# September 2025

# Online Reputation of Restaurants in DFW Area

**Market Analysis** 





# I. Executive Summary

This study analyzes Google Reviews of restaurants in DFW area to provide a comprehensive understanding of the online reputation of this market. By combining quantitative metrics, topic modeling, and sentiment analysis, the study offers actionable insights for benchmarking performance and improving customer satisfaction.

### **Market Overview:**

A generalized market analysis establishes macro-level benchmarks, identifies overarching themes, and reveals sentiment patterns across local restaurants. This contextual view helps individual restaurants understand their relative standing and recognize common customer expectations and areas of satisfaction or dissatisfaction. A strong online reputation is critical for customer acquisition and trust in the modern restaurant industry.

### **Key Analyses and Takeaways:**

- Star Ratings & Response Promptness: Descriptive analysis reveals overall customer evaluations and restaurant engagement with feedback. The histogram plots of star scores and response promptness allow restaurants to benchmark themselves against the local market.
- **Topic Modeling:** Identifies six major review themes *food, overall experiences, service, drink, price* and *cleanliness* highlighting critical areas influencing customer satisfaction.
- Machine Learning Approach of Sentiment Analysis: Evaluates visibility measure, favorability measure, and a composite measure to quantify different dimensions of online reputation based on machine learning approach of sentiment analysis.
- Aspect-Based Sentiment Analysis (ABSA): Assesses sentiment measures across each theme, providing actionable insights on specific aspects of customer experience.

# **II. Star Scores and Response Promptness**

Google Reviews, like many online platforms, uses a five-star system to show customer satisfaction—five stars mean customers are extremely happy, while one star shows dissatisfaction. While it's a simple measure, it has a big impact on how potential customers view a business. In DFW area, 95.9% of restaurants have star ratings. Among them, the average rating is 4.3, ranging from 1 to 5. The median rating is 4.18, meaning that half of the restaurants earned star ratings equal to or higher than 4.18. The Figure 1 is the histogram graph of the frequency of restaurants that received various star scores. It shows only a small proportion of restaurants in DFW area received score scores that equal to or higher than 4.9

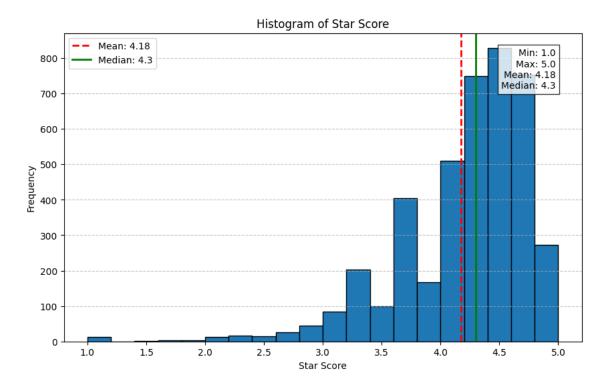


Figure 1: The Distribution of Star Scores in DFW Restaurant Market

Timely communication with customers through online platforms plays a critical role in building trust and driving satisfaction. In the DFW restaurant market, only one third (33.7%) of the reviews received a response from restaurants, while about 66.3% went unanswered. Among the reviews that were addressed, 85% were responded to within 10 days, 91% within 20 days, and 94.7% within 30 days as shown in the following Figure 2. The average response time is 7.1 days. Customers feel valued when restaurants respond to their reviews, which in turn strengthens the restaurant's reputation. The high percentage of unanswered reviews and the wide variation in response times underscore the need for more prompt engagement in the DFW restaurant market. Restaurants that respond quickly stand out in the market and strengthen customer relationships, while those with delayed or absent responses risk missing valuable opportunities to connect with customers and build a strong reputation. To maximize customer satisfaction and competitive advantage, restaurants should aim to respond to reviews within 10 days.

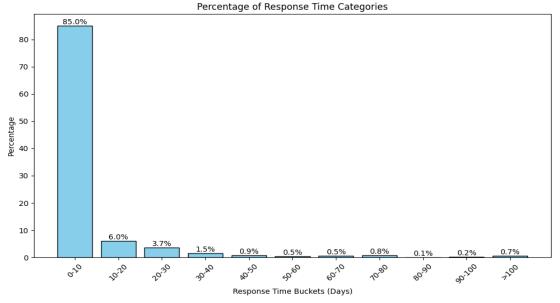


Figure 2: Response Promptness of Online Reviews in DFW Restaurant Market

### III. Top Three Businesses by Google Review Reputation

The visibility measure is calculated by normalizing the number of online reviews. It reflects both the extent to which a restaurant has been reviewed by its customers and the degree to which these reviews are accessed by potential customers. The visibility measure ranges from 0 to 1. We used a media endorsement index to calculate favorability measure. This index reflects the extent to which a restaurant is endorsed by its online reviews. The favorability measure ranges from 0 to 1. We created a single measure that combines both visibility and favorability. Visibility shows how much a restaurant is talked about in online reviews, while favorability shows how positively people feel about it. On their own, these two measures don't give the full picture—a restaurant might be very visible but not very well liked, or the other way around. By bringing them together, the composite measure provides a clearer view of a restaurant's overall online reputation.

Table 1 present the top three restaurants with highest online reputations in 16 cities that have over 80,000 populations in DFW area. This ranking is based on the values of the composite measure of the restaurants in each city.

Table 1
Top Three Restaurants Ranked by Online Reputation (16 Major Cities in DFW Area)

Name	Visibility	Favorability	Composite				
Dallas							
Shivas Bar and Grill	1.00	0.98	0.98				
Rj Mexican Cuisine	0.68	0.95	0.64				
Pollo Regio	0.53	0.95	0.50				
Ga	Garland						
Texas Roadhouse	1.00	0.82	0.82				
Babe's Chicken Dinner House	0.80	0.86	0.68				
Cheddar's Scratch Kitchen	0.60	0.71	0.43				
Flower	er Mound						
Mi Cocina	1.00	0.91	0.91				
Texas Roadhouse	0.96	0.73	0.70				
Verf's Grill & Tavern	0.61	0.82	0.50				
Lev	wisville						
Razzoo's Cajun Cafe	1.00	0.81	0.81				
Pollo Regio	0.75	0.93	0.70				
Cracker Barrel Old Country Store	0.98	0.70	0.69				
D	enton						
Hawaiian Bros Island Grill	1.00	0.93	0.93				
Oldwest Cafe Of Denton	0.55	0.73	0.41				
Mi Cocina	0.44	0.87	0.38				
Mesquite							
Texas Roadhouse	1.00	0.82	0.82				
Griff's Hamburgers	0.61	0.82	0.50				
Cheddar's Scratch Kitchen	0.64	0.70	0.44				
I	rving						
Pollo Regio	1.00	0.93	0.93				
Whiskey Cake Las Colinas	0.83	0.83	0.69				
UNO CHINA SUPER BUFFET	0.83	0.77	0.6				
McKinney							
Hutchins BBQ	1.00	0.92	0.92				
Pollo Regio	0.32	0.83	0.26				
Mi Cocina	0.20	0.96	0.20				
Allen							
Hawaiian Bros Island Grill	1.00	1.00	1.00				
Torchy's Tacos	0.57	0.85	0.49				
Mi Cocina	0.48	0.95	0.46				

Grand Prairie						
Texas Roadhouse	1.00	0.78	0.78			
Golden Corral Buffet & Grill	0.56	0.67	0.37			
Applebee's Grill + Bar	0.35	0.63	0.22			
Carrollton						
Babe's Chicken Dinner House	1.00	0.89	0.89			
Gen Korean BBQ House	0.68	0.67	0.45			
Al Markaz Groceries and Restaurant	0.71	0.61	0.44			
Frisco						
Hutchins BBQ	1.00	0.94	0.94			
Hawaiian Bros Island Grill	0.94	1.00	0.94			
A2B Indian Vegetarian Restaurant- AAB	0.99	0.89	0.87			
Arlington						
Cracker Barrel Old Country Store	1.00	0.72	0.72			
Chick-fil-A	0.43	0.84	0.36			
Cheddar's Scratch Kitchen	0.57	0.60	0.34			
Plano						
In-N-Out Burger	1.00	0.73	0.73			
Kura Revolving Sushi Bar	0.96	0.73	0.70			
Twin Peaks	0.92	0.73	0.67			
Fort Worth						
Sundance Square	1.00	0.90	0.90			
Joe T. Garcia's	0.86	0.80	0.68			
Ol' South Pancake House	0.68	0.82	0.56			
Richardson						
Ali Baba Mediterranean	1.00	0.83	0.83			
Dimassi's Mediterranean Buffet	0.91	0.80	0.73			
Cafe Brazil - Richardson	0.80	0.70	0.56			

# **III. Dominant Themes in Google Reviews**

To identify key themes in online reviews of restaurants, we used a machine learning approach to group customer comments into common topics that represent the dominant themes/aspects of customer experience. This analysis highlights the issues customers discuss most, along with representative keywords that reflect their concerns and praises. The results provide a clear overview of customer feedback and offer insights to guide restaurant management and improvement strategies. Table 2 presents the findings:

Table 2 Dominant Themes in Google Reviews

Theme Labels	Top Keywords	Representative Review Snippets
Food	Steak, rice, chicken, shrimp, fried, taco, burrito, spice, cheese, wing, crispy, sushi, ramen, roll, lemon, pepper, seasoning	"We had chicken fried chicken, fried steak, and 2 kids chicken strip basket."  "I had the coconut-based chicken soup for starters. It was perfect. I then had Rad Na with shrimp, which was divine."  "Perfect seasoning all the meats were
Overall experience	Thumbsup, great, love, great, recommendation, experience	"I frequent go to this place and always everyone is so friendly!"  "Our first experience at this place was wonderful. While the menu seems to be coming to life, the offerings were unique in their own regards".  "I rarely leave reviews, but this new restaurant absolutely deserves the major."
Service	Customer, service, friendly, helpful, professional, excellent, thank	"The attention to detail is incredible.  Servers are catering to you and your needs and how you want the dinner to go."  "Great customer service my phone has almost died, and they gave me a charger."  "Staff is super nice and focused on making sure they give great customer service."
Drink	Beer, drink, wine, selection	"They have this mango drink with chaymo stuff ssoooo good."  "The beers were pretty good."  "Laid back, relaxing, and nice selection of beers and wine."
Price	Price, pricey, expensive, cheap	"Delicious food at cheap prices!"  "Nice touch, menu prices include sales tax."  "I love Sonic, but it's getting expensive for the food."  "Not the cheapest in town but the quality and service is worth the price."
Cleanliness	Clean, dirty, paper, restroom, bathroom	"And the restrooms were clean."  "It came in a dirty plate."  "The bathroom wasn't the cleanest either and they had their dirty work gloves on top of the nonworking paper towel dispenser."

### V. Measures of Themes Online Reputation

We used **Aspect-Based Sentiment Analysis (ABSA)**, a sophisticated method combining topic modeling and sentiment analysis, to gain deeper insights into customer reviews. ABSA allows us to break down feedback into specific service aspects and understand the sentiment associated with each. Since negative reviews can impact a restaurant's online reputation, we first examined the percentage of negative reviews for each major theme. Figure 3 shows these results. Notably, **food**, **service**, **and cleanliness** are the aspects that generate the most dissatisfaction, highlighting key areas where restaurants can focus on improving the customer experience and boosting satisfaction.

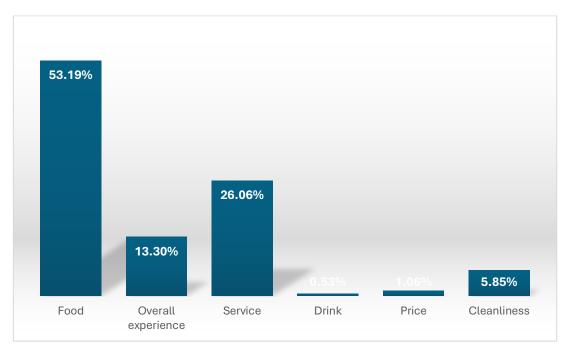


Figure 3: Percentages of Negative Reviews by Major Themes

We also calculated three online reputation measures for each theme/aspect of online reviews. These three online reputation measures provide detailed insights into what customers most often praise or criticize within this restaurant market. Table 3 presents the three measures of online reputation based on the results of ABSA analysis.

The **food theme** ranks highest across all measures, reflecting strong overall satisfaction with the restaurants. While it contains the largest share of negative reviews, the positives far outweigh the negatives. The **overall experience theme** ranks second highest and holds the strongest favorability index. In contrast, **cleanliness** scores lowest on both the composite measure and the favorability index, marking it as a key area for improvement. The **price theme** shows the lowest visibility but relatively high favorability, suggesting that although customers comment less on price, they are generally satisfied with it. The **service theme** ranks second in visibility but only

mid-level in favorability. Finally, the **drink theme** achieves the highest favorability score despite being among the least discussed, presenting an opportunity for restaurants to better showcase customer satisfaction in this area.

Table 3
Three Online Reputation Measures of the Major Themes of Google Reviews

Theme/aspect	Visibility	Favorability	Composite
Labels	Measure	Measure	Measure
Food	1.00	0.71	0.71
Overall experience	0.24	0.94	0.23
Service	0.30	0.53	0.16
Drink	0.05	0.94	0.04
Price	0.03	0.81	0.02
Cleanliness	0.04	0.22	0.01

### VI. Conclusion

This study analyzes star ratings and response promptness of Google Reviews for restaurants in DFW area. Most restaurants (95.9%) hold star ratings with an average score of 4.3, and half of the restaurants earned star ratings equal to or over 4.18. Only about one third of the Google reviews were responded by the restaurants, indicting many restaurants have missed opportunities to build stronger customer relationships.

To gain deeper insights, topic modeling is applied to identify six major themes in the online reviews: *food, overall experiences, service, drink, price* and *cleanliness*. These themes capture the aspects of care that customers most frequently discuss and reveal common expectations, as well as areas of satisfaction and dissatisfaction.

Using the machine learning approach of sentiment analysis, this study then evaluates three measures of online reviews—visibility measure, favorability measure, and composite measure. This report presents top three restaurants with the strongest online reputations in each city of DFW area, ranked by a composite measure that is the combination of visibility measure and favorability measure.

Building on this, the study employs the Aspect-Based Sentiment Analysis (ABSA) approach to assess the three measures within each of the six major themes. This analysis reveals how restaurants perform across specific aspects of the customer experience. Given that negative reviews significantly impact a restaurant's online reputation, we examined their distribution across the major themes and found that **service** and **cleanliness** generate the highest levels of dissatisfaction—highlighting critical areas for improvement. In contrast, customers express high satisfaction with **drink** and **price**. The prominence of negative feedback in the **service** and **cleanliness** aspect suggests that restaurants in the DFW area should prioritize enhancing these areas to boost overall guest satisfaction.