Advanced Analytics Approach for Recall in Automobile Industry
ABSTRACT

GM had one of the biggest recalls in 2014 which involved cars such as Chevrolet Malibu, Chevrolet Impala, Monte Carlo, Cadillac CTS and Cadillac SRX3. In May 2014, GM had recalled more cars and trucks in 2014 than it sold in the last five years since it filed for bankruptcy. This paper is used to predict recall using social media analytics.

METHODS

The websites and NHTSA complaints were scraped to collect the complaints. The unstructured data such as customer comments or feedback can enhance the power of existing predictive models. The numeric data such as mileage of the cars where the issue is reported, severity issue rating and the cost incurred for the repair is captured in the numeric and the comments are captured as text. Wanted to analyse the predictive power of the text.

RESULTS

Cluster analysis

Text topic analysis
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RESULTS CONTINUED (CLICK TO EDIT)

Text rule builder

The SVDs which are statistically significant are then sent to text builder to understand the key factors, decision tree is used to get the most important factors, text cluster and text topic which in turn can provide a final set of classification rules for both recall and no recall predictions in the total data for the GM cars.

2. carcomplaints.com - It was started in year 2000 and was active in social media to get the buzz
3. kbb.com was launched in 1995 and is pioneer in automobile sector

CONCLUSIONS

REFERENCES