BUSINESS SENTIMENT ANALYSIS

HTTPS://WWW.TACOBELL.COM/FOOD

CONTENT

ABOUT ME

I’m a student at ESCP Business School, pursuing a Master in Management specializing in Applied Data Science.

This project consists of analyzing Reviews for a Taco Bell Store located in Miami, FL. The objective is to analyze the sentiment of these comments and provide actionable insights to the company.

ABOUT THE STORE

- Located in MIAMI, FL – 966 SW 8TH ST, this establishment benefits from its central location, where it receives thousands of customers a month.

- It offers breakfast, lunch, and dinner services, on-site and delivery.

TACO BELL

IN MIAMI, FL - 966 SW 8TH ST

DRIVE THRU · OPEN · DELIVERY · BREAK FAST

OPEN TODAY UNTIL 4:00 AM

966 SW 8th St
Miami, FL 33130

(305) 854-3331

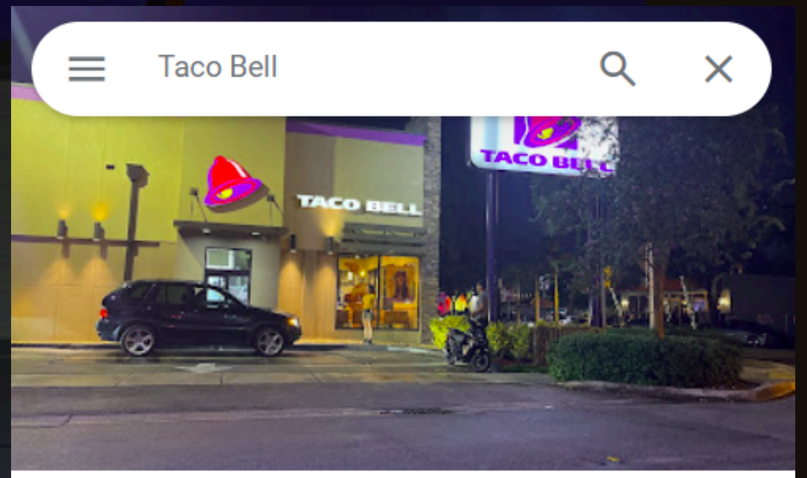
Order Online

Order Delivery

Get Directions

DRIVE-THRU HOURS

Thu	8:00 AM - 4:00 AM
Fri	8:00 AM - 5:00 AM
Sat	8:00 AM - 5:00 AM
Sun	8:00 AM - 4:00 AM
Mon	8:00 AM - 4:00 AM
Tue	8:00 AM - 4:00 AM
Wed	8:00 AM - 4:00 AM



Taco Bell

3.4 ★★★½☆ (1,278) · $

Fast food restaurant

Overview Reviews About

Directions Saved Nearby Send to phone Share

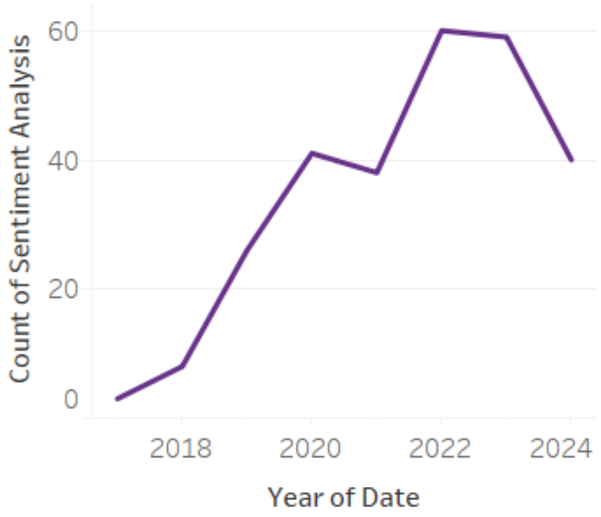
ORDER ONLINE

Fast-food chain serving Mexican-inspired fare such as tacos, quesadillas & nachos.

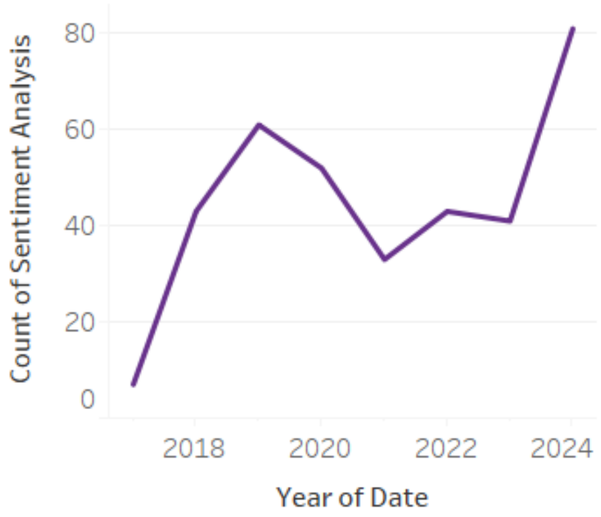
✓ Dine-in · ✓ Drive-through · ✓ Delivery

ANALYSIS AND RESULTS

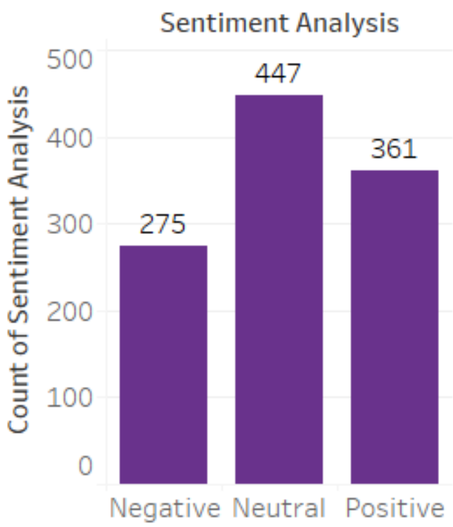
Evolution of Negative Reviews over time



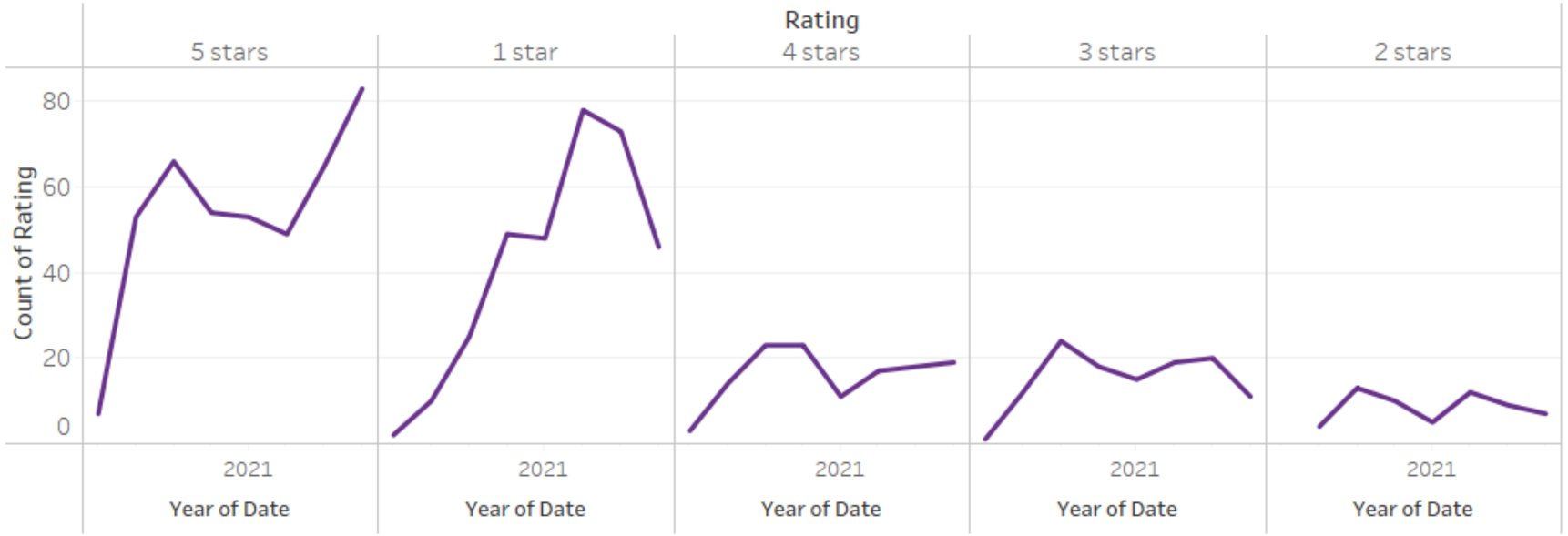
Evolution of Positive Reviews over time



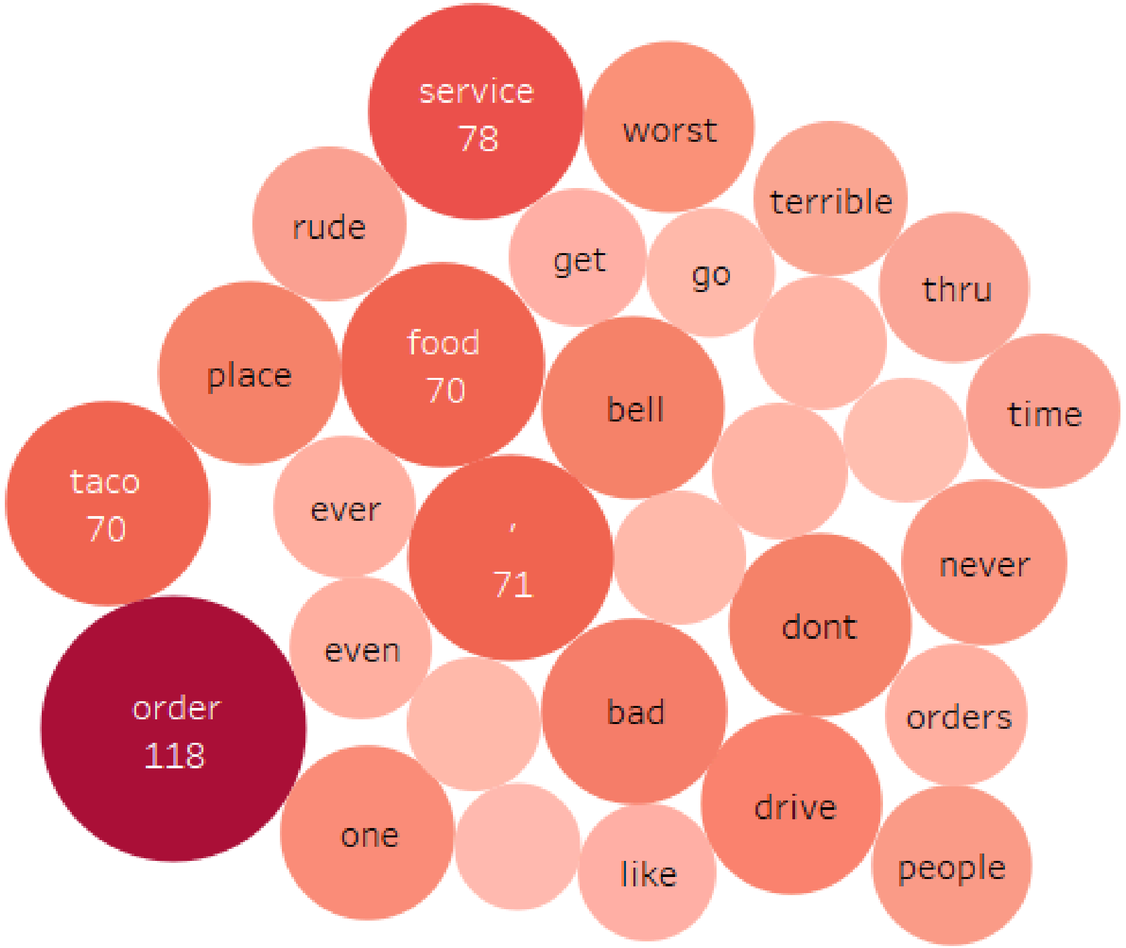
Sentiment Analysis of Reviews



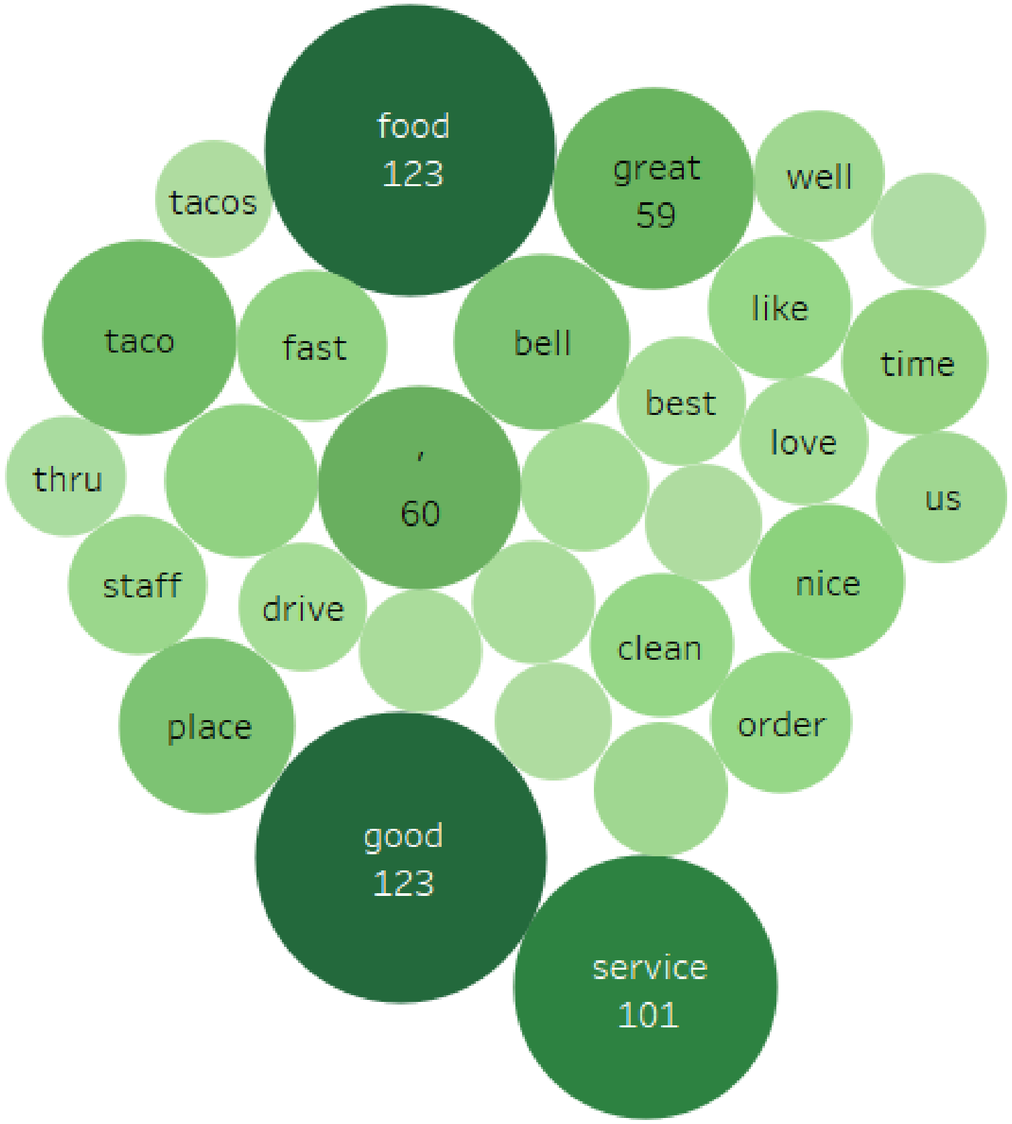
Stars rating over years



Most Present Negative Words



Most Present Positive Words



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INSIGHTS

- **Positive Reviews peaked in 2024**, which is a good sign, still **negative reviews where at their highest in 2023.**
- **5 star rating is growing over time,** while other ratings are remaining still or at the same level, of course 2024 has just started so we should not make any fast conclusions.
- Most repeated words in **Negative** reviews: **order, service, food, drive, thru, time, rude, etc.**
- Most repeated words in **Positive** reviews: **food, taco, service, clean, place, etc.**

STRATEGIES

Overall, we are doing a good job according to our customers. We should maintain this performance, which is growing as the charts show, without neglecting our weaknesses.

We need to focus on our customer service, as "Rude" was frequently mentioned in negative reviews. Additionally, there seems to be an issue with Orders. We must ensure that we do not make mistakes in processing orders.

We should review and improve our Drive-Through service. The words "Drive" and "Thru" appeared repeatedly in negative reviews but not in positive ones. We need to conduct an analysis to identify what is failing in this process that is perceived in such a way by our customers.

THANK'S FOR WATCHING

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```
sia = SentimentIntensityAnalyzer()

def classify_sentiment(review):
    scores = sia.polarity_scores(review)
    compound_score = scores['compound']
    if compound_score >= 0.05:
        return 'Positive'
    elif compound_score <= -0.05:
        return 'Negative'
    else:
        return 'Neutral'

data_df['Review'] = data_df['Review'].astype(str)
data_df['Sentiment_Analysis'] = data_df['Review'].apply(classify_sentiment)


stop_words = set(stopwords.words('english'))

def limpiar_texto(texto):
  texto = texto.lower()
  texto = ''.join([char for char in texto if char not in string.punctuation])
  tokens = word_tokenize(texto)
  tokens = [word for word in tokens if word not in stop_words]
  return tokens
```

```
positive_reviews_df = data_df[data_df['Sentiment_Analysis'] == 'Positive']
negative_reviews_df = data_df[data_df['Sentiment_Analysis'] == 'Negative']

positive_reviews_text = ' '.join(positive_reviews_df['Review'])
negative_reviews_text = ' '.join(negative_reviews_df['Review'])

positive_tokens = limpiar_texto(positive_reviews_text)
negative_tokens = limpiar_texto(negative_reviews_text)

positive_word_counts = Counter(positive_tokens)
negative_word_counts = Counter(negative_tokens)

most_common_positive = positive_word_counts.most_common(30)
most_common_negative = negative_word_counts.most_common(30)

print("Most Common Positive Words:")
for word, count in most_common_positive:
  print(f"{word}: {count}")

print("\nMost Common Negative Words:")
for word, count in most_common_negative:
  print(f"{word}: {count}")

positive_df = pd.DataFrame(most_common_positive, columns=['Word', 'Frequency'])
negative_df = pd.DataFrame(most_common_negative, columns=['Word', 'Frequency'])
```

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