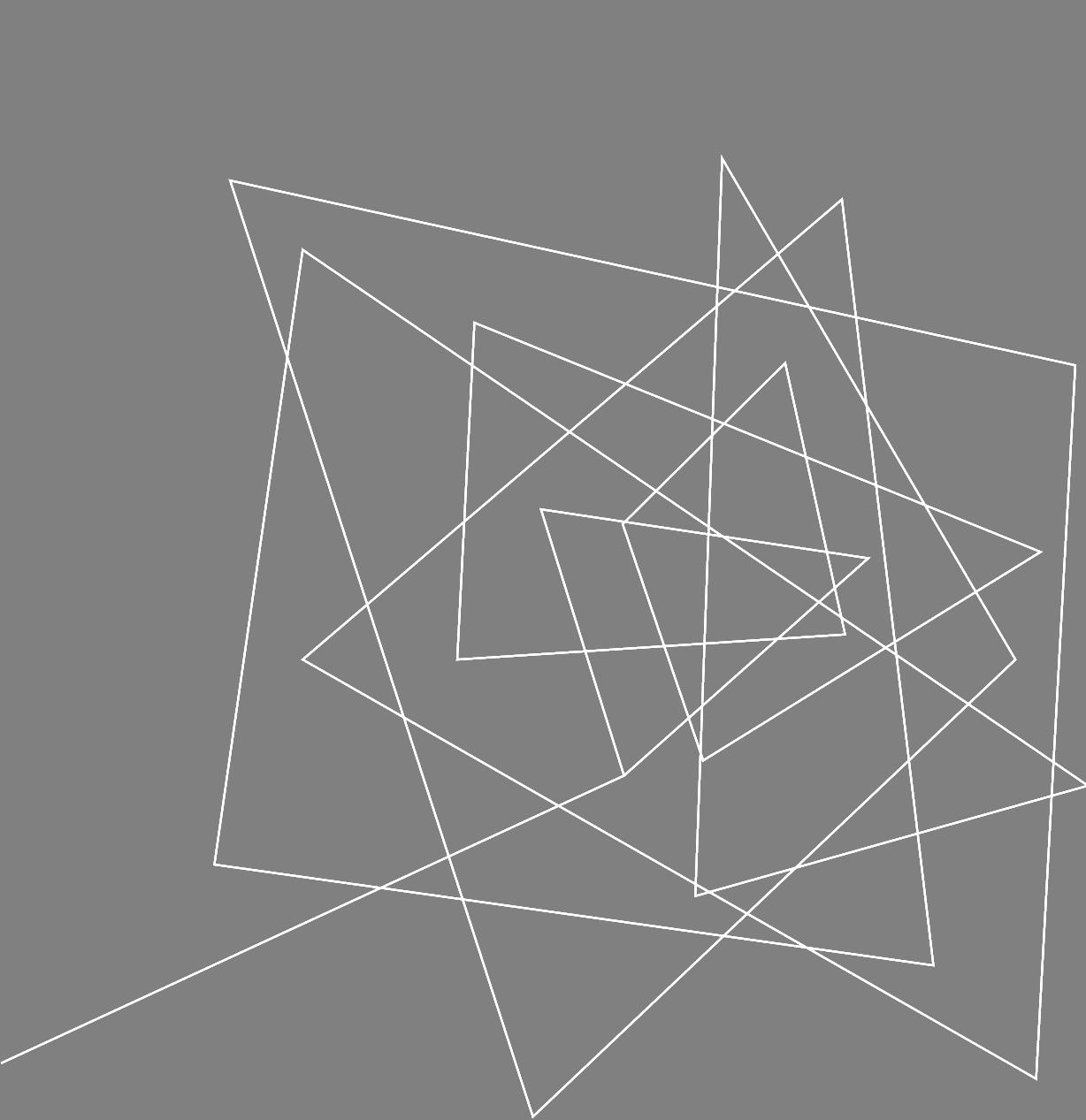
## Lemmatization

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: Video Content

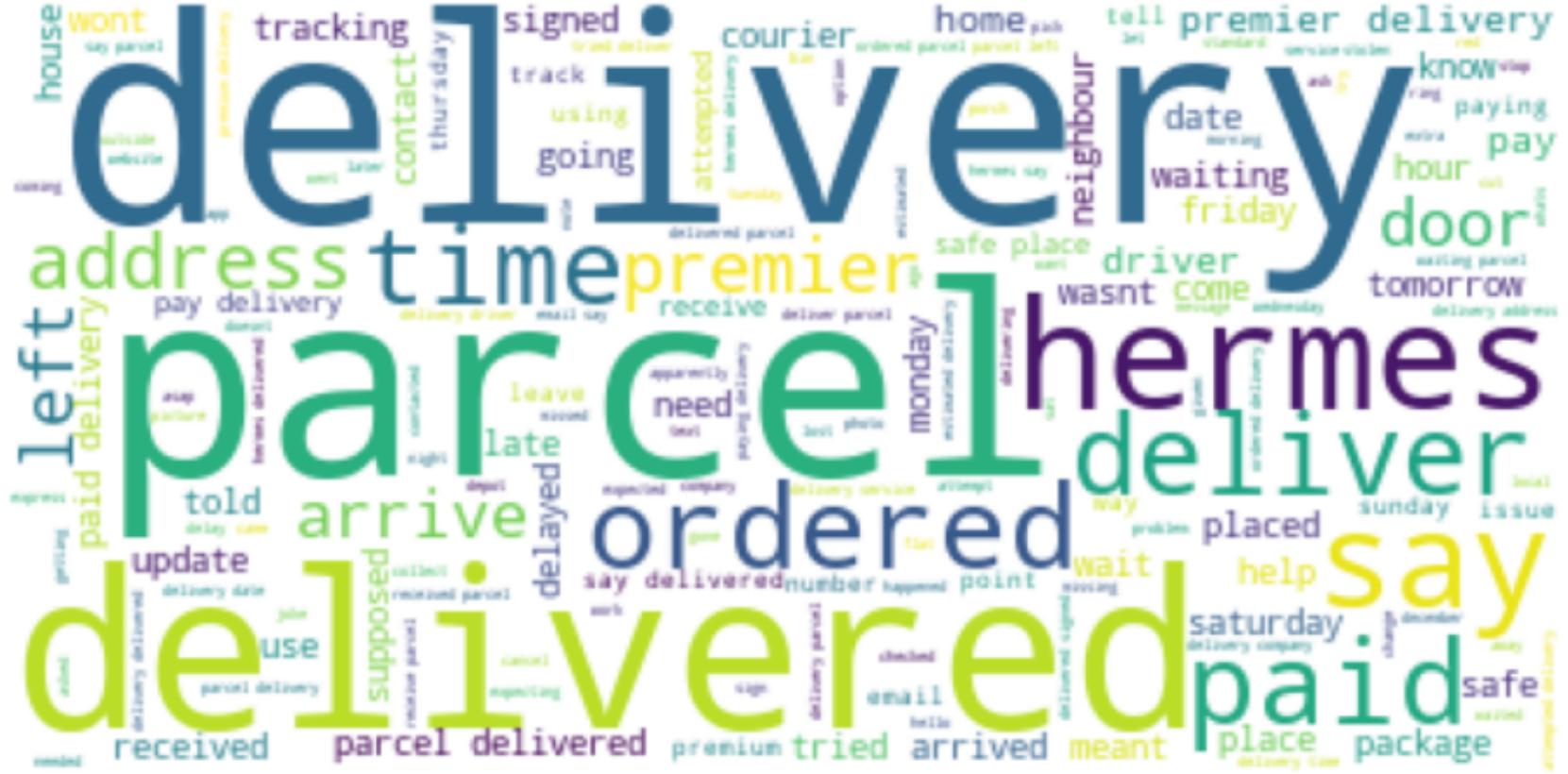
subscribe thanks video tag link small shoe lover help sub  
shoe video tag linked thanks hey shoe help pretty help  
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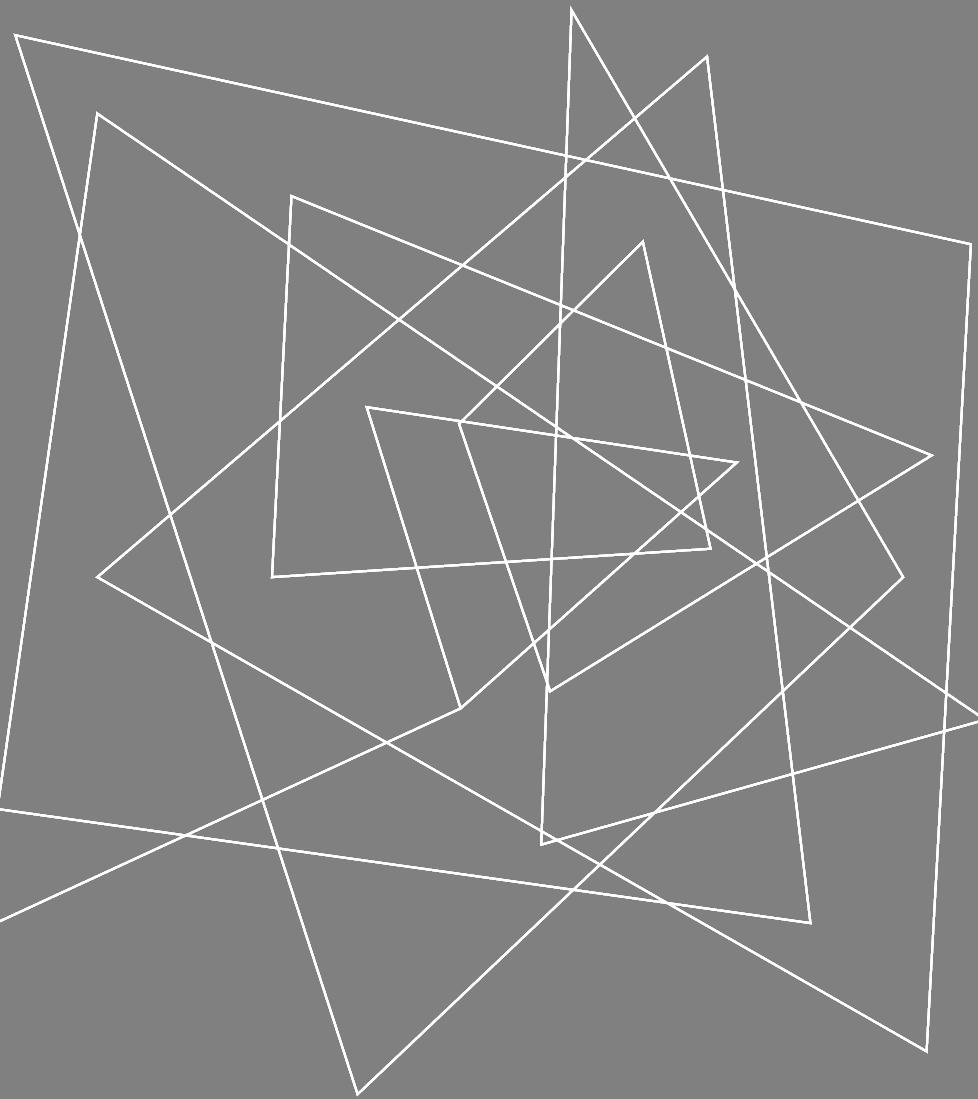
**youtube** **subscribe** **thanks** **video** **tag** **link** **small** **shoe** **lover** **help** **sub**  
**shoe** **video** **tag** **linked** **thanks** **hey** **shoe** **help** **pretty** **help**  
**tag** **linked** **thanks** **hey** **shoe** **hope** **subscribe** **share** **make** **work**  
**hope** **subscribe** **share** **make** **work** **latest** **shoe**  
**subscribe** **thanks** **latest** **hey** **make** **subscribe** **youtube** **hope**  
**work** **help** **work** **youtube** **channel** **channel** **linked** **subscribe** **youtube**  
**work** **help** **youtube** **channel** **channel** **linked** **latest** **check**  
**tag** **notice** **make** **youtube** **featuring** **month** **thanks** **featuring** **channel** **pretty** **check** **latest** **thread** **check**  
**video** **link** **small** **share** **video** **thanks** **link** **sub** **month**  
**video** **link** **small** **share** **video** **thanks** **link** **sub** **month**

## Topic: Rewards



## Topic: Delivery Service

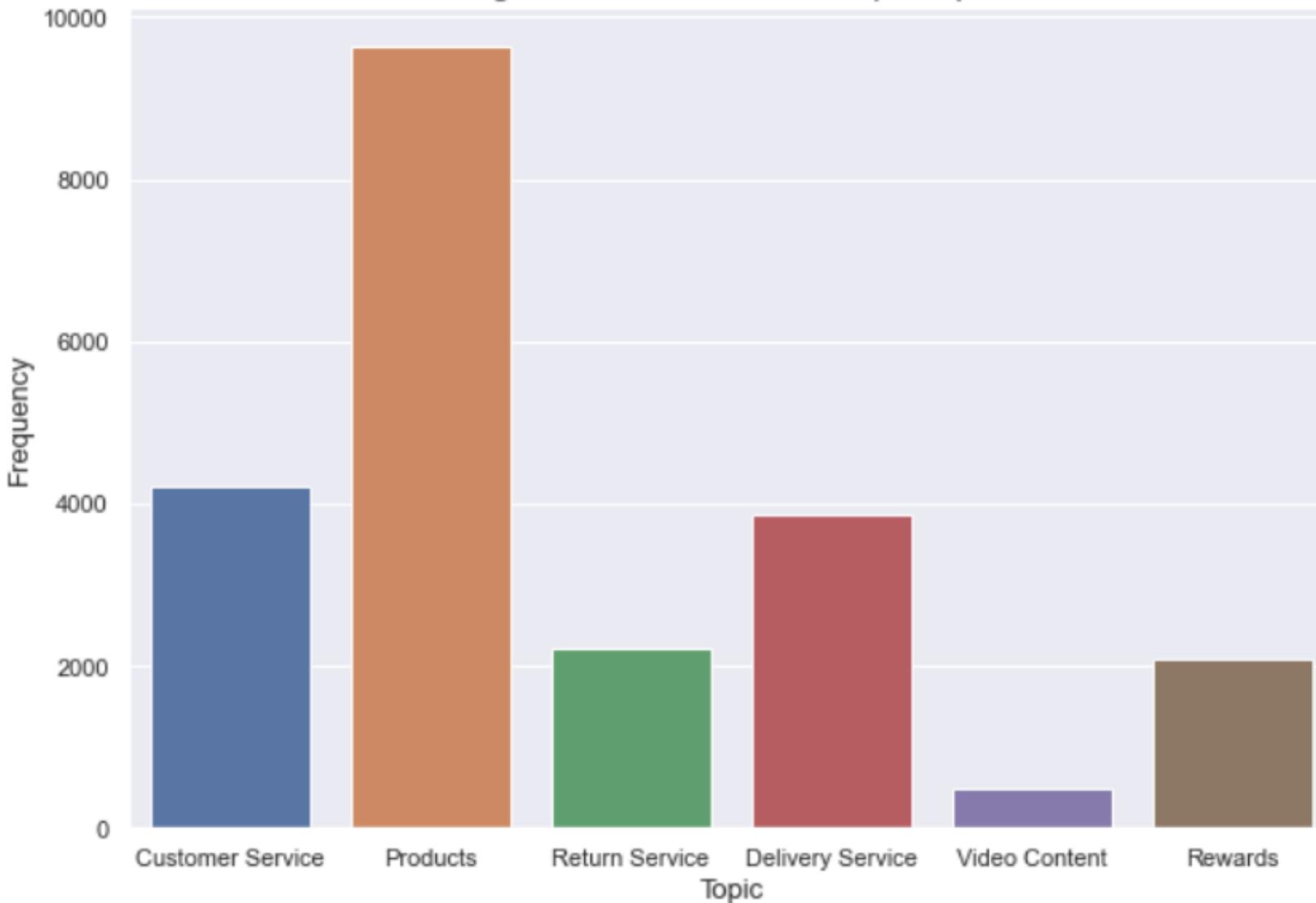




EDA

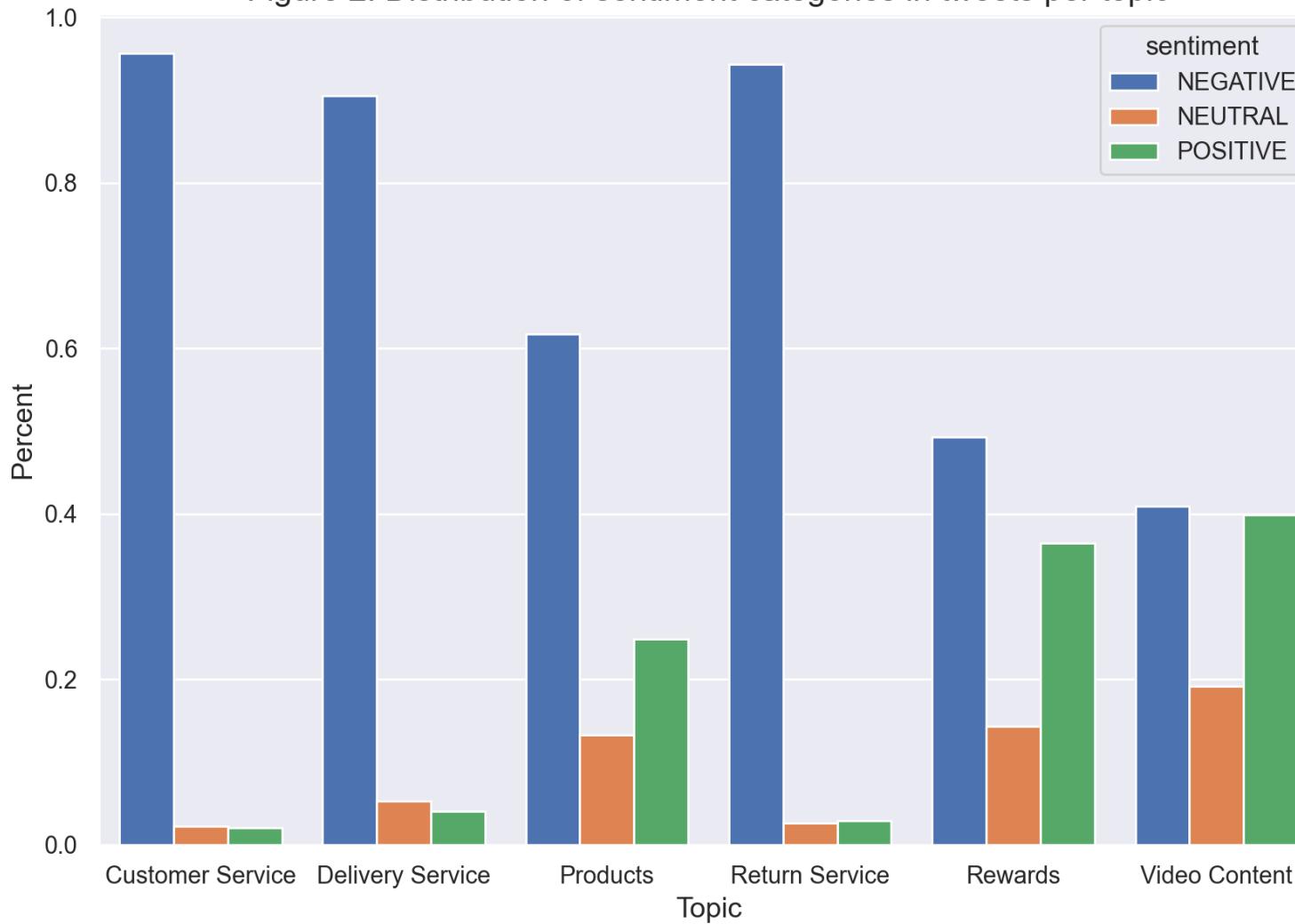
# FREQUENCY OF TOPICS

Figure 1: Number of Tweets per topic



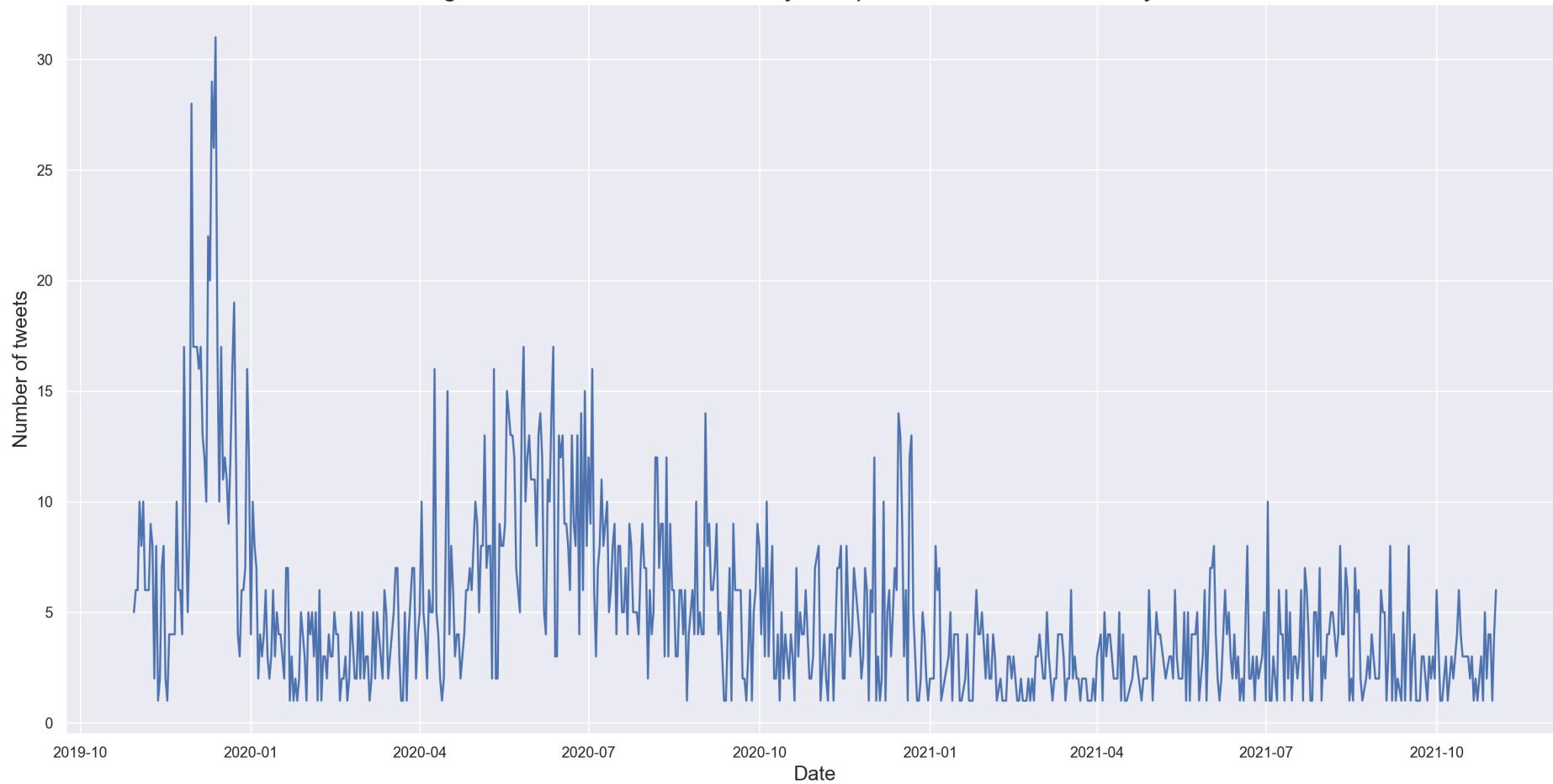
# SENTIMENT PER TOPIC

Figure 2: Distribution of sentiment categories in tweets per topic



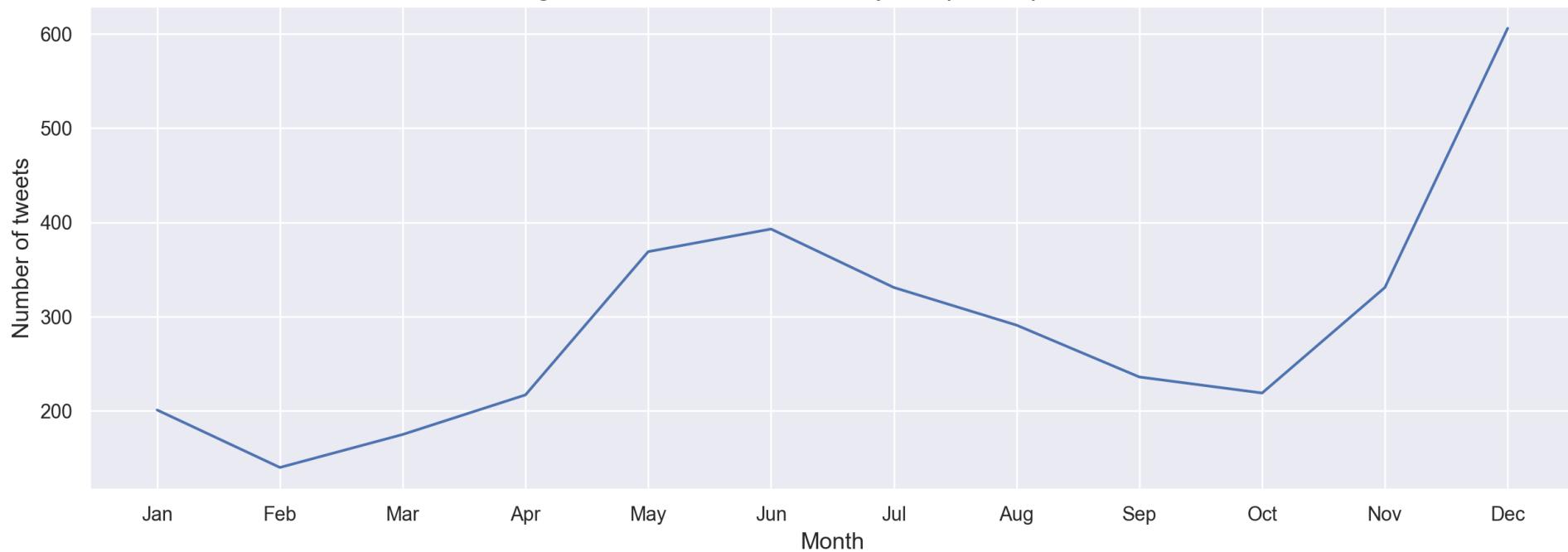
# DELIVERY COMPLAINTS TWEETS OVER TIME

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



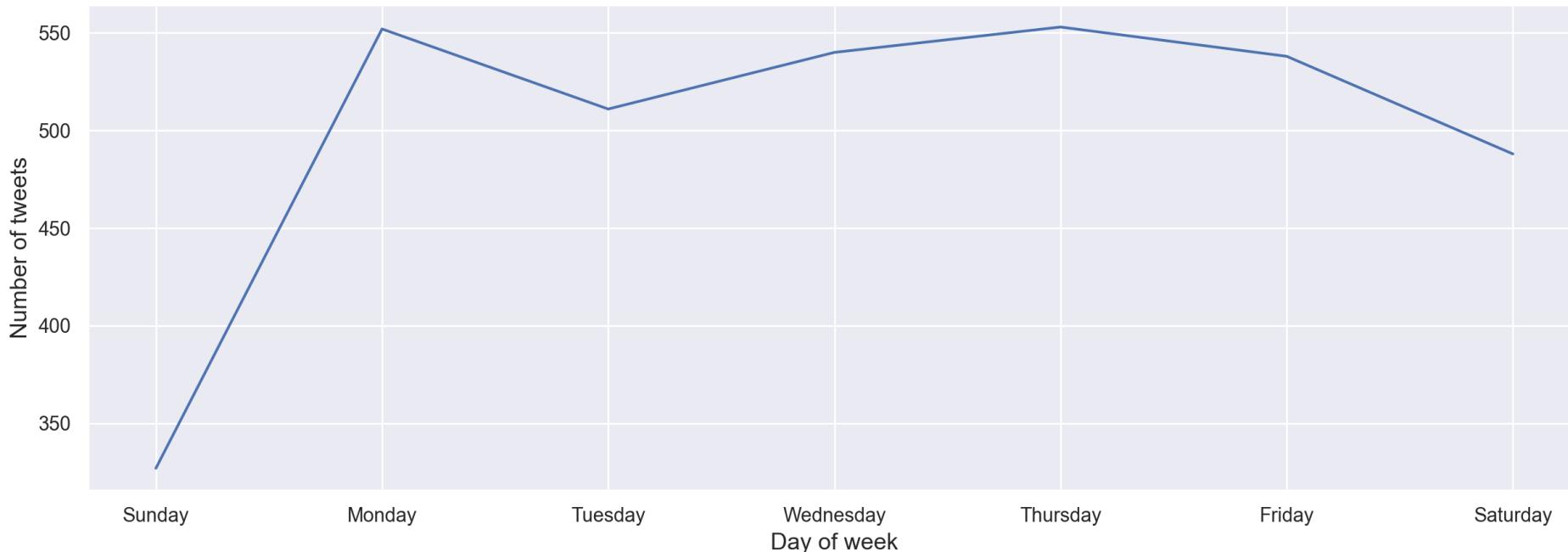
## DELIVERY COMPLAINTS TWEETS PER MONTH

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