Understanding customer satisfaction with text mining reviews and Net Promoter Scores (NPS).

The NPS, together with satisfaction ratings of customer touchpoints, is part of Customer Experience Management (CEM) in many companies. The NPS is not only used to evaluate customer satisfaction, but also to understand what pain points should be eliminated. By combining insights from sentiment and NPS score analysis, the CEM team can make better decisions when allocating resources to solve specific issues.

This Innovation Note demonstrates how a Guided Analytics Customer Satisfaction Application enables the CEM team and other analysts to understand customer sentiment. The data science team creates a KNIME workflow using KNIME Analytics Platform and deploys it to KNIME Server. Analysts are then able to interact with various touchpoints and work towards solving several business problems.

Firstly, it allows marketing analysts to analyze the NPS, as well as number of promoters and detractors, and cross checks these metrics against competitors. Secondly, it efficiently guides analysts to defining the correlation between customer satisfaction on individual touchpoints and overall customer satisfaction with the company. Thirdly, the application generates a customer sentiment analysis, using a word cloud representation (see Fig. 1) of positive and negative comments, and prediction of sentiment for arbitrary reviews.

Text mining capabilities within KNIME Analytics Platfrom, plus the possibility to separate both text preparation and analysis, as well as model training and usage, are essential to creating a business analyst-friendly application.

Fig. 1: Word cloud depicting positive customer sentiment.

Results:
Using a KNIME Guided Analytics application for customer satisfaction unifies quantitative and qualitative metrics to understand customer experience based on:

- A Net Promoter Score (NPS)
- A Word cloud of negative and positive comments
- The Correlation of NPS score with touchpoints on customer satisfaction
- A sentiment prediction based on arbitrary customer feedback

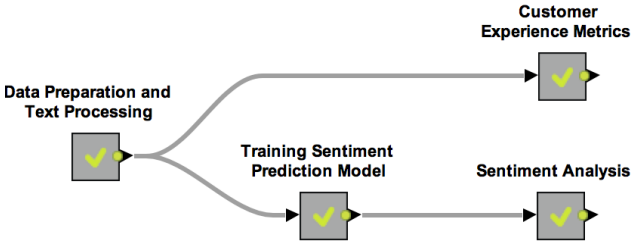

Fig 2. High-level KNIME workflow

A KNIME workflow, deployed on KNIME Server provides a business analyst-friendly application for discovering actionable insights which can be used by customer experience teams to better understand customer satisfaction and plan which service areas can be improved.

This Innovation Note was written by our partner: epam

Try it out for yourself!
Access reference workflows and data from within KNIME via the Examples Server:
50_Applications/45_Customer_Experience_and_Sentiment_Analysis

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