

A Case Study

on

**“Customer Sentiment Analysis through Text Mining“**

Data Mining In Engineering

Spring – 2019

Group No. – 1

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**Customer Sentiment Analysis through Text Mining**

Background

Tweets have lot more information than we generally think. Every tweets indicates some kind of emotion. Some of them are positive while others are negative. These emotions can be used for understanding customer attitudes towards a brand. So we wanted to do Sentiment analysis using Text Mining for understanding the attitudes of customer.

Data Collection

This data set is taken from Kaggle. The key attributes for this data set are 1.)

tweet id 2.) Text in the tweet 3.) ID of the tweet 4.) The user who did that

tweet 5.) The date of the tweet.

The quality of the data is quite good as there are very less no. of missing value.

Problem Statement

Our Objective is to prepare a model for identifying customer attitude towards a brand based on their tweets on twitter.

Possible solution

* This problem illustrates classification Task(Supervised learning) and we are trying to classify different kinds of sentiments. So Before starting the sentiment analysis, Text reduction and Vocabulary reduction are required in order to remove redundant and insignificant words from the sentences.
* After preprocessing we need to divide the data into Training and Validation sets. Since this is a classification type problem therefore we can use anyone of the following techniques:

Techniques : Text Mining

Support Vector Machine

Bernoulli Naïve Bayes

* Performance: To check the performance of our model we can plot the Receiver Operating Curve (ROC) and AUC. Apart from this Confusion Matrix can be drawn.