

Problem statement formation

Following the leadership change at Starbucks' in August 2024, the goal of this project is to use yelp review data dating between 2000 - 2023 to 1) build a sentiment analysis model which delivers 80% accuracy for classification 2) determine the top 3 problems the incoming CEO can focus on in the first 12 months of his role to improve customer satisfaction.

Context

In August 2024, Starbucks announced Laxman Narasimhan would leave the company. Laxman has been replaced by former Chipotle CEO, Brian Niccol. In the coming months, it will be important for Niccol to hit the ground running given the nature of Narasimhan's exit. One way to assess Niccol's performance will be through customer reviews and ratings of Starbucks' stores. Although customer feedback is a lagging indicator of performance, Starbucks can use these valuable insights for future improvements. This project will explore customer sentiment towards Starbucks and extract insights on what drives that sentiment. The methods can be applied to future reviews as time passes with Niccol in his new role.

Criteria for success

- Complete a sentiment analysis on Starbucks and classify reviews as positive, negative, or neutral with an accuracy score of at least 80% on the validation set.
- Find themes contributing to different sentiments using unsupervised learning techniques

Scope of solution space

The scope of the project is Starbucks stores in the United States.

Constraints

May not have a large enough dataset to create predictions of high accuracy. There may be an imbalance in the types of ratings given where reviews entered online are those with more extreme ratings.

Stakeholders

VP of Research, Development & Engineering - Ecolab
Senior Marketing Manager, Starbucks - Ecolab
Senior Technical Account Manager, Starbucks - Ecolab
Assistant Vice President Global Accounts, Starbucks

Data sources

Starbucks Reviews - [Starbucks Reviews Dataset \(kaggle.com\)](https://www.kaggle.com/datasets/starbucks/starbucks-reviews)