bjp-vs-congress

June 9, 2024

\#

BJP VS CONGRESS

```python
[87]: import pandas as pd
      import numpy as np
      import matplotlib.pyplot as plt
      import seaborn as sns
      from wordcloud import WordCloud
      import re
      import string
      import nltk
      import warnings
      %matplotlib inline

      warnings.filterwarnings("ignore")

      #Setting Fontsize ,Font weight,label weight for labels and title , figure size.
      plt.style.use("seaborn")
      plt.rcParams['figure.figsize'] = (20,8)
      plt.rcParams['font.weight'] = 'bold'
      plt.rcParams['axes.labelweight'] = 'bold'
      plt.rcParams['axes.titlesize'] = 25
      plt.rcParams['axes.titleweight'] = 'bold'
      plt.rcParams['xtick.labelsize'] = 15
      plt.rcParams['ytick.labelsize'] = 15
      plt.rcParams['axes.labelsize'] = 20
      plt.rcParams['legend.fontsize'] = 15
      plt.rcParams['legend.title_fontsize'] = 15
```

```python
[88]: # Loading BJP tweets dataset.
      BJP = pd.read_csv("/kaggle/input/bjp-vs-congress-tweets/bjp_tweets.csv")
      # Loading Congress tweets dataset.
      CONG = pd.read_csv("/kaggle/input/bjp-vs-congress-tweets/congress_tweets.csv")
```

```python
[89]: BJP.head() , CONG.head()
```

```
[89]:  (   Unnamed: 0                                                tweet  target
       0           0  ndtv anchor let go over to aap live press conf…        0
       1           1  sambit patra attacks rahul gandhi over his cow…        0
       2           2  crediting the bjp with taking development to s…        1
       3           3  ktrbrs do do false allegations on iasassociati…       0
       4           4  gujarat assembly yet to get rs cr as gst compe…       1,
           Unnamed: 0                                                tweet  target
       0           0  spending shocker cbo latest debt projection sh…        0
       1           1  will you vote for congress in 2024 congress co…        1
       2           2        triviapotus we need termlimits for congress         1
       3           3  eam s jaishankar hit out at congress for quad …        0
       4           4  is this why congress supported amp celebrated …        1)
```

```python
[90]:  # Removing unnecessary data fields.
       BJP = pd.read_csv("/kaggle/input/bjp-vs-congress-tweets/bjp_tweets.csv",
        usecols = ['tweet','target'])


       CONG = pd.read_csv("/kaggle/input/bjp-vs-congress-tweets/congress_tweets.csv",
        usecols = ['tweet','target'])
```

```python
[91]:  BJP.shape , CONG.shape
```

```
[91]:  ((49477, 2), (30252, 2))
```

```python
[92]:  BJP.head() , CONG.head()
```

```
[92]:  (                                               tweet  target
       0  ndtv anchor let go over to aap live press conf…        0
       1  sambit patra attacks rahul gandhi over his cow…        0
       2  crediting the bjp with taking development to s…        1
       3  ktrbrs do do false allegations on iasassociati…       0
       4  gujarat assembly yet to get rs cr as gst compe…       1,
                                                      tweet  target
       0  spending shocker cbo latest debt projection sh…        0
       1  will you vote for congress in 2024 congress co…        1
       2        triviapotus we need termlimits for congress         1
       3  eam s jaishankar hit out at congress for quad …        0
       4  is this why congress supported amp celebrated …        1)
```

```python
[93]:  print(BJP.tail(),"\n")
       print(CONG.tail())
```

```
                                                   tweet  target
       49472  1ddrive modispeakstonews18 loksabhaelections20…        1
       49473  i am seriously worried about future of indian …        1
       49474  if narendramodi is so bad then why does incind…       0
       49475  on this 23rd march pakistan day i urge all ind…       0
```

```
49476    timesofindia arvindkejriwal aap sirji pls deci…        0

                                               tweet  target
30247    quizzicalguy in this loksabhaelections2019 is …        1
30248    anumavidisha rahulgandhi arvindkejriwal when s…        0
30249    sherryontopp early morning political move afte…        0
30250    mayankgandhi04 early morning political move af…        0
30251    drkumarvishwas early morning political move af…        0
```

[94]:
```python
# Inserting a new field as Party Name.
BJP.insert(0,"party_name","BJP")
CONG.insert(0,"party_name","Congress")
```

[95]:
```python
print(BJP.tail(),"\n")
print(CONG.tail())
```

```
       party_name                                               tweet  target
49472         BJP  1ddrive modispeakstonews18 loksabhaelections20…        1
49473         BJP  i am seriously worried about future of indian …        1
49474         BJP  if narendramodi is so bad then why does incind…        0
49475         BJP  on this 23rd march pakistan day i urge all ind…        0
49476         BJP  timesofindia arvindkejriwal aap sirji pls deci…        0

       party_name                                               tweet  target
30247    Congress  quizzicalguy in this loksabhaelections2019 is …        1
30248    Congress  anumavidisha rahulgandhi arvindkejriwal when s…        0
30249    Congress  sherryontopp early morning political move afte…        0
30250    Congress  mayankgandhi04 early morning political move af…        0
30251    Congress  drkumarvishwas early morning political move af…        0
```

[96]:
```python
# Let's view what's the length of the Tweets in our BJP and Congress data.
length_BJP = BJP['tweet'].str.len()
length_CONG = CONG['tweet'].str.len()
plt.figure(figsize=(16,6))
plt.hist(length_BJP , bins = 50 , label ="BJP_Tweets",color = "skyblue")
plt.hist(length_CONG, bins = 50 , label = "Congress_Tweets")
plt.xlabel("Tweet Length")
plt.ylabel("Tweet Count")
plt.title("Length of the tweets for both parties.")
plt.legend()
```

[96]: <matplotlib.legend.Legend at 0x7fd5bb21a350>
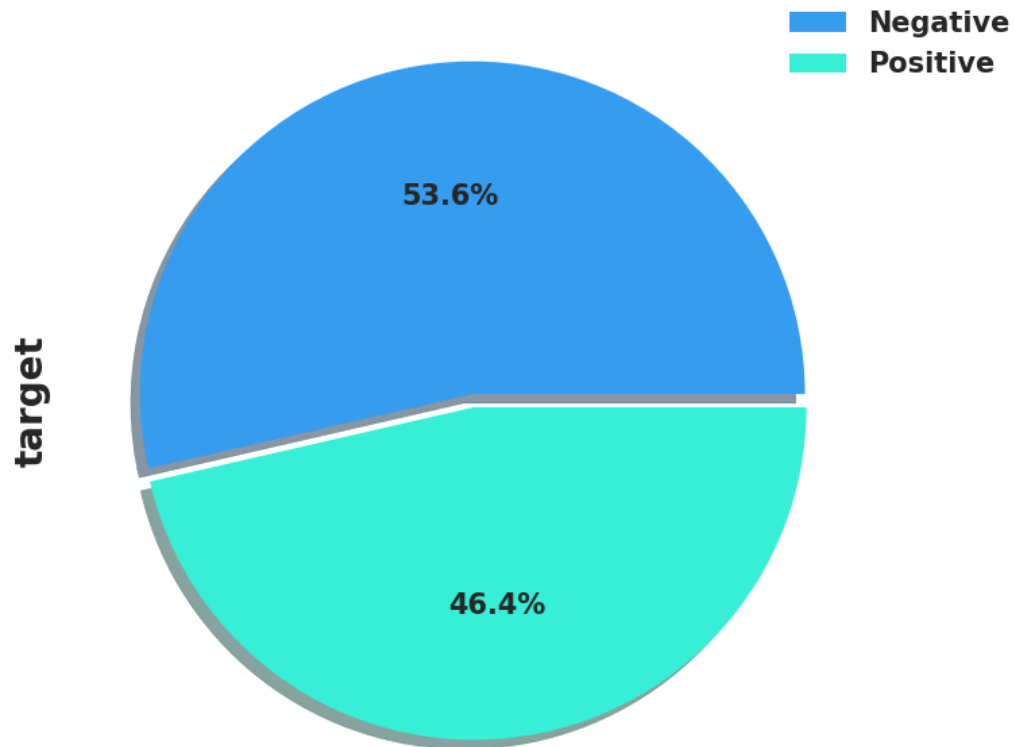
Length of the tweets for both parties.
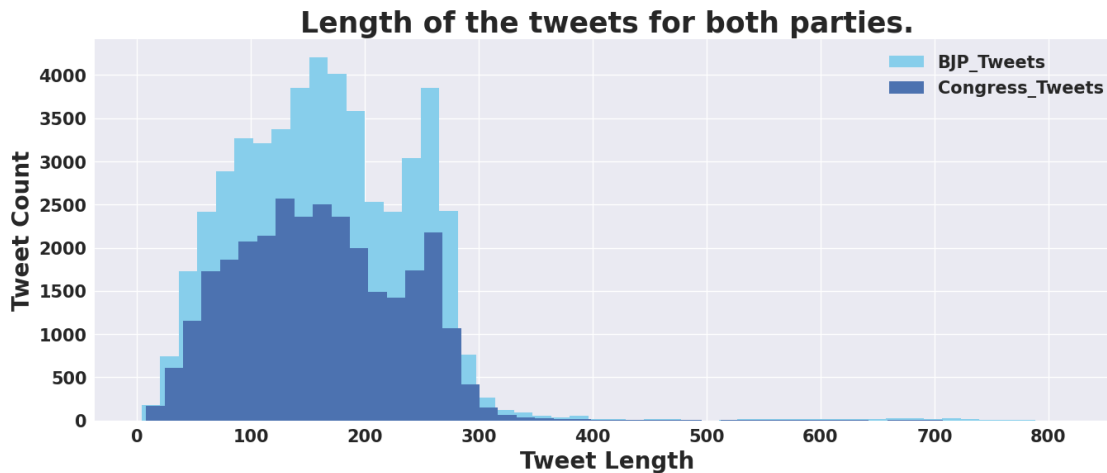
```
[97]: BJP['target'].value_counts().plot.pie(explode=(0.02,0.
      ↪02),colors=['#369cef','#36efd6'],autopct='%1.1f%%',fontsize =␣
      ↪15,shadow=True,labels=None)
      plt.title("Percentage Distribution of Tweets for BJP")
      labels=BJP['target'].value_counts().index.tolist()
      for i in range(len(labels)):
          # replace 0 with Positive.
          if labels[i] == 0:
              labels[i] = 'Positive'

          # replace 1 with Negative
          if labels[i] == 1:
              labels[i] = 'Negative'

      plt.legend(bbox_to_anchor=(0.85, 1), loc='upper left', labels=labels)
      plt.show()
```

Percentage Distribution of Tweets for BJP


```
[98]: CONG['target'].value_counts().plot.pie(explode=(0.02,0.
      ↪02),colors=['#369cef','#36efd6'],autopct='%1.1f%%',fontsize =
      ↪15,shadow=True,labels=None)
      plt.title("Percentage Distribution of Tweets for Congress")
      labels=CONG['target'].value_counts().index.tolist()
      for i in range(len(labels)):
          # replace 0 with Positive.
          if labels[i] == 0:
              labels[i] = 'Positive'

          # replace 1 with Negative
          if labels[i] == 1:
              labels[i] = 'Negative'

      plt.legend(bbox_to_anchor=(0.85, 1), loc='upper left', labels=labels)
      plt.show()
```

Percentage Distribution of Tweets for Congress

target

52.9%

47.1%

Negative
Positive
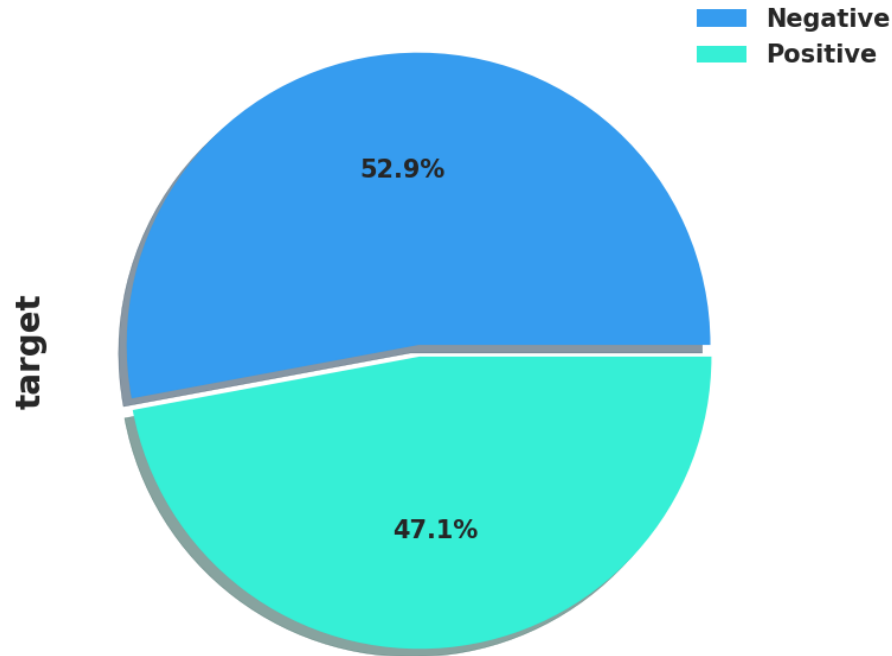
[99]:
```python
# Remove Short Words.
BJP['clean_tweet'] = BJP['tweet'].apply(lambda x : " ".join([word for word in x.
 ↪split() if len(word)>3]))
CONG['clean_tweet'] = CONG['tweet'].apply(lambda x : " ".join([word for word in
 ↪x.split() if len(word)>3]))
```

[100]:
```python
BJP.head() , CONG.head()
```

[100]:
```
(  party_name                                       tweet  target  \
 0         BJP   ndtv anchor let go over to aap live press conf…       0
 1         BJP   sambit patra attacks rahul gandhi over his cow…       0
 2         BJP   crediting the bjp with taking development to s…       1
 3         BJP   ktrbrs do do false allegations on iasassociati…       0
 4         BJP   gujarat assembly yet to get rs cr as gst compe…       1

                                         clean_tweet
 0  ndtv anchor over live press conference next th…
 1  sambit patra attacks rahul gandhi over cowardi…
 2  crediting with taking development smaller citi…
 3  ktrbrs false allegations iasassociation smart …
 4  gujarat assembly compensation says minister ar…  ,
    party_name                                       tweet  target  \
```

```
0    Congress   spending shocker cbo latest debt projection sh…       0
1    Congress   will you vote for congress in 2024 congress co…       1
2    Congress        triviapotus we need termlimits for congress        1
3    Congress   eam s jaishankar hit out at congress for quad …       0
4    Congress   is this why congress supported amp celebrated …       1

                                        clean_tweet
0    spending shocker latest debt projection should…
1    will vote congress 2024 congress congresssanka…
2                   triviapotus need termlimits congress
3    jaishankar congress quad reluctance rahul gand…
4    this congress supported celebrated arrest mani…  )
```

[101]:
```python
# Individual Words Considered as tokens.
tokenized_tweet_bjp = BJP['clean_tweet'].apply(lambda x : x.split())
tokenized_tweet_cong = CONG['clean_tweet'].apply(lambda x : x.split())
```

[102]:
```python
tokenized_tweet_bjp.head() , tokenized_tweet_cong.head()
```

[102]:
```
(0    [ndtv, anchor, over, live, press, conference, …
 1    [sambit, patra, attacks, rahul, gandhi, over, …
 2    [crediting, with, taking, development, smaller…
 3    [ktrbrs, false, allegations, iasassociation, s…
 4    [gujarat, assembly, compensation, says, minist…
 Name: clean_tweet, dtype: object,
 0    [spending, shocker, latest, debt, projection, …
 1    [will, vote, congress, 2024, congress, congres…
 2          [triviapotus, need, termlimits, congress]
 3    [jaishankar, congress, quad, reluctance, rahul…
 4    [this, congress, supported, celebrated, arrest…
 Name: clean_tweet, dtype: object)
```

[103]:
```python
# Stem the words.
from nltk.stem.porter import PorterStemmer
stemmer = PorterStemmer()
tokenized_tweet_bjp = tokenized_tweet_bjp.apply(lambda sentence : [stemmer.
 ↪stem(word) for word in sentence])
tokenized_tweet_cong = tokenized_tweet_cong.apply(lambda sentence : [stemmer.
 ↪stem(word) for word in sentence])
```

[104]:
```python
tokenized_tweet_bjp.head() , tokenized_tweet_cong.head()
```

[104]:
```
(0    [ndtv, anchor, over, live, press, confer, next…
 1    [sambit, patra, attack, rahul, gandhi, over, c…
 2    [credit, with, take, develop, smaller, citi, t…
 3    [ktrbr, fals, alleg, iasassoci, smart, kapilsi…
 4    [gujarat, assembl, compens, say, minist, arjun…
```

```
Name: clean_tweet, dtype: object,
0    [spend, shocker, latest, debt, project, should…
1    [will, vote, congress, 2024, congress, congres…
2              [triviapotu, need, termlimit, congress]
3    [jaishankar, congress, quad, reluct, rahul, ga…
4    [thi, congress, support, celebr, arrest, manis…
Name: clean_tweet, dtype: object)
```

[105]:
```python
# Combine words into single sentence.
for i in range(len(tokenized_tweet_bjp)):
    tokenized_tweet_bjp[i] = " ".join(tokenized_tweet_bjp[i])
for i in range(len(tokenized_tweet_cong)):
    tokenized_tweet_cong[i] = " ".join(tokenized_tweet_cong[i])
```

[106]:
```python
tokenized_tweet_bjp.head() , tokenized_tweet_cong.head()
```

[106]:
```
(0    ndtv anchor over live press confer next thing …
1    sambit patra attack rahul gandhi over cowardic…
2    credit with take develop smaller citi town pmm…
3    ktrbr fals alleg iasassoci smart kapilsib pbhu…
4    gujarat assembl compens say minist arjunmodhwa…
Name: clean_tweet, dtype: object,
0    spend shocker latest debt project should stun …
1    will vote congress 2024 congress congresssanka…
2                     triviapotu need termlimit congress
3    jaishankar congress quad reluct rahul gandhi g…
4    thi congress support celebr arrest manishsisod…
Name: clean_tweet, dtype: object)
```

[107]:
```python
BJP['clean_tweet'] = tokenized_tweet_bjp
CONG['clean_tweet'] = tokenized_tweet_cong
```

[108]:
```python
BJP.head() , CONG.head()
```

[108]:
```
(  party_name                                        tweet  target  \
0        BJP  ndtv anchor let go over to aap live press conf…       0
1        BJP  sambit patra attacks rahul gandhi over his cow…       0
2        BJP  crediting the bjp with taking development to s…       1
3        BJP  ktrbrs do do false allegations on iasassociati…       0
4        BJP  gujarat assembly yet to get rs cr as gst compe…       1

                                         clean_tweet
0  ndtv anchor over live press confer next thing …
1  sambit patra attack rahul gandhi over cowardic…
2  credit with take develop smaller citi town pmm…
3  ktrbr fals alleg iasassoci smart kapilsib pbhu…
4  gujarat assembl compens say minist arjunmodhwa…  ,
```

```
       party_name                                                tweet  target  \
    0   Congress   spending shocker cbo latest debt projection sh…       0
    1   Congress   will you vote for congress in 2024 congress co…       1
    2   Congress          triviapotus we need termlimits for congress    1
    3   Congress   eam s jaishankar hit out at congress for quad …       0
    4   Congress   is this why congress supported amp celebrated …       1


                                         clean_tweet
    0   spend shocker latest debt project should stun …
    1   will vote congress 2024 congress congresssanka…
    2                   triviapotu need termlimit congress
    3   jaishankar congress quad reluct rahul gandhi g…
    4   thi congress support celebr arrest manishsisod…  )
```

[109]:
```python
# It Will combine all sentences into a single string.
all_words = " ".join([sentence for sentence in BJP['clean_tweet']])

# visualize The Frequent Words.
wordcloud = WordCloud(width = 800 , height = 500 , random_state = 42 ,
 max_font_size = 100).generate(all_words)

# plot the graph.
plt.figure(figsize = (16,8))
plt.imshow(wordcloud , interpolation = "bilinear")
plt.title("Visualization of frequent words of bjp party tweets.")
plt.axis("off")
plt.show()
```

Visualization of frequent words of bjp party tweets.

[110]:
```python
# Frequent Words Visualization For Positive Words.
all_words = " ".join([sentence for sentence in
    BJP['clean_tweet'][BJP['target']==0]])

# visualize The Frequent Words.
wordcloud = WordCloud(width = 800 , height = 500 , random_state = 42 ,
    max_font_size = 100).generate(all_words)

# plot the graph.
plt.figure(figsize = (16,8))
plt.imshow(wordcloud , interpolation = "bilinear")
plt.axis("off")
plt.show()
```
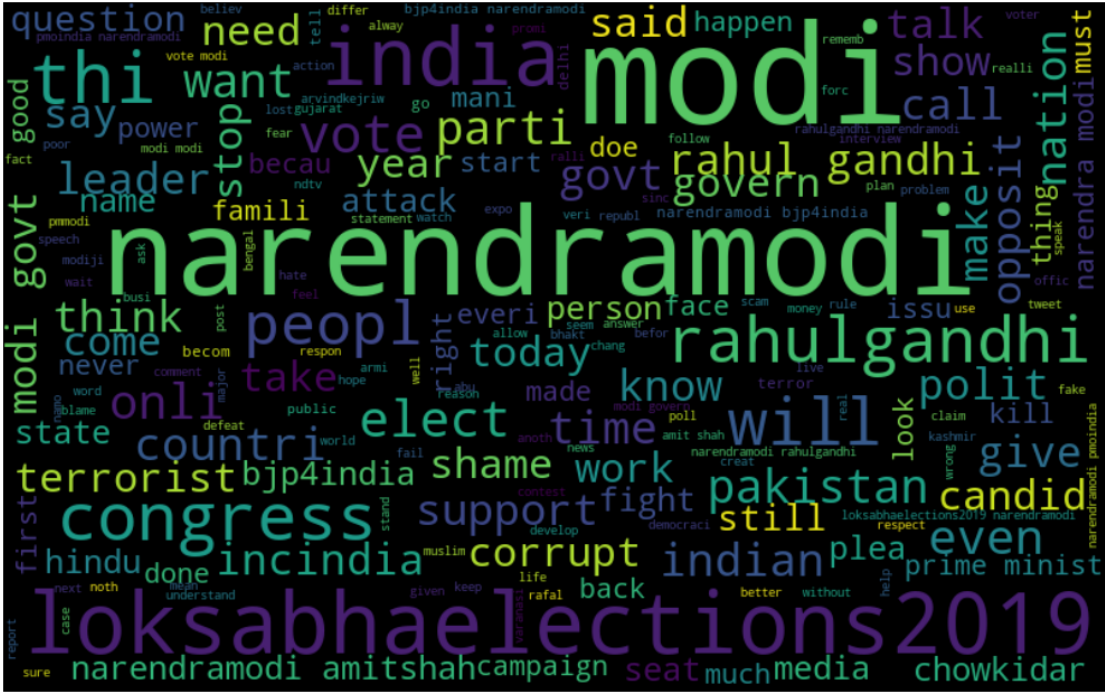
```
[111]: # Frequent Words Visualization For Negative Words.
       all_words = " ".join([sentence for sentence in␣
         ↪BJP['clean_tweet'][BJP['target']==1]])

       # visualize The Frequent Words.
       wordcloud = WordCloud(width = 800 , height = 500 , random_state = 42 ,␣
         ↪max_font_size = 100).generate(all_words)

       # plot the graph.
       plt.figure(figsize = (16,8))
       plt.imshow(wordcloud , interpolation = "bilinear")
       plt.axis("off")
       plt.show()
```

```
[112]:  # It Will combine all sentences into a single string.
        all_words = " ".join([sentence for sentence in CONG['clean_tweet']])

        # visualize The Frequent Words.
        wordcloud = WordCloud(width = 800 , height = 500 , random_state = 42 ,
          ↪max_font_size = 100).generate(all_words)

        # plot the graph.
        plt.figure(figsize = (16,8))
        plt.imshow(wordcloud , interpolation = "bilinear")
        plt.title("Visualization of frequent words of congress party tweets.")
        plt.axis("off")
        plt.show()
```

Visualization of frequent words of congress party tweets.

[113]:
```python
# Frequent Words Visualization For Positive Words.
all_words = " ".join([sentence for sentence in
 ↪CONG['clean_tweet'][CONG['target']==0]])

# visualize The Frequent Words.
wordcloud = WordCloud(width = 800 , height = 500 , random_state = 42 ,
 ↪max_font_size = 100).generate(all_words)

# plot the graph.
plt.figure(figsize = (16,8))
plt.imshow(wordcloud , interpolation = "bilinear")
plt.axis("off")
plt.show()
```
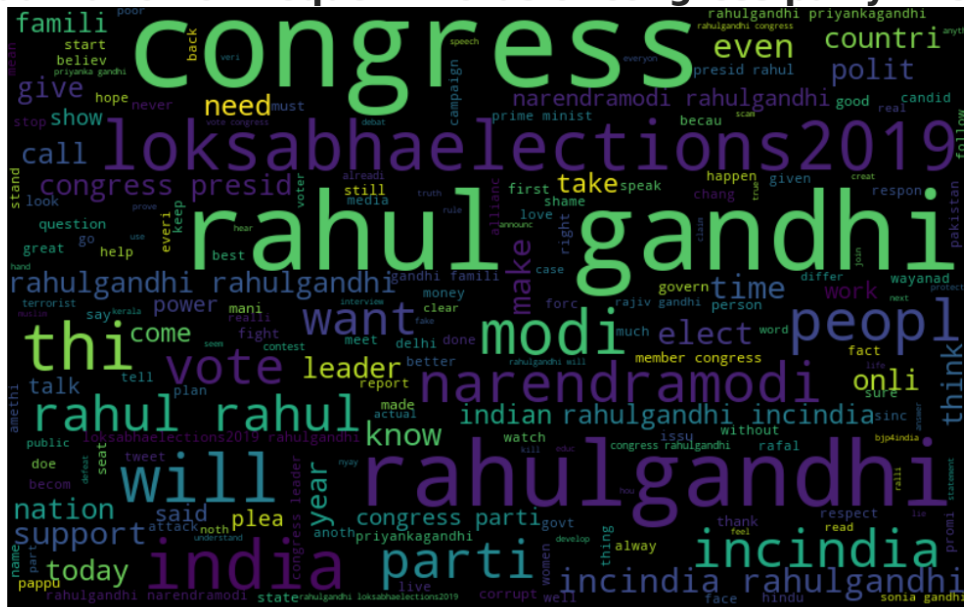
```
[114]: # Frequent Words Visualization For Negative Words.
       all_words = " ".join([sentence for sentence in␣
         ↪CONG['clean_tweet'][CONG['target']==1]])

       # visualize The Frequent Words.
       wordcloud = WordCloud(width = 800 , height = 500 , random_state = 42 ,␣
         ↪max_font_size = 100).generate(all_words)

       # plot the graph.
       plt.figure(figsize = (16,8))
       plt.imshow(wordcloud , interpolation = "bilinear")
       plt.axis("off")
       plt.show()
```

1 HuggingFace's transformers library.

```
[115]: BJP.head()
```

```
[115]:    party_name                                              tweet  target  \
       0        BJP  ndtv anchor let go over to aap live press conf…       0
       1        BJP  sambit patra attacks rahul gandhi over his cow…       0
       2        BJP  crediting the bjp with taking development to s…       1
       3        BJP  ktrbrs do do false allegations on iasassociati…      0
       4        BJP  gujarat assembly yet to get rs cr as gst compe…      1

                                        clean_tweet
       0  ndtv anchor over live press confer next thing …
       1  sambit patra attack rahul gandhi over cowardic…
       2  credit with take develop smaller citi town pmm…
       3  ktrbr fals alleg iasassoci smart kapilsib pbhu…
       4  gujarat assembl compens say minist arjunmodhwa…
```

```
[116]: BJP.reset_index(inplace=True)
```

```
[117]: BJP = BJP.head(1000)
```

```python
[118]: # using HuggingFace's transformers library to perform sentiment analysis on␣
       ↪political tweets:
       import torch
       from transformers import pipeline, set_seed
       from tqdm.notebook import tqdm

       set_seed(42)
       sentiment_pipeline = pipeline("sentiment-analysis")

       result = {}
       for i, row in tqdm(BJP.iterrows(), total=len(BJP)):
           try:
               text = row['tweet']
               myid = row['index']
               result[myid] = sentiment_pipeline(text)[0]['label']
           except RuntimeError:
               print(f'Broke for id {myid}')
```

No model was supplied, defaulted to distilbert-base-uncased-finetuned-
sst-2-english and revision af0f99b (https://huggingface.co/distilbert-base-
uncased-finetuned-sst-2-english).
Using a pipeline without specifying a model name and revision in production is
not recommended.

```
    0%|              | 0/1000 [00:00<?, ?it/s]
```

```python
[119]: # Converting Dictionary values into dataframe.
       transformer_bjp = pd.DataFrame([result]).T
       transformer_bjp.head()
```

```
[119]:           0
       0  NEGATIVE
       1  NEGATIVE
       2  POSITIVE
       3  NEGATIVE
       4  NEGATIVE
```

```python
[120]: BJP['label'] = transformer_bjp[0]
```

```python
[121]: # observation between Target column and label column for head 5 tweets
       BJP.head()
```

```
[121]:    index party_name                                        tweet  \
       0      0        BJP  ndtv anchor let go over to aap live press conf…
       1      1        BJP  sambit patra attacks rahul gandhi over his cow…
       2      2        BJP  crediting the bjp with taking development to s…
       3      3        BJP  ktrbrs do do false allegations on iasassociati…
       4      4        BJP  gujarat assembly yet to get rs cr as gst compe…
```

```
      target                             clean_tweet      label
0          0  ndtv anchor over live press confer next thing …  NEGATIVE
1          0  sambit patra attack rahul gandhi over cowardic…  NEGATIVE
2          1  credit with take develop smaller citi town pmm…  POSITIVE
3          0  ktrbr fals alleg iasassoci smart kapilsib pbhu…  NEGATIVE
4          1  gujarat assembl compens say minist arjunmodhwa…  NEGATIVE
```

[122]: `# observation between Target column and label column for tail 5 tweets`
`BJP.tail()`

[122]:
```
        index party_name                                         tweet  \
995       995        BJP  aap mp sanjay singh describes the arrest of ma…
996       996        BJP  there was no corruption in delhi but for past …
997       997        BJP  rahulgandhi is a fascist bjp supporter he is s…
998       998        BJP  narendramodi bjp4india many we voted u for hop…
999       999        BJP  nizambad mp arvind dharmapuri attended praja g…

      target                             clean_tweet      label
995        0  sanjay singh describ arrest manish sisodia hei…  NEGATIVE
996        0  there corrupt delhi past year under congress r…  NEGATIVE
997        0  rahulgandhi fascist support say after articl a…  NEGATIVE
998        0  narendramodi bjp4india mani vote hope ach fail…  NEGATIVE
999        1  nizambad arvind dharmapuri attend praja gosa b…  POSITIVE
```
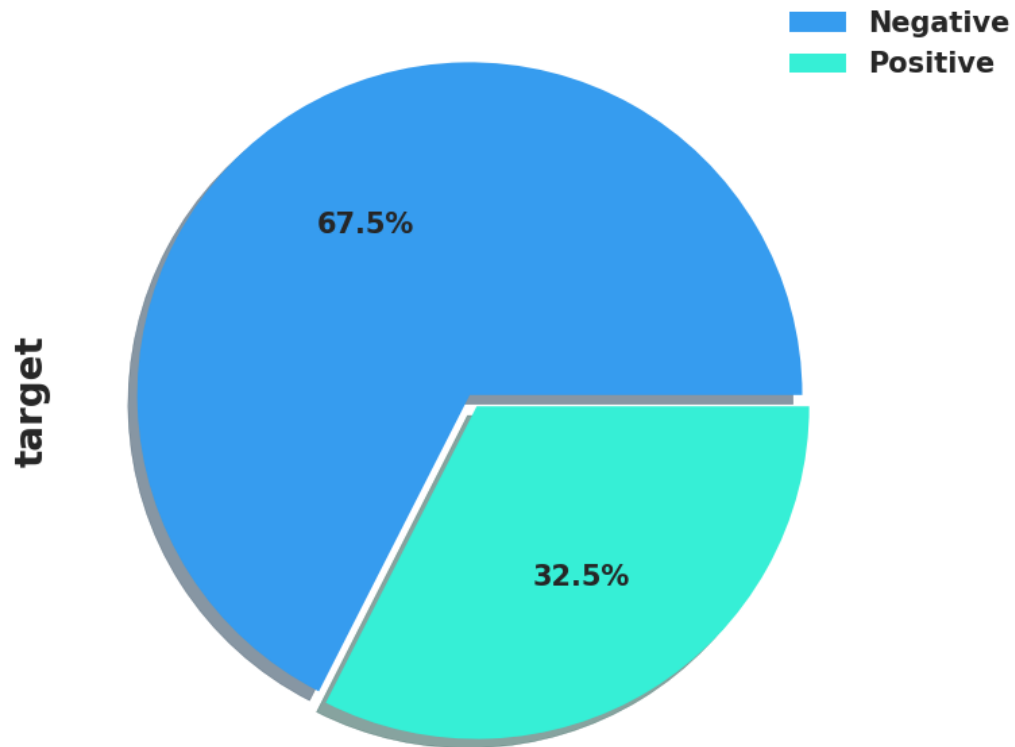
[123]:
```python
BJP['target'].value_counts().plot.pie(explode=(0.02,0.
 02),colors=['#369cef','#36efd6'],autopct='%1.1f%%',fontsize =
 15,shadow=True,labels=None)
plt.title("Percentage Distribution of Tweets for BJP")
labels=BJP['target'].value_counts().index.tolist()
for i in range(len(labels)):
    # replace 0 with Positive.
    if labels[i] == 0:
        labels[i] = 'Positive'

    # replace 1 with Negative
    if labels[i] == 1:
        labels[i] = 'Negative'

plt.legend(bbox_to_anchor=(0.85, 1), loc='upper left', labels=labels)
plt.show()
```

Percentage Distribution of Tweets for BJP

Negative
Positive

67.5%

32.5%

target

```
[124]: BJP['label'].value_counts().plot.pie(explode=(0.02,0.
       ↪02),colors=['#369cef','#36efd6'],autopct='%1.1f%%',fontsize =
       ↪15,shadow=True,labels=None)
       plt.title("Percentage Distribution of Tweets for BJP")
       labels=BJP['label'].value_counts().index.tolist()
       plt.legend(bbox_to_anchor=(0.85, 1), loc='upper left', labels=labels)
       plt.show()
```

Percentage Distribution of Tweets for BJP
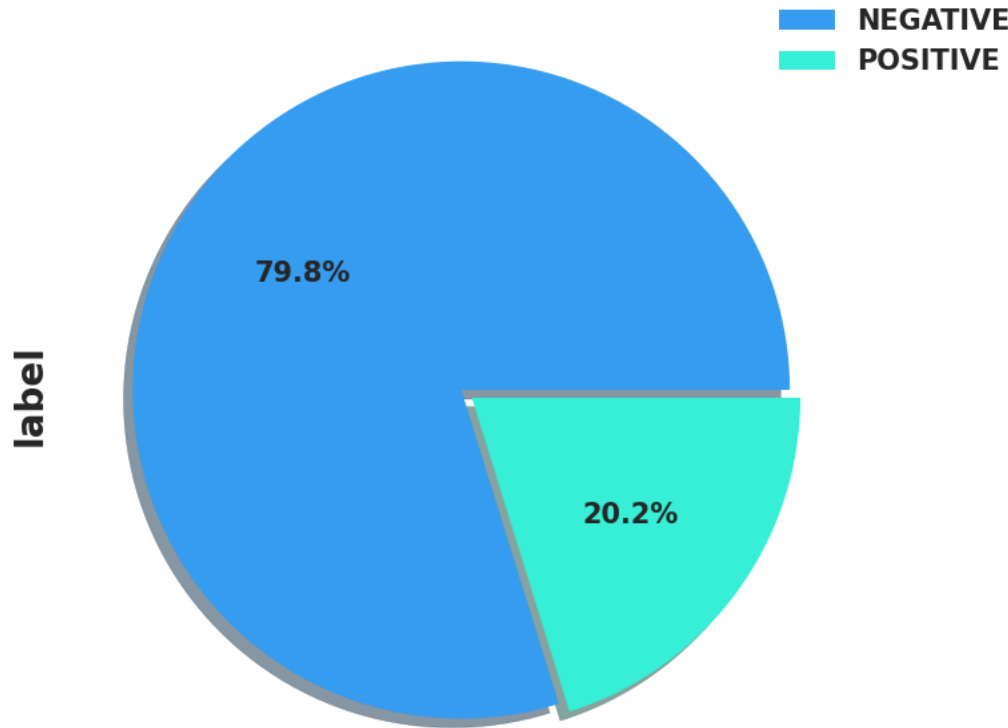

```
[125]: CONG.reset_index(inplace=True)
```

```
[126]: CONG = CONG.head(1000)
       CONG.head()
```

```
[126]:    index party_name                                              tweet  \
       0      0   Congress   spending shocker cbo latest debt projection sh…
       1      1   Congress   will you vote for congress in 2024 congress co…
       2      2   Congress        triviapotus we need termlimits for congress
       3      3   Congress   eam s jaishankar hit out at congress for quad …
       4      4   Congress   is this why congress supported amp celebrated …

          target                                         clean_tweet
       0       0   spend shocker latest debt project should stun …
       1       1   will vote congress 2024 congress congresssanka…
       2       1               triviapotu need termlimit congress
       3       0   jaishankar congress quad reluct rahul gandhi g…
       4       1   thi congress support celebr arrest manishsisod…
```

```
[127]: result = {}
       for i, row in tqdm(CONG.iterrows(), total=len(CONG)):
           try:
               text = row['tweet']
               myid = row['index']
               result[myid] = sentiment_pipeline(text)[0]['label']
           except RuntimeError:
               print(f'Broke for id {myid}')
```

```
  0%|          | 0/1000 [00:00<?, ?it/s]
```

```
[128]: # Converting Dictionary values into dataframe.
       transformer_cong = pd.DataFrame([result]).T
       transformer_cong.head()
```

```
[128]:        0
       0  NEGATIVE
       1  POSITIVE
       2  NEGATIVE
       3  NEGATIVE
       4  NEGATIVE
```

```
[129]: CONG['label'] = transformer_cong[0]
```

```
[130]: # observation between Target column and label column for head 5 tweets
       CONG.head()
```

```
[130]:    index party_name                                     tweet  \
       0      0   Congress   spending shocker cbo latest debt projection sh…
       1      1   Congress   will you vote for congress in 2024 congress co…
       2      2   Congress          triviapotus we need termlimits for congress
       3      3   Congress   eam s jaishankar hit out at congress for quad …
       4      4   Congress   is this why congress supported amp celebrated …

          target                                  clean_tweet      label
       0       0  spend shocker latest debt project should stun …  NEGATIVE
       1       1  will vote congress 2024 congress congresssanka…  POSITIVE
       2       1              triviapotu need termlimit congress  NEGATIVE
       3       0  jaishankar congress quad reluct rahul gandhi g…  NEGATIVE
       4       1  thi congress support celebr arrest manishsisod…  NEGATIVE
```

```
[131]: # observation between Target column and label column for tail 5 tweets
       CONG.tail()
```

```
[131]:      index party_name                                     tweet  \
       995    995   Congress   soniagandhi announces retirement from politics…
       996    996   Congress   incplenaryincg himachal cm sukhvindersinghsukh…
```

```
997    997    Congress    joebiden if congress passes a national abortio…
998    998    Congress    senior congress leader shashi tharoor on satur…
999    999    Congress    waglenikhil kanhaiyakumar he is anti national …

       target                              clean_tweet      label
995         1    soniagandhi announc retir from polit sacrif ho…   POSITIVE
996         0    incplenaryincg himach sukhvindersinghsukhu sai…   NEGATIVE
997         0    joebiden congress pass nation abort they need …   NEGATIVE
998         1    senior congress leader shashi tharoor saturday…   POSITIVE
999         0    waglenikhil kanhaiyakumar anti nation heard wa…   POSITIVE
```
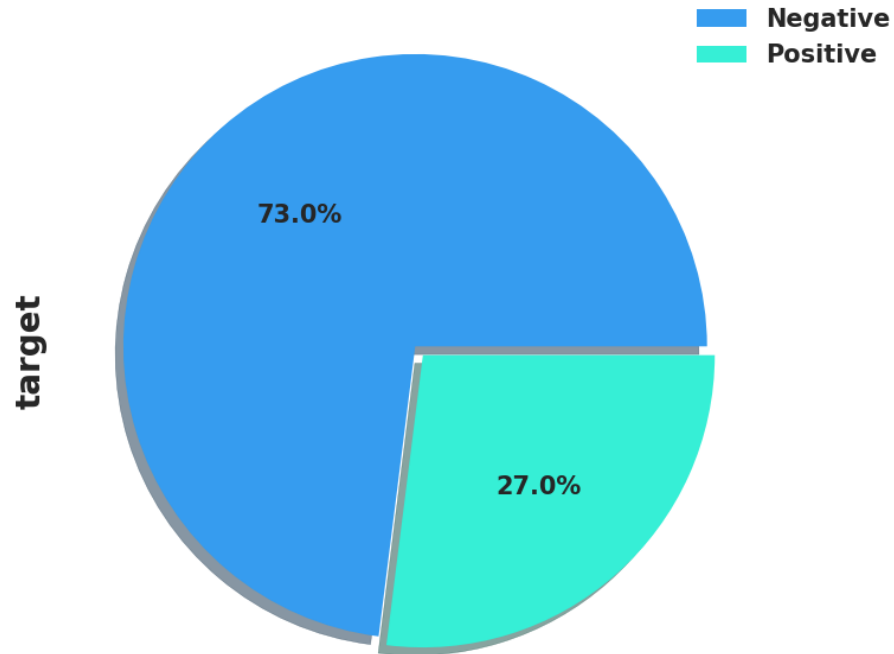
```python
[132]:  CONG['target'].value_counts().plot.pie(explode=(0.02,0.
        ↪02),colors=['#369cef','#36efd6'],autopct='%1.1f%%',fontsize =
        ↪15,shadow=True,labels=None)
        plt.title("Percentage Distribution of Tweets for Congress")
        labels=CONG['target'].value_counts().index.tolist()
        for i in range(len(labels)):
            # replace 0 with Positive.
            if labels[i] == 0:
                labels[i] = 'Positive'

            # replace 1 with Negative
            if labels[i] == 1:
                labels[i] = 'Negative'

        plt.legend(bbox_to_anchor=(0.85, 1), loc='upper left', labels=labels)
        plt.show()
```

Percentage Distribution of Tweets for Congress

Negative
Positive

73.0%

target

27.0%

```
[133]: CONG['label'].value_counts().plot.pie(explode=(0.02,0.
       ↪02),colors=['#369cef','#36efd6'],autopct='%1.1f%%',fontsize =
       ↪15,shadow=True,labels=None)
       plt.title("Percentage Distribution of Tweets for Congress")
       labels=CONG['label'].value_counts().index.tolist()
       plt.legend(bbox_to_anchor=(0.85, 1), loc='upper left', labels=labels)
       plt.show()
```

Percentage Distribution of Tweets for Congress

NEGATIVE
POSITIVE

74.5%

label

25.5%
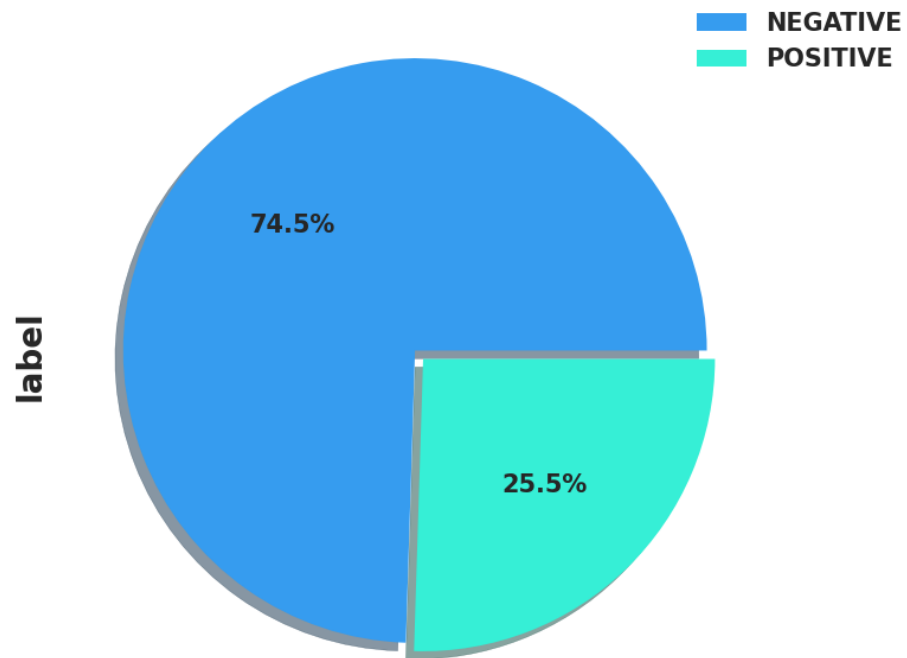
Comment your observation

Thank you