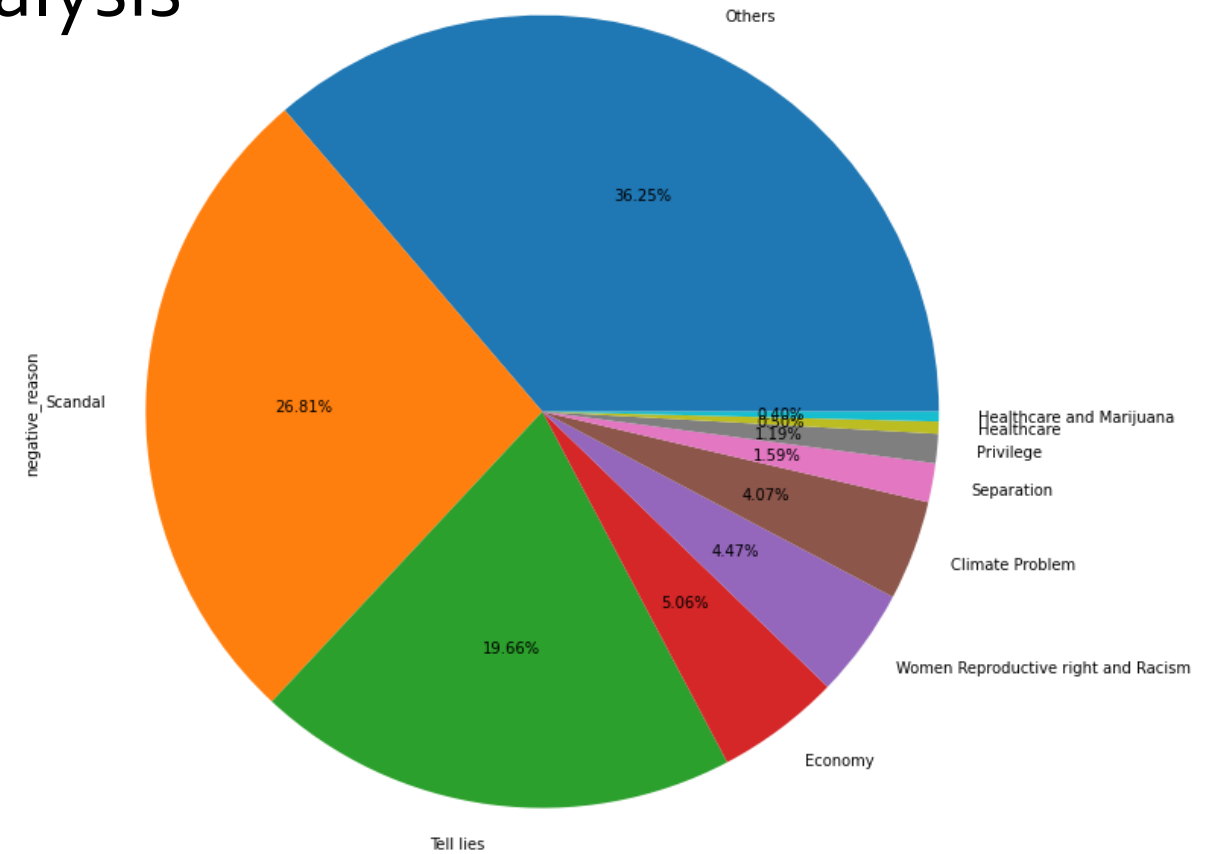
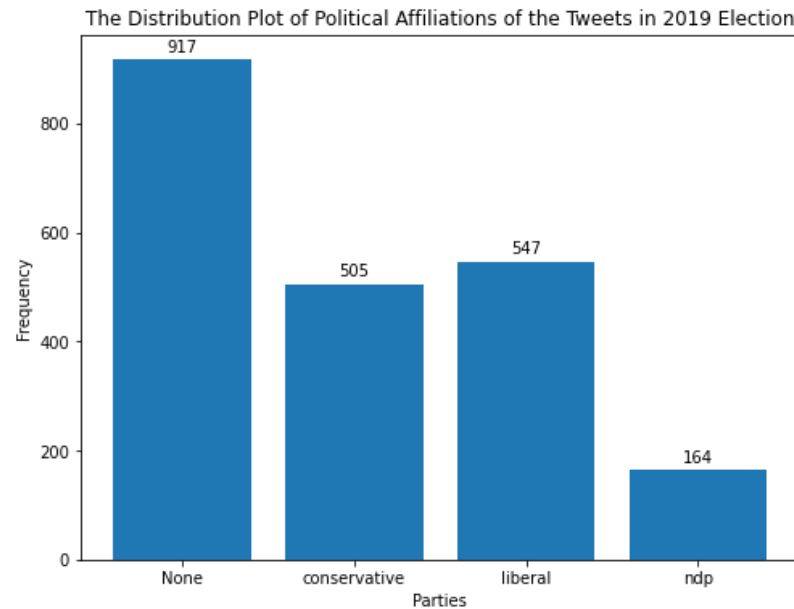


Findings from Exploratory analysis

– Data set Structure



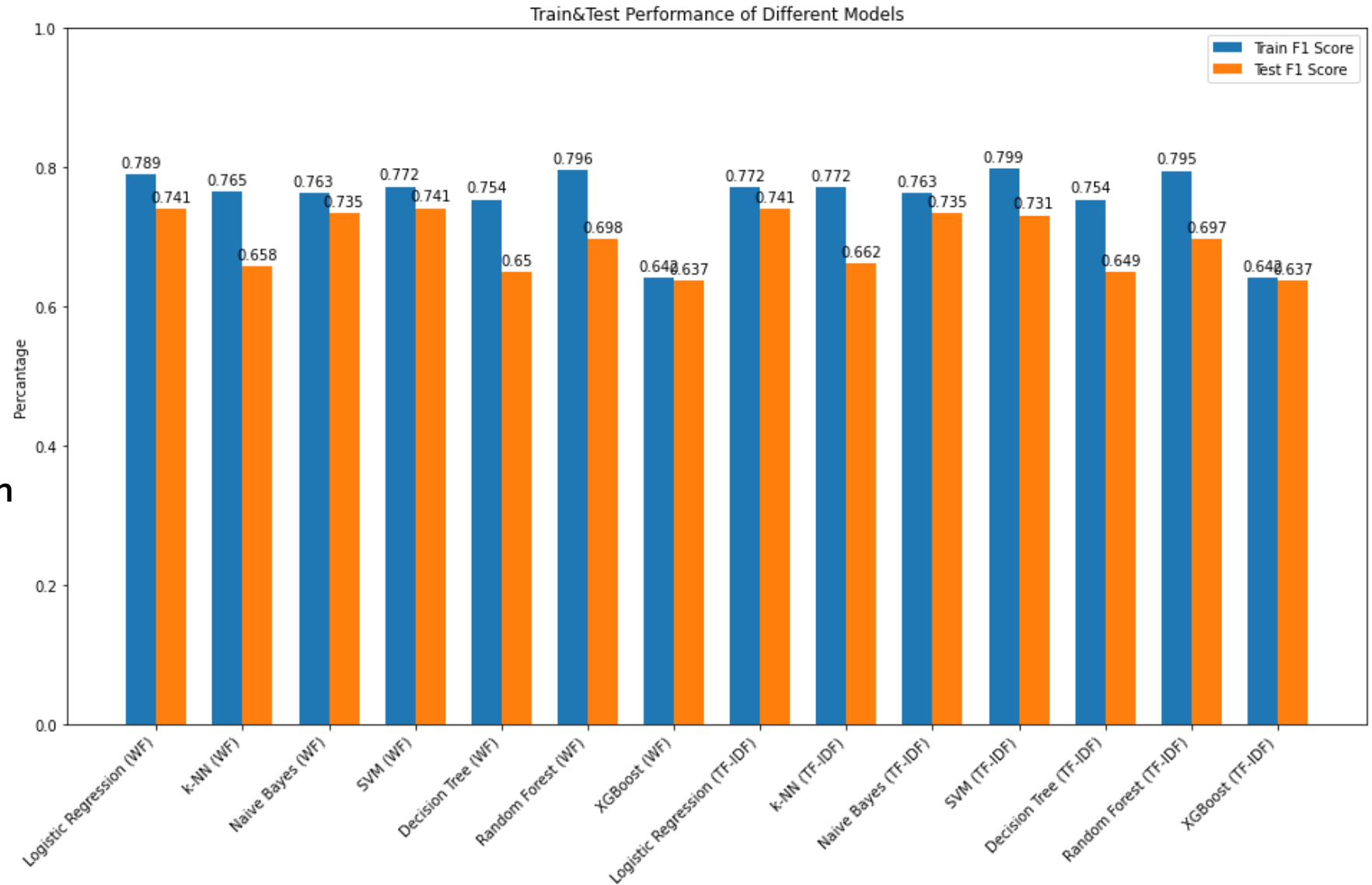
- There are 917 (42.99%) tweets not related to the three major parties. Among the three major parties, "Liberal Party" is mentioned in 547 (25.64%) tweets while "Conservative Party" is slightly less popular than "Liberal Party" with 505 (23.68%) tweets. NDP is mentioned less than others, with 164 tweets (7.69%).
- As shown in the pie chart, despite 36.25% reason from "others", the major reason for tweets been negative in 2019 Canadian election is "Scandal" which occupies 26.81% and "Tell Lies" which occupies 19.66%.

[illegible]

- Love
- Good
- LOL
- haha
- Nice

Compare the Performance between Different Models

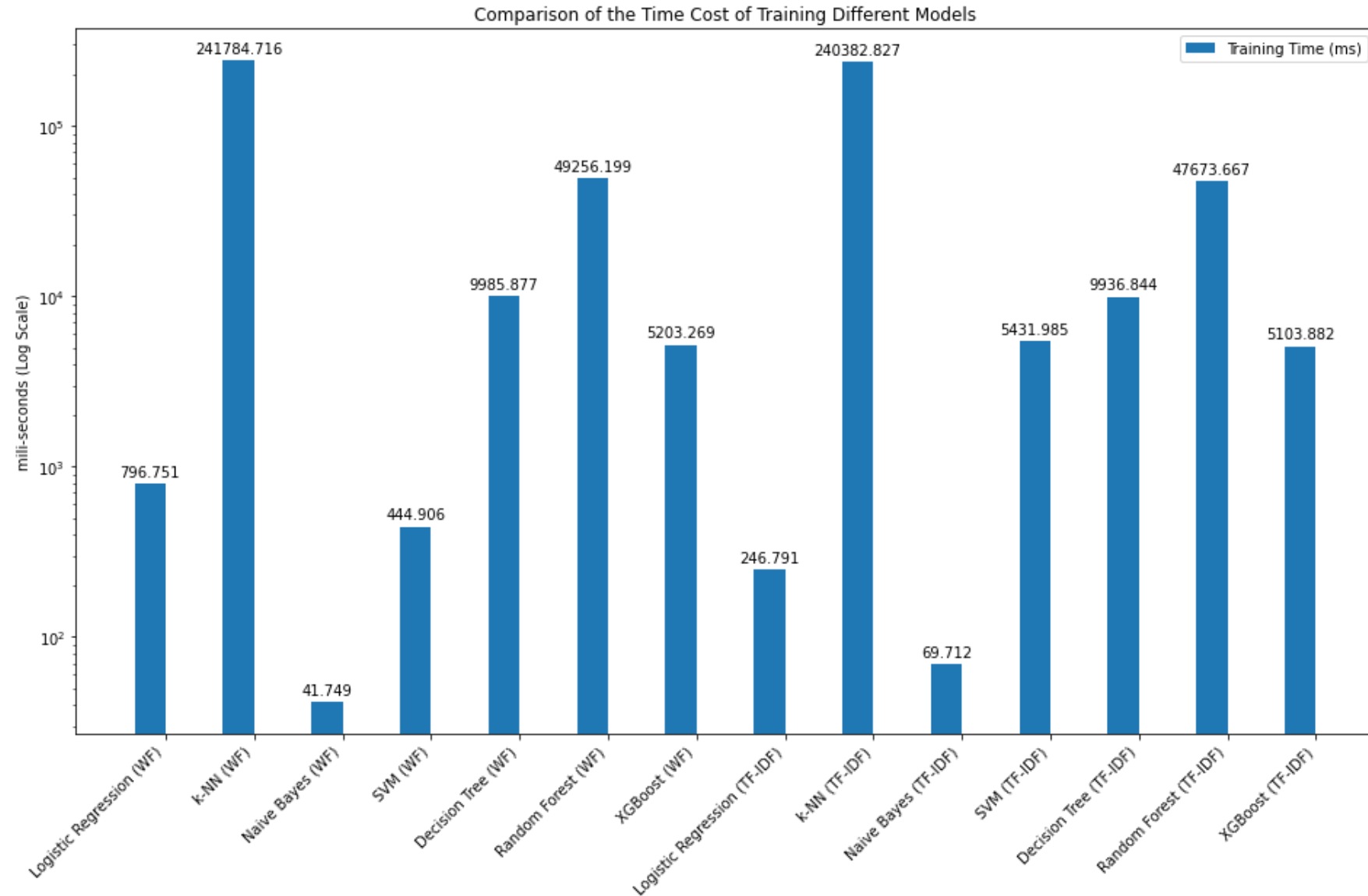
- Perform Best:**
1. Logistic Regression
 2. SVM
 3. Naïve Bayes



Compare the Time Cost of Training Different Models

Perform Best:

1. Naïve Bayes
2. Logistic Regression
3. SVM



Liberal

vs.

Conservative

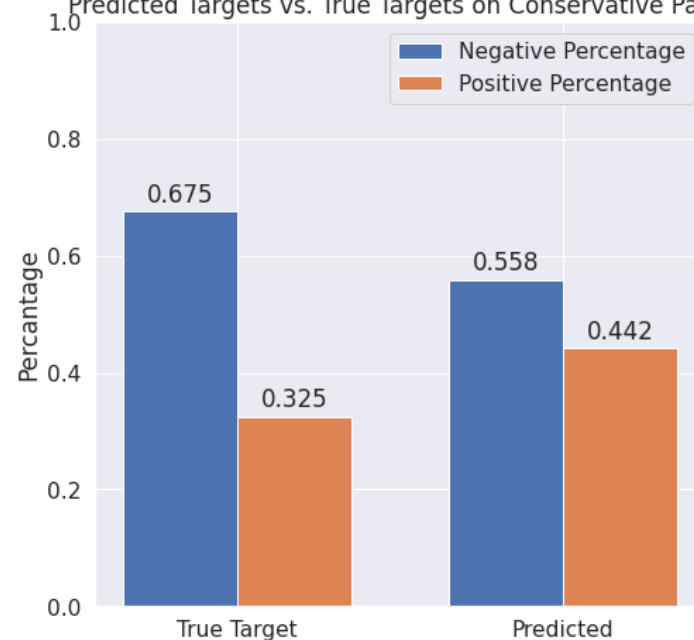
vs.

NDP

Predicted Targets vs. True Targets on Liberal Party



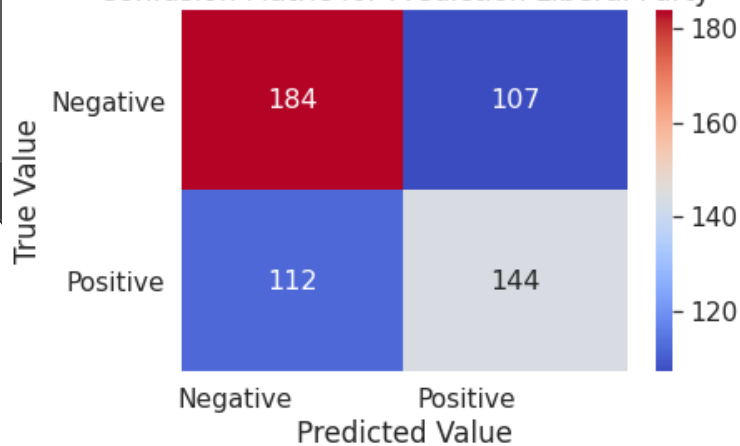
Predicted Targets vs. True Targets on Conservative Party



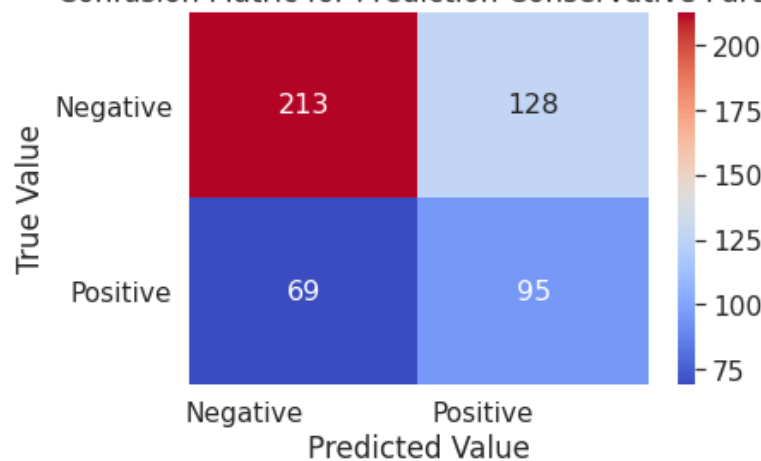
Predicted Targets vs. True Targets on NDP Party



Confusion Matric for Prediction Liberal Party



Confusion Matric for Prediction Conservative Party



Confusion Matric for NDP

