



Evaluation of Google Reviews of Restaurants in Türkiye Listed on the Michelin Guide Bib Gourmand List: Text Mining Approach

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Abstract

This study aims to make a general evaluation of the services and cuisine quality of the restaurants listed in the Michelin Guide 2025 Bib Gourmand Turkey Bulletin based on Google reviews. During the data collection phase, a total of 3,649 reviews of 25 restaurants listed on Google Maps were collected using the web scraping technique. The collected textual reviews were analyzed using text mining techniques such as sentiment analysis and topic extraction. The sentiment analysis findings show that the opinions about the restaurants listed in the Michelin Guide 2025 Bulletin Bib Gourmand Türkiye were mostly positive (55.31%). The topic extraction results show that customers frequently refer to food and service quality, staff, and restaurant ambiance. In addition, it was determined that waiting time, cost, and portion size constitute significant negative concerns for customers. This research will improve the private sector and academic literature by explaining how consumers evaluate restaurants rated by an international restaurant rating agency.

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INTRODUCTION

The significance of online consumer review platforms, which allow individuals to express their evaluations and perspectives on accommodations, food and beverage, and other service-oriented enterprises, is progressively rising across various global locations. Online review systems have emerged as a crucial information source, significantly influencing enterprises and substantially affecting customers' decision-making processes. These tools enable potential buyers to effortlessly compare their selected firms with others. These assessments, accessible to potential consumers at no cost and requiring minimal time investment, significantly influence the decision-making process (Kim, Li, & Brymer, 2016; Tunçalp, 2018; Kim & Velthuis, 2021). Smith and Anderson report that 82% of consumers in the United States consult online reviews prior to acquiring a new product. While reviews are prevalent across several age demographics, individuals under 50 have particularly integrated online review evaluation into their purchasing decisions. These reviews offer firms the chance to foster robust engagement with consumers and attain effective outcomes if they perform a successful assessment (Ünal, 2023).

While the assessment and rating of restaurants through online platforms is a contemporary practice, *L'Almanach des gourmands*, published in 19th-century France, is regarded as the inaugural guide for restaurant ratings (Greenberg et al., 2024). The 8-volume oeuvre authored by Grimod de La Reynière and released from 1803 to 1812 encompasses critiques of restaurants, patisseries, and various food and beverage facilities in Paris, along with details regarding notable French meals. *L'Almanach des Gourmands* might be seen as a gourmet guide or a restaurant evaluation book in contemporary terms (Abramson, 2003). The Michelin Guide, published since the early 20th century and currently operating in 47 countries, is regarded by many as the most esteemed restaurant review organisation (Michelin Guide, 2025). The bulletin categorises restaurants according to assessments by culinary experts, influencing consumer choices. Moreover, obtaining a star can enhance a restaurant's profitability by as much as 50% (Miklós, 2019; Daries, Moreno-Gené, & Cristobal-Fransi, 2021). The Michelin Guide has recently implemented many symbols and categories for classification, in addition to giving stars. The Michelin Guide Bib Gourmand identifies restaurants that provide exceptional dining experiences at reasonable prices and occupies a unique status in the culinary realm. The growing culinary tourism and interest in local food in Türkiye need an examination of consumer perceptions regarding restaurants listed in the Michelin guide. An assessment of Michelin Bib Gourmand restaurants will be performed utilising data sourced from Google Reviews.

In this context, this study aims to evaluate consumer perceptions of Bib Gourmand restaurants listed in the Michelin Guide Türkiye 2025 by analysing 3,649 English Google Reviews through text mining techniques specifically sentiment analysis and topic modelling.

Literature Review

The Bib Gourmand category in the Michelin Guide significantly influences consumer views and experiences in the culinary realm. Bib Gourmand restaurants are recognised for providing high-quality cuisine at affordable costs, attracting a wider clientele than more elite Michelin-starred venues. This distinctiveness not only elevates the reputation of the restaurants but also influences consumer trust and dining preferences. Studies indicate that trust in the Michelin Guide is predominantly established through favourable prior experiences, hence enhancing its significance as a dependable source of culinary suggestions (Kiatkawsin and Sutherland, 2020). The Michelin Guide is recognised as a decisive authority in the global restaurant sector, significantly influencing culinary trends and

consumer behaviour (Huang et al., 2024).

The Bib Gourmand designation has successfully enhanced local culinary landscapes, especially in areas such as Ayutthaya, Thailand, where 26 restaurants exemplifying the city's distinctive food culture are featured (Poyoi et al., 2024). Bib Gourmand enhances the visibility of local enterprises and elevates the destination's allure as a culinary tourism centre. Bib Gourmand restaurants featured in the Michelin Guide do not adhere to the luxury dining paradigm. Nonetheless, findings indicate a growing trend towards acknowledging diverse dining experiences, particularly those that have excellent quality (Huang et al., 2024).

The influence of the Michelin Guide transcends mere acknowledgement. The guide acts as a catalyst in consumer behaviour and decision-making processes. Studies indicate that elevated ratings from the Michelin Guide substantially enhance the probability of consumers selecting a restaurant and that the Guide considerably affects culinary tastes (Ha et al., 2016). The Guide's authority is further reinforced by its capacity to adapt to various culinary cultures, exemplified by the acknowledgement of street food in Singapore (Henderson, 2017).

As highlighted in recent studies (e.g., Ha et al., 2016; Poyoi et al., 2024), examining user-generated content through techniques such as sentiment analysis and topic modelling serves as a crucial methodological approach to understanding client experiences and expectations.

Olaru (2023) examined the influence of Michelin-starred restaurants on culinary tourism and consumer interaction on social media, demonstrating that patrons often juxtapose their experiences across various geographies, with a particular focus on flavour, presentation, and service quality. Baykal and Yazıcı Ayyıldız (2024) conducted an analysis of customer complaints in Michelin-starred restaurants in Istanbul and London, focussing on service quality, ambiance, and staff behaviour as primary factors influencing customer satisfaction. The results align with Çavuş and Nazik (2022), who assert that the performance of Michelin-starred restaurants is mostly influenced by the equilibrium between innovation, sustainability, and the maintenance of traditional culinary principles. Bertan (2016) discovered that consumer assessments of Michelin-starred restaurants are predominantly influenced by perceived value, ambiance, and service quality, as evidenced by an analysis of internet reviews. Demir (2025) discovered that, despite their growing significance, sustainability factors are typically overlooked in consumer evaluations of Michelin-starred restaurants. Apak and Nazikgöl (2025) offer a complementary viewpoint by examining the depiction of Turkish cuisine in Michelin-starred restaurants, highlighting the inclusion of traditional dishes in both Michelin and Bib Gourmand venues.

Rita et al. (2023) conducted an analysis of 8,871 TripAdvisor reviews pertaining to 87 restaurants in Europe, focussing on the online evaluations of Michelin Star-awarded establishments. Customer reviews were notably more critical regarding food and service quality, although the perception of costs was elevated (Rita et al., 2023).

Şahin et al. (2021) conducted an analysis of TripAdvisor reviews to investigate consumer experiences at Michelin-starred restaurants. This research, which involved interviews with chefs and managers, indicated that consumers are largely motivated by curiosity and a desire for exceptional food quality, hospitality, service, and ambiance. The results demonstrate that although food quality is paramount, variables such as service and ambiance also significantly influence consumer satisfaction (Şahin et al., 2021).

Gan et al. (2017) conducted a study analysing internet reviews of Michelin-starred restaurants, employing topic

modelling and sentiment analysis to discern the elements influencing consumer happiness. This study revealed that meal quality, service, ambiance, and price-performance ratio are essential in shaping client experiences. The study highlighted that these elements effectively fulfil customer expectations and improve satisfaction (Gan et al., 2017).

Pacheco (2018) examined TripAdvisor reviews of Michelin-starred restaurants, exploring the alterations in consumer feedback following the acquisition of a Michelin Star. The study proved the influence of the Michelin designation on consumer opinion by analysing essential factors including food, price, service, and ambiance. The results indicate that the Michelin award not only elevates the restaurant's renown but also profoundly modifies consumer expectations (Pacheco, 2018).

Method

This study examines Google reviews of the restaurants featured in the Michelin Guide Bib Gourmand Türkiye 2025. The 2025 Michelin Guide features 27 restaurants in the Bib Gourmand category. The distribution of restaurants per region is as follows: Istanbul (14), Izmir Central (6), Bodrum (4), Urla (3). The evaluation of the comments of the determined restaurants on Google Maps was carried out using text mining techniques consisting of four stages. In the first stage, text pre-processing was performed. Text pre-processing is a data reduction method used to make the collected textual comments meaningful. In the second stage, the sentiment analysis technique was used to determine the percentage of positive and negative expressions in the collected comments. In the third stage, the prominent topics in the collected comments were determined using topic modeling. In the last stage, the analysis results were evaluated and reported.

The research population comprises text-based reviews of restaurants in Türkiye featured on the Michelin Guide website. The reviews indicate that most remarks regarding these eateries are located on the Google Maps site. The Michelin Guide features 27 restaurants in the Bib Gourmand category. Nonetheless, one of these eateries lacks enough ratings, while the feedback provided pertains to the lodging aspect of the same establishment. Therefore, the research sample consists of English customer reviews of 26 restaurants categorized as Bib Gourmand in the Michelin Guide on Google Maps.

Data Collection

The text-based dataset utilised in the research was gathered from the Google Maps website through web scraping methods between February 2, 2025, and February 10, 2025. The assembled text-based dataset comprises 3,649 English comments authored by customers from 2022 to 2024 for 26 eateries, along by the corresponding rating values assigned to each establishment. The Excel file generated for this dataset contains the locations of the restaurants and the sorts of food they offer for analytical purposes. The aggregated data has been documented in an Excel file and subsequently imported into the Wordstat 2025 software for text mining analysis. The statistical analysis of the 3,649 gathered comments is detailed in the findings section.

Text Mining Analysis Duration: Text mining is the process of extracting latent concepts and their interrelations from pre-existing texts authored by others through various methodologies (Gupta & Lehal, 2009; Gaikwad, Chaugule & Patil, 2014). The text mining process commences with the aggregation of unstructured data from many sources. The text mining program analyses a given document, verifies its format and character sets, and undergoes a preprocessing step to transform it into a structured dataset. Subsequently, the document advances to the text analysis

phase. Text analysis is a semantic evaluation aimed at collecting valuable information from the text. This procedure may employ numerous text analysis techniques or their combinations (Gupta & Lehal, 2009; Dang & Ahmad, 2014). The study implemented preprocessing methods to organise the collected unstructured data, aiming to enhance the efficacy of topic modelling, a text mining methodology. In the preprocessing phase, the subsequent operations were implemented.

1. Extraction: At this phase, the file content has been segmented into distinct words, concepts, or phrases (Vijayarani, Ilamathi & Nithya, 2015).

2. Stop Word Removal: Commonly utilised words in the text that lack intrinsic significance (such as "and," "the," "is") are eliminated to decrease data volume and enhance system efficiency (Kannan, Gurusamy et al., 2014).

3. Stemming and Lemmatisation: These methodologies condense words to their fundamental or root forms. The objective of stemming is to consolidate several forms of a word into a singular root (Kannan, Gurusamy et al. 2014; Landge & Rajeswari, 2016; Petrović & Stanković, 2019).

4. Normalisation: This procedure standardises the text and may involve actions such as converting all letters to lowercase, eliminating punctuation marks, and rectifying spelling issues (Petrović & Stanković, 2019; Dařena & Žiřka, 2015).

Consequently, text preparation procedures enhance the analyzability and significance of data in the text mining process.

Sentiment analysis: Sentiment analysis, a branch of text mining, concentrates on identifying the emotional tone or opinion conveyed in a text. The objective is to categorise the material as positive, negative, or neutral, and occasionally to identify more specific emotions such as embarrassment, happiness, anger, sadness, or contempt. Sentiment analysis categorises and evaluates the emotional tone of a text by the application of text mining results (Younis, 2015; Zucco, Calabrese, et al., 2020). Sentiment analysis typically employs two methodologies: natural language processing and machine learning techniques. Morphological and syntactic analyses tailored to individual languages (e.g., Turkish, English) are employed in natural language processing to derive semantic outcomes, which subsequently enable sentiment analysis. The language processing method demonstrates a comparatively elevated success rate (Seker, 2016).

Topic Extraction: The technique of topic extraction has been employed to identify the issues that customers emphasise in their reviews of restaurants within the Bib Gourmand category of the Michelin Guide. Topic extraction is a crucial procedure in text mining that facilitates the discovery of primary themes or subjects within a corpus of documents. This technique is extensively employed for structuring and analysing the exponentially growing unstructured textual data across several domains, including academia, business, and social media. The Latent Dirichlet Allocation (LDA) model is one of the most commonly employed techniques for topic extraction. LDA is a statistical model that uncovers latent themes by analysing the co-occurrence frequency of terms in documents (Kim et al., 2015; Ogunwale, 2023; Rugeles et al., 2023). This model is an effective instrument for analysing extensive text data.

Findings

Descriptive Statistics

Below are the descriptive statistics pertaining to comments retrieved from Google Maps for businesses via web scraping.

Table1. Google Maps restaurant review text statistics

Collection Statistics
Total number of cases: 3.649
Total number of non-empty cases: 3.649
Total number of paragraphs: 5.285
Total number of sentences: 16.501
Total number of words (token): 203.083
Total number of word forms (type): 7.156
Type/Token Ratio: 0,035
Total words excluded: 76.181
Percentage of words excluded: 37,5%
Words per sentence: 12,3
Words per paragraph: 38,4
Words per non-empty case: 56

Table 1 reveals that 3,649 reviews from 26 restaurants in Türkiye, as documented in the Michelin Guide 2025 bulletin, have been analysed. The comments comprise 5,285 paragraphs, 16,501 sentences, and 203,083 words. Visitors have employed 7,156 distinct words to articulate their opinions regarding the business.

Textual comments for analysis have been organised into cross tables based on location, cuisine type, and rating, with the resulting statistical data displayed in Table 2.

Table 2. Quantity of reviews by restaurant location

Restourant Location	Frequency	Total Percent	Valid Percent
Urla	335	9,2%	9,2%
Bodrum	441	12,1%	12,1%
Izmir	1045	28,6%	28,6%
Istanbul	1828	50,1%	50,1%
Total	3649	100%	100%

Table 2 reveals that the highest number of comments (1828) was made regarding enterprises located in Istanbul. Given that the majority of businesses in the bulletin are situated in Istanbul, this circumstance may be deemed typical. Izmir follows Istanbul with 1,045 reviews, Bodrum with 441 reviews, and Urla with 335 reviews.

Table 3 delineates the sorts of cuisine in which the enterprises featured in the guide operate.

Table 3. Allocation of reviews by category of restaurant

Value	Frequency	Total Percent	Valid Percent
Mediterranean Cuisine	33	0,9%	0,9%
Grills	65	1,8%	1,8%
Modern Japanese Cuisine	135	3,7%	3,7%
International Cuisine	194	5,3%	5,3%
Organic Cuisine	210	5,8%	5,8%
Modern Cuisine	267	7,3%	7,3%
Italian Cuisine	315	8,6%	8,6%
Traditional Cuisine	490	13,4%	13,4%
Turkish Cuisine	1940	53,2%	53,2%
TOTAL	3649	100%	100%

Upon examining Table 3, it is noted that the biggest volume of comments (1940) pertains to enterprises in the Turkish cuisine sector. Traditional cuisine ranks second to Turkish cuisine with 490 comments. The fewest comments were recorded for the institution specialising in Mediterranean food, with 33.

Table 4. Distribution of comments by cuisine type and location

	Bodrum	Istanbul	Izmir	Urla	TOTAL
Mediterranean Cuisine		33			33
Traditional Cuisine	155	144	191		490
Italian Cuisine	166	149			315
Grills	65				65
Modern Cuisine		267			267
Modern Japon Cuisine		135			135
Organik Cuisine				210	210
Turkish Cuisine	55	1100	660	125	1940
International Cuisine			194		194
TOTAL	441	1828	1045	335	3649

Upon examination of Table 4, it is evident that the highest number of comments, totalling 1,100, pertains to businesses offering Turkish Cuisine services in Istanbul, whereas the lowest number of comments, amounting to 33, corresponds to businesses providing Mediterranean Cuisine services in the same city. The remaining comments exhibit a balanced distribution.

Results of Sentiment Analysis

Table 5 presents the outcomes of the sentiment analysis performed to ascertain the positivity or negativity of customer remarks on restaurants in the Bib Gourmand category of the Michelin Stars 2025 bulletin.

Table 5. Sentiment analysis results

	Frequency	% Shown	% Processed	% Total	No. Cases	% Cases	Tf • Idf
Positive	8109	55,31%	6,39%	3,99%	2969	81,36%	726,3
Negative	6552	44,69%	5,16%	3,23%	2146	58,81%	1510,6

The sentiment study revealed that customers utilised 8,109 positive terms in their comments about eateries, with 55.31% of customers providing favourable evaluations. Furthermore, customers have employed 6,552 negative terms, with 44.69% of them assessing the establishments unfavourably. Figure 1 displays the graph derived from the sentiment analysis.

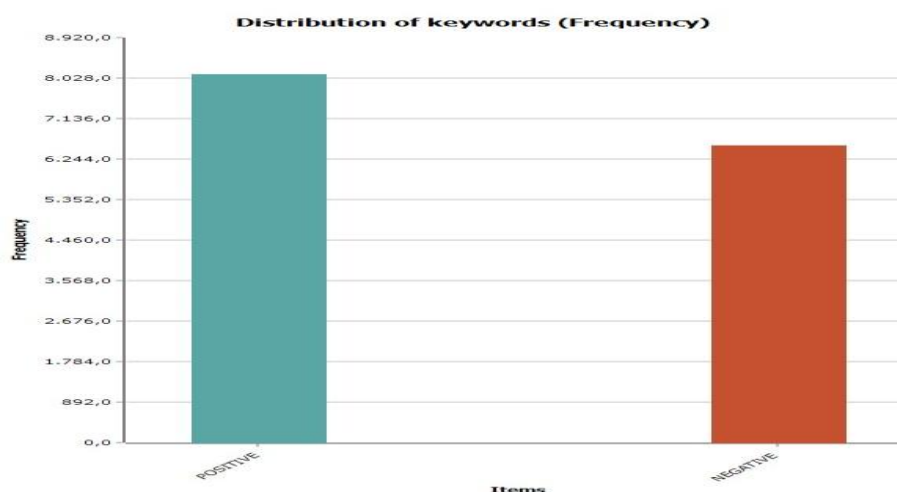


Figure 1. Sentiment Analysis

Findings on Topic Extraction

The study involved topic extraction to elucidate the theme structure of a dataset of 3,649 comments, so facilitating a clearer comprehension of the remarks. The outcomes of the topic extraction analysis, along with the subjects automatically clustered and designated via WordStat, have been disclosed and illustrated in Table 6.

Table 6. Topic extraction results

	Frequency	No. Cases	% Cases	Tf • Idf
Atmosphere Be Very Nice	1411	2402	65,83%	256,2
Price Performance & Compare	1253	1248	34,20%	583,8
Service Staff & Friendly	1228	1733	47,49%	397,1
Taste Of The Food	1150	2138	58,59%	267,0
Make A Reservation & Day In Advance	657	750	20,55%	451,2
Pay TL	634	828	22,69%	408,5
Stuff Meatball & Kebab	576	806	22,09%	378,0
Half An Hour & Wait In Line	502	727	19,92%	351,8
Wonderful Place & View	495	1061	29,08%	265,5
Wine Menu & Bottle	461	642	17,59%	348,0
Hot Appetizer & Main	442	750	20,55%	304,0
Michelin Star	404	478	13,10%	356,4
Sit At The Table	393	597	16,36%	308,9
Half Portion & Small	361	395	10,82%	348,1
Fine Dine	359	762	20,88%	244,2
Olive Oil Dish	339	459	12,58%	304,9
Tomato Salad & Sour Cherry	298	439	12,03%	274,3
Ice Cream	282	412	11,29%	267,4
Thin Dough	271	422	11,56%	254,2
Lamb Shoulder	255	363	9,95%	255,7
Zucchini Flower	171	322	8,82%	180,4
Valet Service & Park	167	179	4,91%	219,2
Grill Tongue & Veal	165	237	6,49%	196,1
Smile Face	157	259	7,10%	180,4
Vine Leaf	147	209	5,73%	182,0
Bosnian Manti	142	136	3,73%	203,2
Chef Somer & Kadayıf Shrimp	130	190	5,21%	166,3
Sea Bass	105	135	3,70%	149,8

The findings of the topic extraction study indicate that customer feedback is focused on particular themes, which offer significant insights into the dining experience. Five predominant themes with the highest frequency have been identified in the investigation. "Atmosphere Being Liked" (Atmosphere Be Very Nice) is notable for receiving 1411 comments, with 65.83% of patrons conveying a favourable assessment of the restaurant's ambiance. In second position, "Price Performance & Compare" has received 1253 reviews, with 34.20% of customers providing a favourable assessment of this criterion. In third position, "Service Staff & Friendly" distinguishes itself with 1,228 evaluations, with 47.49% of consumers commending the staff's authenticity and service excellence. "Taste Of The Food" occupies fourth place with 1,150 reviews, and 58.59% of consumers have expressed satisfaction with the taste of the dish. In fifth position, "Reservation and Advance Planning" has 657 reviews, with 20.55% of consumers highlighting this concern.

Conversely, Sea Bass emerges as the least discussed subject, garnering only 105 comments, with a mere 3.70% of consumers addressing this topic. "Boşnak Mantısı" (Bosnian Mantije) has been recognised as a low-frequency

subject, accumulating 142 comments and a rating of 3.73%. Likewise, "Chef Somer & Kadayıf Shrimp" has been noted as one of the least discussed subjects, garnering 130 comments and a 5.21% engagement rate. The data suggest that customers primarily concentrate on factors such as ambiance, value, and staff conduct during their restaurant experience, whereas particular foods or service nuances garner less focus.

Furthermore, an analysis of the reviews for restaurants in the Bib Gourmand category of the Michelin 2025 Guide reveals that some dishes are consistently emphasised. Notably, "İçli Köfte ve Kebab" (Stuffed Meatball & Kebab) is one of the most frequently referenced dishes, receiving 576 reviews. Furthermore, dishes including "Tomato Salad & Sour Cherry", "Lamb Shoulder", "Zucchini Flower", "Stuffed Vine Leaves" (Vine Leaf), "Bosnian Mantije", "Kadayıf Shrimp" and "Sea Bass" have garnered notable mention in the reviews. The results suggest that customers prioritise both general attributes and particular flavours in their restaurant choices, although certain specific items are less emphasised.

The topic extraction results indicate that the subjects pertaining to the venue and setting include a pleasant ambiance, an exquisite location and view, Michelin star recognition, and great food. Topics pertaining to service and operations encompass service personnel and amicability, advance reservations, valet services, seating arrangements, and maintaining a pleasant demeanour. Topics concerning food quality and presentation encompass flavour, hot appetisers and main courses, thin pastry, grilled tongue and veal, vine leaves, Bosnian mantı, Chef Somer and kadayıf shrimp, sea bass, zucchini flowers, lamb shoulder, olive oil dishes, tomato salad with sour cherries, ice cream, and half portions or small servings. Subjects concerning cost and efficacy are categorised as price performance & comparison, whilst subjects pertaining to waiting duration and booking are classified as make a reservation & day in advance and half an hour & queueing.

Upon evaluating the topics identified in the analysis as either positive or negative, the positive topics include: pleasant atmosphere, amiable service staff, delectable food, exquisite location and view, extensive wine selection, hot appetisers and main courses, Michelin star recognition, gourmet olive oil dish, tomato salad with sour cherry, ice cream, thin dough, lamb shoulder, zucchini flowers, valet service and parking, grilled tongue and veal, smiling faces, vine leaves, Bosnian mantı, Che The identified unfavourable themes were waiting in queue for half an hour, making a reservation a day in advance, paying TL, sitting at the table and receiving half portions or small servings.

The salient issues derived from customer reviews of the restaurants featured in the Michelin Guide have been examined based on the locations of the respective establishments, with the results detailed in Table 7.

Table 7. Predominant Topics by Business Locations

Bodrum	Istanbul	Izmir	Urla
Price_Be_Reasonable	Stuff_Meatball	Olive_Oil	Taste_Menu
Hot_Appetizer	Service_Fee	Vine_Leaf	Olive_Oil
Nice_Place	Make_A_Reservation	Food_Be_Delicious	Lamb_Shoulder
	Long_Time	Beautiful_Place	Smile_Face
	Lamb_Shoulder	Pay_Tl	
	Taste_Menu	Food_Be_Very_Delicious	
	Michelin_Star	Delicious_Food	
		High_Quality	

Upon reviewing Table 7, terms such as "price_be_reasonable" and "hot_appetizer" prominently emerge in the feedback from restaurants situated in Bodrum. This suggests that consumers in Bodrum exhibit price sensitivity and that traditional Turkish hot appetisers significantly influence their preferences. The term "nice_place" signifies that patrons are content with the venue's ambiance.

In the evaluations of establishments in Istanbul, particular meals such as "stuffed meatballs" and "lamb shoulder" are prominent. Moreover, expressions such as "long_time" and "make_a_reservation" highlight the bustling nature of enterprises in Istanbul and the associated wait periods for patrons. A prominent subject in company reviews in Istanbul is the "service_fee." The imposition of an additional service fee by businesses in Istanbul, beyond the meal cost, has elicited unfavourable feedback in the comments.

The assessments of businesses in Izmir frequently feature terms such as "olive oil" and "vine leaf," indicating the region's affinity for Aegean cuisine. Furthermore, phrases such as "food_be_delicious" and "delicious_food" signify client contentment regarding the quality of the meals.

In the reviews of companies in Urla, terms such as "tasting menu" and "the food is very delicious" are prominent. This indicates customer satisfaction with the cuisine at restaurants in Urla. Furthermore, phrases such as "smile_face" signify the calibre of service.

Upon reviewing Table 6, phrases like "food_be_delicious," "delicious_food," and "high_quality" in the Michelin guide restaurant reviews distinctly signify consumer pleasure with food quality. Nonetheless, in enterprises situated in Izmir and Istanbul, concerns such as "service_fee" and "pay_tl" also emerge prominently. These concerns underscore customers' discontent with the pricing. Furthermore, other significant themes in the evaluations, like "nice_place," "beautiful_place," and "smile_face," suggest that patrons are not only content with the meal quality but also with the venue's ambiance and the staff's demeanour. Terms such as "Michelin star" signify that consumers appreciate global standards and esteemed accolades.

Figure 2 presents observations regarding the ambiance of the restaurants featured in the Michelin Guide.

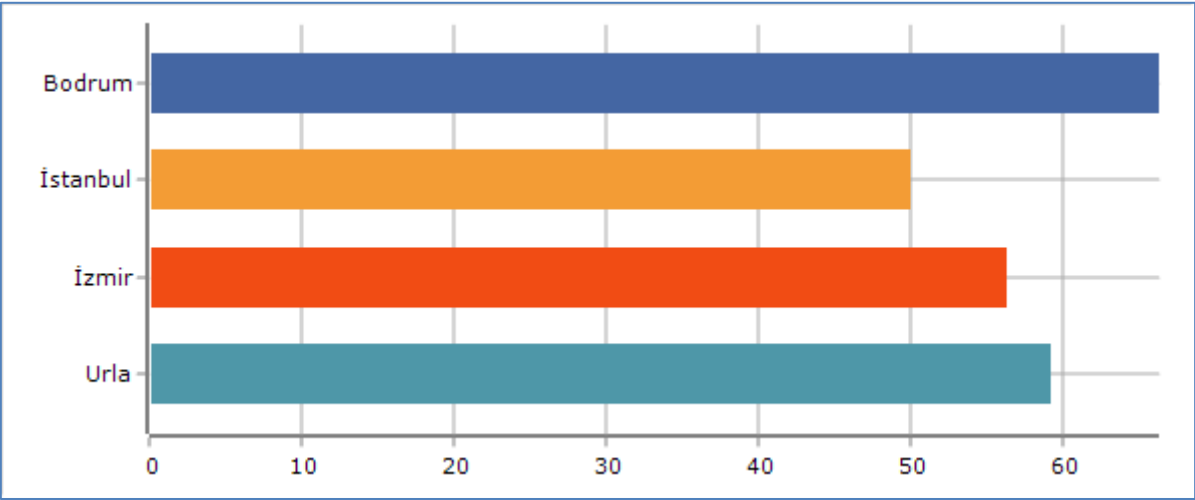


Figure 2. Customer opinions about the restaurant atmosphere

Analysis of figure 2 reveals that customer feedback indicates the ambiance of the restaurants is predominantly affected by the enterprises located in Bodrum. The enterprises in Urla and Izmir succeed those in Bodrum. The

enterprises in Istanbul garnered the lowest recognition for their ambiance.

Figure 3 presents observations regarding the price-performance evaluation of restaurants featured in the Michelin Guide.

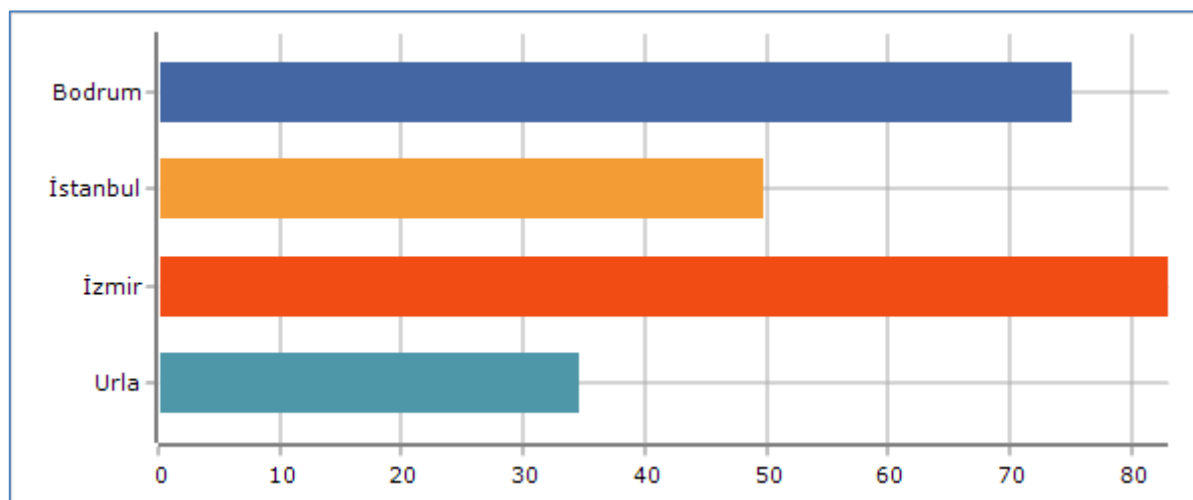


Figure 3. Comments on price-performance ratio according to the location of the restaurants

Upon examining Figure 3, it is evident that clients express the highest satisfaction with enterprises in İzmir regarding price-performance evaluation. The enterprises situated in İzmir are succeeded by those functioning in Bodrum and Istanbul, respectively. The lowest satisfaction regarding price-performance comparison is noted among enterprises in Urla.

Discussion and Conclusion

The results demonstrate that Michelin Guide Bib Gourmand establishments typically provide a superior dining experience. Nonetheless, enhancing elements such as price perception, reservation experience, and service quality might further augment client pleasure. User input, shown by Google Reviews, serves as a crucial instrument for restaurants to enhance and refine their service quality.

This study aims to analyse consumer impressions of restaurants in Türkiye categorised under the Michelin Guide Bib Gourmand using text mining techniques on Google reviews. The results were analysed in relation to existing literature on gourmet tourism and consumer behaviour, organised around the following principal themes.

Michelin Bib Gourmand restaurants serve a diverse clientele by providing exceptional cuisine at affordable costs. The study's findings reveal that customers predominantly prioritise factors such as flavour, cost-effectiveness, and service excellence at these establishments. These results correspond with the findings of Kiatkawsin and Sutherland (2020) regarding the influence of the Michelin guide on consumer trust and preferences. The elevated satisfaction percentages of establishments serving Turkish cuisine (53.2%) underscore the significance of regional flavours in gourmet tourism (Apak & Nazıkgül, 2025). Nevertheless, adverse factors such as prolonged waiting periods, challenges with reservations, and service charges are prominently noted in consumer feedback. This scenario suggests that consumer expectations are elevated in Michelin-starred establishments, and that interruptions in service procedures diminish satisfaction.

- Customer experiences differ based on the cities in which the restaurants are situated.

- In Istanbul's restaurants, the prominence of stuffed meatballs, lamb shank, and service charges is noted; yet, high wait times and challenges in securing reservations due to overcrowding have faced criticism.
- In Izmir, olive oil-based dishes and vine leaf wraps, characteristic of Aegean cuisine, have enhanced satisfaction, establishing it as the place with the optimal price-performance ratio.
- In Bodrum, the acclaim was directed towards the hot appetisers and their low rates, whilst in Urla, the tasting menus and the chef's distinctive presentations garnered recognition.

These findings indicate that the culinary culture of locations influences the consumer experience and underscore the significance of the Michelin Bib Gourmand in endorsing local flavours.

Text mining analyses indicate a sentiment distribution of 55.31% positive and 44.69% negative in customer feedback. Positive remarks highlight "atmosphere," "taste," and "staff friendliness," whilst negative feedback underscores concerns around "price," "waiting times," and "portion size." The findings correspond with the research conducted by Gan et al. (2017) and illustrate that customer satisfaction at Michelin-starred restaurants is multifaceted.

This study is one of the initial research endeavours investigating consumer impressions of Michelin Bib Gourmand restaurants within the Turkish environment. The findings corroborate earlier studies (Ha et al., 2016; Henderson, 2017) regarding the prestige effect of the Michelin guide, while introducing additional aspects such as price sensitivity and a focus on local cuisine. The examination of user-generated content, including Google reviews, yields significant insights for restaurant management and marketing initiatives (Rita et al., 2023).

The constraints of this study are as follows:

- Analysis is restricted to English comments; incorporating comments in the local language could yield more comprehensive findings.
- The dataset is confined to the years 2022-2024; long-term trend analyses remain unexamined. Employing in-depth methodologies, such as qualitative interviews, could facilitate a more detailed exploration of customer motivations.

Future research may undertake a comparative analysis of Bib Gourmand restaurants across other nations or investigate the disparities in consumer perception between Michelin-starred and Bib Gourmand businesses.

Declaration

All authors of the article contributed equally to the article process. The authors have no conflicts of interest to declare.

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