Using Text Analytics on Chick-fil-A's google reviews

This report summarizes the findings by analyzing 1,000 customer reviews of Chick-fil-A restaurant located in Kitchener using Text Analytics techniques. The focus was to create a word cloud, run a sentiment Analysis, and Emotional classification from the reviews found on google.

Data Extraction: I used APIFY, a data extractor tool to scrap the latest 1,000 reviews from the google reviews page for this project. I have saved all the reviews as .txt format which will be easy to use for the text mining tasks in R programming.

Word Cloud: A word cloud is a visual representation of text data, where the size of each word indicates its frequency or importance within the dataset. The bigger the word, larger the frequency.

In short, Word cloud quickly identifies the common key terms in the dataset that occurs frequently. I have created a word cloud from the Chick-fil-A reviews using R Programming.
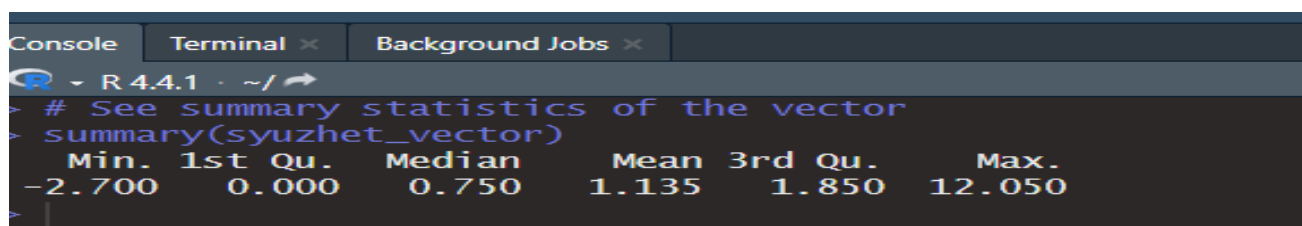

Chick-fil-A Kitchener

Positive terms:

- **Friendly and Efficient Service:** The word cloud highlights positive terms like "friendly," "helpful," and "quick".
- **Popular Menu Items and Taste**: Words such as *"delicious," "fries,"* and *"sauces"* emphasize customer enjoyment of the signature items, like waffle fries and the Chick-fil-A sauces.
- **Ambiance and Cleanliness**: Terms like *"clean," "organized,"* and *"welcoming"* highlight customer appreciation for the environment.

Negative terms:

- **Service speed**: Words such as *"time", "line", "wait",* and *"long"* indicates negative emotions towards service delivery.
- **Disappointment**: The words like *"disappointed", "never", "hype"* showcases some sort of negative emotions towards the restaurant.

Sentiment Analysis: Sentiment analysis is a technique used to determine the emotional tone behind words in text data, categorizing opinions as positive, negative, or neutral.


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   ▾ R 4.4.1 · ~/
> # See summary statistics of the vector
> summary(syuzhet_vector)
   Min. 1st Qu.  Median    Mean 3rd Qu.     Max.
 -2.700   0.000   0.750   1.135   1.850  12.050
>
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In this analysis, Chick-fil-A reviews ranged from highly negative (-2.7) to highly positive (12.05), with the mean score around 1.135, indicating overall positive and general satisfaction amongst the guests.

Emotional classification: Emotion classification identifies the range of emotions expressed in text data(reviews), highlighting customer feelings toward a service or product.
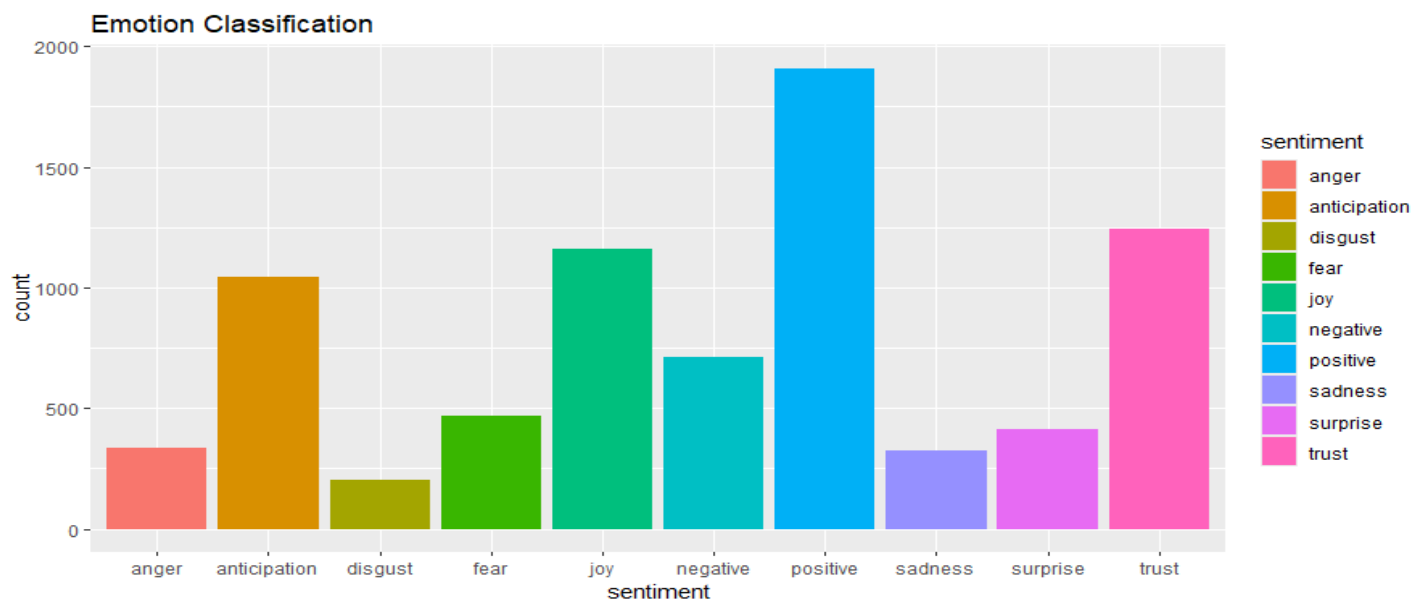
In Chick-fil-A reviews, positive emotions such as *trust (1,243), joy (1,158), Anticipation (1,045)* overweighs the negative emotions such as *anger* (333) and *disgust* (201), and *sadness(326)*

Conclusion:

Based on the analysis of 1,000 customer reviews of the Chick-fil-A restaurant in Kitchener, several key insights were identified. The word cloud revealed that customers frequently mentioned positive aspects such as friendly and efficient service, popular menu items, and a clean, welcoming ambiance. However, some negative feedback was noted regarding service speed and occasional disappointment.

The sentiment analysis indicated an overall positive sentiment with a mean score of 1.135, suggesting general satisfaction among customers. Emotional classification further supported this, showing an increased reviews expressing positive emotions like trust, joy, and anticipation, outweighing negative emotions such as anger, disgust, and sadness.

In conclusion, Chick-fil-A in Kitchener is generally well appreciated for its service and food quality, there are areas for improvement, particularly in reducing wait times to improve the overall customer experience.