

Research Article

Examining Regional Satisfaction Differences through Sentiment Analysis of Digital Consumer Reviews

Dijital Tüketici Yorumlarında Duygu Analizi ile Bölgesel Memnuniyet Farklılıklarının İncelenmesi

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Makale Geliş Tarihi	Makale Kabul Tarihi
21.08.2025	09.11.2025

Abstract

This study aimed to examine digital consumer reviews for Komagene, Maydanoz Döner, and Popeyes across fourteen selected provinces representing Turkey's seven geographical regions, using a sentiment analysis approach, in order to reveal regional differences in consumer satisfaction. Positive and negative reviews were systematically classified using MAXQDA and Excel, and regional consumer satisfaction was analyzed across multiple dimensions. The findings indicated that Komagene achieved higher positive review rates in the Central Anatolia and Marmara regions, while Maydanoz Döner demonstrated strong positive performance in the Black Sea and Eastern Anatolia regions, primarily driven by service quality and satisfaction-focused feedback. Popeyes, on the other hand, exhibited low positive and high negative review rates in most regions, with negative feedback largely associated with service issues and dissatisfaction. Regional analysis highlighted significant differences between brands and across regions, showing that positive feedback centered on satisfaction and service quality, versus negative feedback focused on service problems and dissatisfaction, played a key role in shaping the brands' strategic positioning. The study is the first to conduct a comprehensive digital review analysis covering all geographical regions of Turkey for these three brands, providing insights for businesses to develop region-specific strategies and contributing a unique regional perspective to the literature.

Keywords: Digital Consumer, Consumer Behavior, Satisfaction, Sentiment Analysis, Consumer Reviews

Öz

Bu araştırma, Komagene, Maydanoz Döner ve Popeyes markalarına ait dijital tüketici yorumlarını, Türkiye'nin yedi coğrafi bölgesinden seçilen on dört il özelinde duygu analizi yöntemiyle inceleyerek, tüketici memnuniyetinin bölgesel farklılıklarını kapsamlı bir şekilde ortaya koymayı hedeflemiştir. Çalışmada MAXQDA ve Excel araçları kullanılarak olumlu ve olumsuz yorumlar sistematik biçimde ayrıştırılmış, bölgesel tüketici memnuniyeti farklı boyutlarıyla detaylı olarak değerlendirilmiştir. Bulgular, Komagene'nin İç Anadolu ve Marmara bölgelerinde yüksek olumlu yorum oranları ile öne çıktığını, Maydanoz Döner'in Karadeniz ve Doğu Anadolu bölgelerinde hizmet kalitesi ve memnuniyet odaklı olumlu performans sergilediğini göstermiştir. Popeyes ise çoğu bölgede düşük olumlu ve yüksek olumsuz yorum oranları ile geri planda kalmış, olumsuz yorumlar ağırlıklı olarak hizmet sorunları ve memnuniyetsizlikten kaynaklanmıştır. Bölgesel analiz, markalar arasında ve bölgeler arasında belirgin farklılıklar ortaya koymuş, memnuniyet ve hizmet kalitesi odaklı olumlu geri bildirimler ile hizmet sorunu ve memnuniyetsizlik odaklı olumsuz yorumların markaların stratejik konumlarını etkilediğini göstermiştir. Araştırma, Türkiye genelinde tüm coğrafi bölgeleri kapsayan ve söz konusu üç markayı ele alan ilk dijital yorum

Önerilen Atıf /Suggested Citation

Karataş, İ.A., 2025, Examining Regional Satisfaction Differences through Sentiment Analysis of Digital Consumer Reviews, *Üçüncü Sektör Sosyal Ekonomi Dergisi*, 60(4), 3976-3996.

analizine dayanan çalışma olma özelliği taşımakta olup, işletmelere strateji geliştirme imkânı sunarken, literatüre özgün bir bölgesel perspektif kazandırmaktadır.

Anahtar Kelime: Dijital Tüketici, Tüketici Davranışları, Memnuniyet, Duygu Analizi, Tüketici Yorumları

1. Introduction

Digital consumer reviews refer to the opinions shared by consumers on company websites or third-party platforms after purchasing a product or service. These reviews directly reflect consumers' satisfaction levels with products and play a significant role in other users' information acquisition and decision-making processes (Liu et al., 2021).

Over the past twenty years, the rapid development of social media and user-generated content platforms has made online reviews a reliable and indispensable source of information in consumer decision-making processes. Research indicates that most consumers trust these reviews, online consumer data are considered more reliable than company-provided information, and digital reviews directly influence online purchase intentions (Saleem et al., 2022). Additionally, digital reviews reduce uncertainty, lower transaction costs, and shape consumer preferences. With their user-friendly structures, flexible content formats, and high expressive power, digital reviews function as a cost-free "sales assistant" within the marketing communication mix (Qiu & Zhang, 2024).

User-generated content related to products can generally affect businesses' demand, sales volume, and financial performance (Chevalier & Mayzlin, 2006; Onishi & Manchanda, 2012). With the widespread adoption of e-commerce and the development of global markets, researchers have begun to comparatively examine online shopping preferences of consumers across different cultural contexts. In this process, individuals' personalities and behaviors are shaped by the cultural values of their environment, which in turn significantly influence consumer behavior (Seongseop Kim & McKercher, 2011; Muradi & Akbiyık, 2020; Wu, 2011).

The aim of this study is to examine consumer reviews from digital platforms of fourteen selected provinces across Turkey's seven geographical regions using sentiment analysis, thereby revealing regional differences in consumer satisfaction. The study evaluates digital consumer reviews from different geographical regions using MAXQDA and other analytical tools (Excel) to uncover regional variations in consumer satisfaction and to provide the literature with a unique regional perspective.

Online reviews play a critical role in reducing the uncertainties faced by consumers during their decision-making processes. In this regard, Hu et al. (2014) emphasize that online reviews not only provide information but also reduce uncertainties in decision-making and perceived risks; this approach directly supports the aim of the study to investigate consumer satisfaction and regional differences through digital reviews.

It should be highlighted that, to date, no study in the literature has examined consumer satisfaction through digital reviews encompassing all geographical regions of Turkey. Accordingly, this research is expected to contribute to the development of strategies that enhance consumer satisfaction by considering regional differences and to provide a novel perspective to the literature.

2. Literature Review

2.1. Digital Consumer Reviews and Their Importance

Digital consumer reviews represent the informal sharing of information and opinions about products, services, or businesses among consumers, occurring in digital environments (Racherla & Friske, 2012). The literature indicates that, compared to traditional marketing tools such as personal selling and advertising, digital consumer reviews generate higher promotional impact, increase awareness among consumers, and significantly influence decision-making processes (Abubakar & Ilkan, 2016), product sales volumes (Hu et al., 2008; Yeap et al., 2014), business performance indicators (Salehan & Kim, 2016; Xie et al., 2014), and consumer satisfaction (Ahani et al., 2019).

The global COVID-19 pandemic, by imposing restrictions on physical retail shopping, redirected consumers to online channels, thereby increasing both the number and strategic importance of feedback shared on digital platforms. In this context, digital consumer reviews provide spontaneous, unbiased,

and more comprehensive data that are less prone to sampling bias compared to traditional surveys, and they are not influenced by artificial effects of laboratory settings (Schuckert et al., 2015; Watson & Wu, 2022). Supporting this perspective, Godes and Mayzlin (2004) demonstrated that online conversations serve as a strong predictor of product and brand performance, highlighting that electronic word-of-mouth (eWOM) functions not only as a medium for opinion sharing but also as a critical signal for marketing strategy development.

With technological advancements and the diversification of services, the ease of using digital sharing systems and the perceived value of such systems have gained increased significance (Ruiz-Alba et al., 2022). Digital reviews play a decisive role in consumer decision-making and are associated with cognitive and relational resources in the formation of social capital (Valenzuela et al., 2009). Users establish strong social connections through shared interests and language on digital platforms, and digital reviews serve three main functions: opinion sharing, information seeking, and information dissemination. Individuals simultaneously perform the roles of opinion leader, information seeker, and information disseminator (Chu & Kim, 2011).

Furthermore, the perceived credibility of review messages is linked to dimensions such as informative content and persuasive power (Fang, 2014), as well as message integrity (Yan et al., 2016); as consumer-platform interaction increases, perceptions of reliability and quality also rise (Peña-García et al., 2024). Digital consumer reviews enable businesses to enhance satisfaction and improve consumer relationships, thereby providing a competitive advantage. Digitization and data analytics increase efficiency in consumer services and play a critical role in satisfaction formation. Chatbots and AI-based solutions offer rapid and continuous support, while digital reviews allow businesses to evaluate feedback in real time. Consequently, consumer satisfaction strengthens, loyalty increases, and firms' competitiveness and sustainability are supported (Brunner et al., 2025).

Online reviews not only improve consumer experience but also function as a strategic data source that shapes brand perception and contributes to the development of marketing strategies (Tirunillai & Tellis, 2014). The literature on digital consumer reviews further demonstrates their impact on consumer behavior. Guo et al. (2022) found that expert reviews tend to dominate over consumer reviews in conflict situations, and the source of the review plays a decisive role in shaping consumer preferences. Li et al. (2021) examined how different review formats (text, visual, video) affect consumer perception and purchase intention, noting that richer content formats enhance engagement and strengthen the decision-making process. Wu et al. (2020) emphasized that positive evaluations reinforce consumer trust, reduce perceived risk, and consequently increase the likelihood of purchase.

Additionally, Abubakar & Ilkan (2016) noted that consumers' sharing of opinions about products or services on digital platforms significantly influences other consumers' decision-making processes. Ketelaar et al. (2015) demonstrated that highly knowledgeable consumers evaluate online reviews differently than inexperienced users, and consumer expertise shapes perceived value. Moe & Schweidel (2012) found that consumers are more likely to share their opinions following extremely positive or negative experiences, whereas Cui et al. (2012) and Papathanassis & Knolle (2011) indicated that negative reviews receive more attention than positive ones. Özalp & Gökçek (2023) highlighted that negative digital consumer reviews affect purchase intentions, while Liao et al. (2021) observed that when perceived risks significantly influence consumer behavior, consumers tend to seek negative information to reduce risks, distrust, and cognitive dissonance.

In addition, regional and cultural differences play a decisive role in customer satisfaction and the sentiment distribution of online reviews in the restaurant sector. Yalcinkaya and Just (2023) analyzed Google reviews of local and chain restaurants using multilevel models, showing that local restaurants exhibit less polarized sentiment tendencies and that service quality has a more pronounced impact on customer satisfaction. Nakayama and Wan (2019) compared English and Japanese reviews of Japanese restaurants, demonstrating that cultural differences significantly influence review content and sentiment distribution. Sean and Lee (2025) examined the geographic clustering of ethnic restaurants, finding that restaurants with lower sentiment tendencies form stronger clusters. Additionally, Rahman et al. (2025) analyzed multilingual reviews and showed that cultural differences affect review content and sentiment distribution, while culturally adapted models improve the accuracy of sentiment analysis. Collectively,

these studies provide a methodological and empirical framework for understanding sentiment patterns in restaurant reviews across different regions and for conducting regional comparisons.

Finally, Eslami et al. (2018) demonstrated that when the variability of review scores is taken into account, positive reviews exert a stronger and more statistically significant impact on sales performance.

2.2. Measuring Consumer Satisfaction Through Sentiment Analysis

Understanding consumer satisfaction has become increasingly critical in today's marketing and e-commerce environments. In this context, consumer satisfaction refers to the extent to which purchased products or services meet expectations, emerging from the evaluation of the gap between pre-consumption expectations and post-consumption perceived performance (Gelashvili et al., 2024). Online reviews and feedback play a significant role in this evaluation process. Online assessments are employed within the framework of big data analytics to enhance product sales, consumer behavior, and customer satisfaction (Chong et al., 2017; Zhao et al., 2019), serving as a critical information source in consumers' decision-making processes.

Emotions encompass consumers' feelings; intense negative emotions such as frustration and anger, as well as strong positive emotions such as satisfaction or excitement, can be considered within this scope (Geetha et al., 2017). The sentiment polarity in online reviews reflects the intensity of positive or negative emotions expressed by users when writing their comments. High polarity values indicate the presence of strong positive emotions. Consequently, positive emotions contribute to customer satisfaction by enhancing the perceived quality of products and services, whereas negative emotions signal customer dissatisfaction (Dai et al., 2015).

Several studies in Turkey have examined sentiment analysis and consumer reviews. Kılıçer and Şamlı (2023) applied eight different machine learning algorithms to Turkish product reviews on e-commerce sites, analyzing a dataset of 11,412 reviews, and found that the Naive Bayes Multinomial (NBM) and Randomizable Filtered Classifier (RO) algorithms achieved particularly high accuracy. Their study simultaneously examined three sentiment dimensions (positive, negative, neutral). Yılmaz and Adalı (2024) analyzed customer reviews on an e-commerce platform using text mining and sentiment analysis methods; their dataset comprised 15,000 reviews, which were classified as positive, negative, or neutral, with customer satisfaction particularly prominent in product quality, delivery time, and customer service dimensions. Tuzcu (2020) reported that the MLP and LR algorithms performed well for sentiment classification of Turkish user reviews, using a dataset of 1,400 reviews, with DVM showing strong performance for positive reviews and NB for negative reviews. Collectively, these studies demonstrate that quantitative methods and sufficiently large datasets are effectively employed in sentiment analysis in Turkey, revealing the key determinants of customer satisfaction.

These analyses indicate that sentiment analysis studies on Turkish datasets remain limited, and the unique structure of the language increases classification challenges. Koruyan (2025) analyzed multilingual online customer reviews using zero-shot text classification, evaluating restaurant customer satisfaction across food, service, environment, and price dimensions. The analyses revealed the positive and negative sentiment distributions of reviews and demonstrated that the method allows managers to identify strengths and weaknesses and understand customer sentiment trends. Similarly, Özen (2021) evaluated reviews of eight restaurants in Gaziantep from foreign tourists using sentiment analysis, finding that tourists expressed positive emotions regarding food taste and restaurant environment, and negative emotions regarding price and crowding. Perçin & Çay (2025) analyzed negative reviews of local restaurants in Konya on TripAdvisor using sentiment and thematic content analysis, revealing that customers frequently expressed negative sentiments related to food and beverages, prices, and staff. Collectively, these studies show that while digital reviews have been analyzed through sentiment analysis, they have either been evaluated at a general level or focused on specific regions.

Literature indicates that research on sentiment analysis is still evolving, with growing attention being paid to the emotional dimensions of online consumer reviews (Zhang et al., 2023). In this context, Davari et al. (2022) emphasize that the dynamic relationship between online reviews and emotions should be explored in greater depth. Building on this perspective, the present study analyzes digital consumer reviews for Komagene, Maydanoz Döner, and Popeyes across fourteen provinces representing Turkey's seven geographical regions to uncover regional differences. By addressing the emotional aspects of

online feedback through sentiment analysis, this research is expected to provide a novel perspective on regional dynamics of consumer satisfaction and offer significant contributions to the literature regarding the emotional dimensions of digital brand evaluations.

3. Method

3.1. Research Design

The aim of this study is to reveal regional differences in consumer satisfaction by analysing consumer reviews on digital platforms in fourteen provinces selected from seven geographical regions of Turkey using sentiment analysis methods. This study was designed within a qualitative research approach. Since the research aims to examine consumer satisfaction through digital reviews and to reveal sentiment analysis differences across Turkey's seven geographical regions, both sentiment analysis and content analysis methods were employed. The qualitative approach was preferred as it allows for an in-depth understanding of participants' experiences and perceptions (Creswell & Poth, 2016). This method is particularly effective in revealing thematic and structural differences in consumer satisfaction and emotional tone analyses. For this study, digital consumer reviews were utilised as publicly available data, and therefore no approval from an ethics committee was required.

The study seeks to answer the following questions:

- 1-What is the overall level of consumer satisfaction in reviews collected from digital platforms?
- 2-What are the consumer satisfaction themes emerging at the regional level?
- 3-How do consumer satisfaction sentiments differ across regions?
- 4-In which dimensions of consumer satisfaction do these regional themes differ?

3.2. Data Collection Process

The data collection process was conducted by selecting the two most populous cities from each of Turkey's seven geographical regions. City selection was based on data from the Turkish Statistical Institute (TÜİK, 2024). The digital data sources focused on in this research are consumer reviews for Komagene, Popeyes, and Maydanoz Döner brands operating nationwide. These brands were specifically selected because their branches are widely distributed across Turkey, ensuring a sufficient number of consumer reviews from all regions. This widespread presence enables the creation of a robust dataset for regional sentiment analysis. Moreover, although all three operate within the food industry, their products differ substantially—Çiğ Köfte, Döner, and Western-style fast food—allowing an in-depth exploration of how consumer evaluations may vary depending on product characteristics and cultural familiarity.

Data were collected via the Google Maps platform by randomly selecting branches of the brands in the relevant cities between July 20 and 30, 2025. For each city, the number of reviews to be collected was determined based on population size to create a representative and balanced dataset. The sample size was calculated as follows: for cities with a population up to 1 million, 20 reviews per brand were collected; for each additional 1 million in population, 10 additional reviews were added; for cities with a population above 0.5 million, the number was rounded up to the next whole number. Although no direct precedent exists in the literature for the specific sampling rule applied in this study (i.e., 20 reviews for cities with up to 1 million inhabitants, with an additional 10 reviews for each subsequent million), proportional and stratified sampling approaches based on population distribution are commonly employed in regional research (Chakraborty et al., 2022; Rahim et al., 2021). Accordingly, the scaling rule adopted in this study is methodologically inspired by these proportional sampling practices in the literature and has been adapted to reflect the regional distribution of online review volumes.

In data analysis, each review was classified as positive, negative, or neutral, and these classifications were subsequently evaluated as percentages. The percentage evaluation method enhances the comparability of data collected from cities of different sizes and makes the analysis results more meaningful. This method also strengthens the representativeness of the data and supports generalizability. Accordingly, 170 reviews from Istanbul and 40 from Bursa were collected in the Marmara Region, and 70 from Ankara and 30 from Konya in the Central Anatolia Region. Similar

population-based ratios were applied to other regions, resulting in a balanced dataset of 1,770 consumer reviews for three brands operating in 14 cities across seven geographical regions Table 1.

Table 1. Regional and Provincial Distribution of Digital Consumer Reviews for Komagene, Maydanoz Döner, and Popeyes

Region	Most Populous Province	Population	Number of Reviews per Brand per Province	Total Reviews for Three Brands per Region
Marmara	İstanbul	15.701 602	170	630
Marmara	Bursa	3.238 618	40	
Central Anatolia	Ankara	5.864 049	70	300
Central Anatolia	Konya	2.330 024	30	
Aegean	İzmir	4. 493 242	50	210
Aegean	Manisa	1.475 353	20	
Mediterranean	Antalya	2.722 103	40	210
Mediterranean	Adana	2.280 484	30	
Black Sea	Samsun	1.382 376	20	120
Black Sea	Trabzon	822 270	20	
Eastern Anatolia	Van	1.118 087	20	120
Eastern Anatolia	Malatya	750 491	20	
Southeastern Anatolia	Gaziantep	2.193 363	30	180
Southeastern Anatolia	Şanlı Urfa	2.237 745	30	
Total Across All Regions				1770

The data presented in Table 1 were collected using an automated data extraction (scraper) method from consumer reviews of brand branches on Google Maps. Only reviews provided by users were considered, while advertisements, spam, or artificial content were removed from the dataset. Before analysis, the collected digital reviews were cleaned of unnecessary characters and repeated expressions, while maintaining linguistic and semantic integrity. The reviews were prepared for coding in terms of negative and positive sentiment intensity as well as thematic content. This process created a thematic and sentiment-based dataset suitable for analysis in MAXQDA.

3.3. Data Analysis

During the data analysis phase, digital reviews were examined using a sentiment analysis approach, and main codes (positive, negative, neutral) were determined based on the emotions expressed in the texts. Each main code was further classified according to relevant sub-codes (satisfaction, service quality, taste; service issues, product issues, hygiene issues, dissatisfaction; experience sharing, informative feedback). Content analysis was adopted as the methodological framework. Initially, the reviews were read repeatedly to identify units of meaning, which were then categorized under main and sub-codes (Mayring, 2014; Krippendorff, 2018). Both inductive and deductive coding techniques were employed, allowing the inclusion of both themes identified in the literature and new sub-codes emerging from the data.

In the sentiment identification process, commonly used content analysis methods were applied to determine the tone of the reviews (Geetha et al., 2017; Hsieh & Shannon, 2005). Reviews were

Table 3. Analysis Results of Nationwide Digital Consumer Reviews for Komagene, Maydanoz Döner and Popeyes

Sentiment Category / Main Code	Subcode / Theme	Frequency (f)	Percentage (%)
Positive (n=890 / 50.3%)	Satisfaction	578	32.7
	Service Quality	163	9.2
	Taste	148	8.4
Total Positive		890	50.3
Negative (n=842 / 47.6%)	Dissatisfaction	266	15.0
	Service Issue	392	22.1
	Product Issue	184	10.4
	Hygiene Issue	13	0.7
Total Negative		842	47.6
Neutral (n=28 / 1.6%)	Experience Sharing	18	1.0
	Information	8	0.5
Total Neutral		28	1.6
Grand Total		1770	100

A total of 1,770 consumer reviews for three different brands (Komagene, Maydanoz Döner, and Popeyes) across seven geographical regions in Turkey were evaluated within the scope of content analysis. The findings indicate that positive expressions (50.3%) slightly outnumber negative expressions (47.6%) in the sentiment distribution of the reviews. Neutral expressions remained relatively low (1.6%). Among positive evaluations, the most prominent theme was satisfaction (32.7%). Additionally, service quality (9.2%) and taste (8.4%) emerged as key dimensions reinforcing consumer satisfaction. In the negative evaluations, service-related issues accounted for the highest proportion (22.1%), followed by dissatisfaction (15.0%) and product-related issues (10.4%). Hygiene issues (0.7%) were mentioned relatively infrequently, indicating that consumer dissatisfaction primarily stems from service processes. Following the nationwide analysis, regional analyses for Komagene, Maydanoz Döner, and Popeyes were conducted, and the results are presented in Table 4.

Table 4. Analysis Results of Digital Consumer Reviews by Region for Komagene, Maydanoz Döner and Popeyes

Region (Provinces)	Positive	Negative	Neutral	Satisfaction	Service Quality	Taste	Service Issue	Product Issue	Hygiene Issue	Dissatisfaction	Experience Sharing	Information
Southeastern Anatolia (Gaziantep – Şanlıurfa)	54 (30.0%)	125 (69.4%)	1 (0.6%)	36 (20.0%)	12 (6.7%)	6 (3.3%)	55 (30.6%)	32 (17.8%)	1 (0.6%)	38 (21.1%)	0 (0.0%)	0 (0.0%)
Eastern Anatolia (Van – Malatya)	47 (39.2%)	70 (58.3%)	3 (2.5%)	10 (8.3%)	25 (20.8%)	12 (10.0%)	44 (36.7%)	22 (18.3%)	0 (0.0%)	5 (4.2%)	2 (1.7%)	2 (1.7%)

Mediterranean (Antalya – Adana)	108 (51.4%)	95 (45.2%)	7 (3.3%)	41 (19.5%)	33 (15.7%)	34 (16.2%)	48 (22.9%)	38 (18.1%)	0 (0.0%)	9 (4.3%)	4 (1.9%)	3 (1.4%)
Aegean (İzmir – Manisa)	102 (48.6%)	107 (51.0%)	1 (0.5%)	55 (26.2%)	28 (13.3%)	19 (9.0%)	57 (27.1%)	27 (12.9%)	4 (1.9%)	19 (9.0%)	0 (0.0%)	1 (0.5%)
Central Anatolia (Ankara – Konya)	168 (56.0%)	126 (42.0%)	6 (2.0%)	112 (37.3%)	33 (11.0%)	23 (7.7%)	56 (18.7%)	29 (9.7%)	1 (0.3%)	40 (13.3%)	3 (1.0%)	3 (1.0%)
Marmara (İstanbul – Bursa)	345 (54.8%)	278 (44.1%)	7 (1.1%)	270 (42.9%)	29 (4.6%)	46 (7.3%)	105 (16.7%)	29 (4.6%)	6 (1.0%)	138 (21.9%)	6 (1.0%)	1 (0.2%)
Black Sea (Samsun – Trabzon)	66 (55.0%)	52 (43.3%)	2 (1.7%)	54 (45.0%)	3 (2.5%)	9 (7.5%)	27 (22.5%)	7 (5.8%)	0 (0.0%)	18 (15.0%)	2 (1.7%)	0 (0.0%)

The analysis results presented in Table 4 reveal that consumer experiences vary at the regional level. Although digital consumer reviews across Turkey’s seven geographical regions show regional differences, they also highlight some common themes. Negative reviews generally focus on service-related issues and dissatisfaction, with particularly high proportions in the Southeastern Anatolia and Eastern Anatolia regions (58.3%–69.4%). Positive reviews, on the other hand, predominantly emphasize satisfaction and, to a lesser extent, service quality or taste, with higher positive evaluations observed in the Central Anatolia, Marmara, and Black Sea regions (54.8%–56.0%). The findings indicate that service quality plays a critical role in consumer experiences across all regions and is a decisive factor in both positive and negative reviews. Despite regional variations, the continuity of consumer satisfaction largely depends on service quality. According to the analysis, the highest negative experience was observed in the Southeastern Anatolia Region (69.4% negative), whereas the highest positive experience rates were found in the Central Anatolia (56.0%) and Black Sea (55.0%) regions. Following the general assessment of consumer reviews for Komagene, Maydanoz Döner, and Popeyes across the seven regions, the reviews for each brand operating in each region were evaluated separately based on main and sub-codes. The analysis results for Turkey’s seven regions are presented below. First, the analysis results for the Southeastern Anatolia Region are shown in Table 5.

Table 5. Analysis Results of Digital Consumer Reviews for Komagene, Maydanoz Döner and Popeyes in Southeastern Anatolia

Brand	Positive	Satisfaction	Service Quality	Taste	Negative	Service Issue	Product Issue	Hygiene Issue	Dissatisfaction	Neutral	Experience Sharing	Information
Komagene	37 (20.6%)	26 (14.4%)	9 (5.0%)	2 (1.1%)	23 (12.8%)	14 (7.8%)	2 (1.1%)	0 (0%)	7 (3.9%)	0 (0%)	0 (0%)	0 (0%)
Maydanoz Döner	13 (7.2%)	7 (3.9%)	2 (1.1%)	4 (2.2%)	20 (11.1%)	20 (11.1%)	14 (7.8%)	1 (0.6%)	12 (6.7%)	0 (0%)	0 (0%)	0 (0%)
Popeyes	4 (2.2%)	3 (1.7%)	1 (0.6%)	0 (0%)	56 (31.1%)	21 (11.7%)	16 (8.9%)	0 (0%)	19 (10.6%)	0 (0%)	0 (0%)	0 (0%)

Examining the consumer reviews for the Southeastern Anatolia Region in Table 5, the positive evaluation rates for Komagene and Maydanoz Döner are limited (around 20%), whereas Popeyes shows a considerably low positive rate (2%). Among the positive sub-codes, Komagene stands out particularly

for satisfaction, while service quality is the dominant feature for Maydanöz Döner. In negative reviews, Popeyes is prominent, especially in the sub-codes of service issues and dissatisfaction. Neutral reviews are negligible across all brands. Overall, Komagene exhibits a relatively balanced positive-negative profile, whereas Popeyes is overshadowed by service-related negative feedback. The analysis results for the Eastern Anatolia Region are presented in Table 6.

Table 6. Analysis Results of Digital Consumer Reviews for Komagene, Maydanöz Döner and Popeyes in Eastern Anatolia

Brand	Positive	Satisfaction	Service Quality	Taste	Negative	Service Issue	Product Issue	Hygiene Issue	Dissatisfaction	Neutral	Experience Sharing	Information
Komagene	20 (16,7%)	6 (5,0%)	10 (8,3%)	4 (3,3%)	14 (11,7%)	6 (5,0%)	0 (0%)	0 (0%)	1 (0,8%)	0 (0%)	0 (0%)	1 (0,8%)
Maydanöz Döner	21 (17,5%)	1 (0,8%)	14 (11,7%)	6 (5,0%)	4 (3,3%)	9 (7,5%)	0 (0%)	4 (3,3%)	2 (1,7%)	0 (0%)	0 (0%)	0 (0%)
Popeyes	6 (5,0%)	3 (2,5%)	1 (0,8%)	2 (1,7%)	34 (28,3%)	26 (21,7%)	8 (6,7%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

In Table 6, the positive evaluations for Komagene and Maydanöz Döner in the Eastern Anatolia Region are around 17%, while Popeyes remains significantly lower at 5%. Positive reviews for Komagene and Maydanöz Döner primarily focus on satisfaction and service quality. In negative reviews, Popeyes is dominant, with service issues, product issues, and hygiene problems being particularly prominent. Neutral reviews are limited. In terms of consumer satisfaction in this region, Komagene and Maydanöz Döner perform better, whereas Popeyes lags behind due to deficiencies in service and products. The analysis results for the Mediterranean Region are presented in Table 7.

Table 7. Analysis Results of Digital Consumer Reviews for Komagene, Maydanöz Döner and Popeyes in the Mediterranean Region

Brand	Positive	Satisfaction	Service Quality	Taste	Negative	Service Issue	Product Issue	Hygiene Issue	Dissatisfaction	Neutral	Experience Sharing	Information
Komagene	43 (20,5%)	11 (5,2%)	18 (8,6%)	14 (6,7%)	16 (7,6%)	8 (3,8%)	0 (0%)	1 (0,5%)	1 (0,5%)	2 (1,0%)	1 (0,5%)	1 (0,5%)
Maydanöz Döner	23 (11,0%)	8 (3,8%)	3 (1,4%)	12 (5,7%)	14 (6,7%)	24 (11,4%)	0 (0%)	4 (1,9%)	3 (1,4%)	2 (1,0%)	0 (0%)	0 (0%)
Popeyes	42 (20,0%)	22 (10,5%)	12 (5,7%)	8 (3,8%)	18 (8,6%)	6 (2,9%)	0 (0%)	4 (1,9%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

In Table 7, in the Mediterranean Region, Komagene and Popeyes stand out with approximately 20% positive reviews, whereas Maydanöz Döner receives a lower positive evaluation at 11%. Among the positive sub-codes, satisfaction and taste are prominent for Komagene, while satisfaction dominates for Popeyes. Negative reviews are at an average level (7–8%), mainly focusing on service issues and

dissatisfaction. In this region, Komagene demonstrates a stronger consumer satisfaction profile, while Maydanoz Döner lags behind in terms of positive review rates. The analysis results for the Aegean Region are presented in Table 8.

Table 8. Analysis Results of Digital Consumer Reviews for Komagene, Maydanoz Döner and Popeyes in the Aegean Region

Brand	Positive	Satisfaction	Service Quality	Taste	Negative	Service Issue	Product Issue	Hygiene Issue	Dissatisfaction	Neutral	Experience Sharing	Information
Komagene	39 (18,6%)	20 (9,5%)	16 (7,6%)	3 (1,4%)	23 (11,0%)	2 (1,0%)	0 (0%)	6 (2,9%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Maydanoz Döner	36 (17,1%)	17 (8,1%)	8 (3,8%)	11 (5,2%)	12 (5,7%)	10 (4,8%)	4 (1,9%)	8 (3,8%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Popeyes	27 (12,9%)	18 (8,6%)	4 (1,9%)	5 (2,4%)	22 (10,5%)	15 (7,1%)	0 (0%)	5 (2,4%)	0 (0%)	1 (0,5%)	0 (0%)	0 (0%)

In Table 8, in the Aegean Region, Komagene (18%) and Maydanoz Döner (17%) show similar positive review rates, while Popeyes has a lower positive rate at 13%. Positive reviews mainly emphasize satisfaction and service quality, whereas negative reviews are primarily shaped by service issues and dissatisfaction sub-codes. Neutral reviews are negligible. Overall, Komagene and Maydanoz Döner demonstrate a balanced profile in terms of regional satisfaction, while Popeyes lags behind due to negative service feedback. The analysis results for the Central Anatolia Region are presented in Table 9.

Table 9. Analysis Results of Digital Consumer Reviews for Komagene, Maydanoz Döner and Popeyes in Central Anatolia

Brand	Positive	Satisfaction	Service Quality	Taste	Negative	Service Issue	Product Issue	Hygiene Issue	Dissatisfaction	Neutral	Experience Sharing	Information
Komagene	91 (30,3%)	65 (21,7%)	22 (7,3%)	4 (1,3%)	5 (1,7%)	3 (1,0%)	0 (0%)	1 (0,3%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Maydanoz Döner	47 (15,7%)	30 (10,0%)	4 (1,3%)	13 (4,3%)	16 (5,3%)	16 (5,3%)	0 (0%)	17 (5,7%)	1 (0,3%)	3 (1,0%)	0 (0%)	0 (0%)
Popeyes	30 (10,0%)	17 (5,7%)	7 (2,3%)	6 (2,0%)	35 (11,7%)	9 (3,0%)	2 (0,7%)	22 (7,3%)	2 (0,7%)	0 (0%)	0 (0%)	0 (0%)

In Table 9, in the Central Anatolia Region, Komagene stands out with a high positive review rate of 30%, with satisfaction being the dominant positive sub-code. Maydanoz Döner ranks second with 16%, while Popeyes shows a lower positive rate of 10%. In negative reviews, Popeyes is notable at 11%, mainly due to service issues and dissatisfaction sub-codes. Neutral reviews are very few. In terms of

consumer satisfaction in this region, Komagene leads, whereas Popeyes lags behind due to service and satisfaction issues. The analysis results for the Marmara Region are presented in Table 10.

Table 10. Analysis Results of Digital Consumer Reviews for Komagene, Maydanoz Döner and Popeyes in the Marmara Region

Brand	Positive	Satisfaction	Service Quality	Taste	Negative	Service Issue	Product Issue	Hygiene Issue	Dissatisfaction	Neutral	Experience Sharing	Information
Komagene	156 (24,8%)	122 (19,4%)	11 (1,7%)	23 (3,7%)	23 (3,7%)	8 (1,3%)	0 (0%)	19 (3,0%)	3 (0,5%)	1 (0,2%)	0 (0%)	0 (0%)
Maydanoz Döner	106 (16,8%)	83 (13,2%)	11 (1,7%)	12 (1,9%)	34 (5,4%)	16 (2,5%)	4 (0,6%)	49 (7,8%)	1 (0,2%)	0 (0%)	0 (0%)	0 (0%)
Popeyes	83 (13,2%)	65 (10,3%)	6 (1,0%)	12 (1,9%)	48 (7,6%)	5 (0,8%)	1 (0,2%)	70 (11,1%)	2 (0,3%)	1 (0,2%)	0 (0%)	0 (0%)

According to Table 10, in the Marmara Region, Komagene achieves the highest positive rate at 24%, with satisfaction being the dominant positive sub-code. Maydanoz Döner ranks second at 17%, while Popeyes shows a lower positive rate of 13%. Negative reviews are higher for Popeyes at 7%, whereas the other brands range between 3–5%; the dominant sub-codes are service issues and dissatisfaction. Overall, Komagene stands out with a positive satisfaction profile, while Popeyes lags behind due to negative feedback stemming from service and dissatisfaction issues. The analysis results for the Black Sea Region are presented in Table 11.

Table 11. Analysis Results of Digital Consumer Reviews for Komagene, Maydanoz Döner and Popeyes in the Black Sea Region

Brand	Positive	Satisfaction	Service Quality	Taste	Negative	Service Issue	Product Issue	Hygiene Issue	Dissatisfaction	Neutral	Experience Sharing	Information
Komagene	28 (23,3%)	25 (20,8%)	2 (1,7%)	1 (0,8%)	5 (4,2%)	2 (1,7%)	0 (0%)	4 (3,3%)	1 (0,8%)	0 (0%)	0 (0%)	0 (0%)
Maydanoz Döner	35 (29,2%)	27 (22,5%)	1 (0,8%)	7 (5,8%)	2 (1,7%)	3 (2,5%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Popeyes	3 (2,5%)	3 (2,5%)	0 (0%)	0 (0%)	35 (29,2%)	19 (15,8%)	2 (1,7%)	14 (11,7%)	2 (1,7%)	0 (0%)	0 (0%)	0 (0%)

According to Table 11, in the Black Sea Region, Maydanoz Döner leads with a 29% positive review rate, followed by Komagene at 23%. Popeyes shows the lowest positive rate at 2%. Positive reviews for Komagene and Maydanoz Döner are primarily satisfaction-focused. In negative reviews, Popeyes is dominant at 29%, particularly due to service issues and dissatisfaction. Neutral reviews are negligible.

In this context, Maydanoz Döner leads in terms of consumer satisfaction, while Popeyes lags due to negative service feedback.

Examining digital consumer reviews across Turkey's seven regions reveals clear differences among brands and regions. Komagene demonstrates a dominant profile in positive reviews, particularly in Central Anatolia (30%) and Marmara (24%), highlighting strong consumer satisfaction. Maydanoz Döner performs positively in the Black Sea (29%) and Eastern Anatolia (17%) regions, standing out with satisfaction- and service quality-oriented feedback. Popeyes, however, generally exhibits low positive (%2–20) and high negative review rates (%28–31), with negative feedback mainly stemming from service issues and dissatisfaction.

Regionally, in Southeastern and Eastern Anatolia, Komagene and Maydanoz Döner lead in positive reviews, while Popeyes lags due to a predominance of negative feedback. In the Mediterranean and Aegean regions, Komagene and Popeyes show similar positive performance, although Maydanoz Döner is more limited in some sub-code dimensions. In Central Anatolia and Marmara, Komagene clearly leads with a high positive review rate, whereas Maydanoz Döner dominates in the Black Sea Region. Across all regions, neutral reviews are minimal and have limited impact on the overall assessment.

Overall, digital reviews are shaped by positive feedback focused on satisfaction and service quality, while negative reviews emphasizing service issues and dissatisfaction highlight differences among brands. These findings indicate that consumer satisfaction exhibits regional variation and clearly illustrate the strategic positions of the brands.

5. Conclusion

According to the findings of this study, digital consumer reviews show significant regional differences. Negative experiences were particularly prevalent in the Southeast Anatolia Region, where 69.4% of consumer reviews were reported as negative. Complaints about the service and general dissatisfaction were common themes. In contrast, positive experiences were most prevalent in the Central Anatolia (56.0%) and Black Sea (55.0%) regions, where positive feedback centred around satisfaction was common. Despite these regional differences, the strongest positive theme across all regions was 'customer satisfaction', while the most common negative theme was service-related issues and dissatisfaction. These findings suggest that consumer satisfaction is influenced by geographical factors and that service quality is crucial in maintaining satisfaction levels.

When evaluated by brand and region, Komagene and Maydanoz Döner generally stand out with positive experiences, while Popeyes lags behind other brands in most regions with low positive and high negative ratings. For example, Komagene has achieved the highest positive ratings in Central Anatolia and Marmara, reinforcing consumer satisfaction; Maydanoz Döner, on the other hand, has demonstrated strong performance focused on satisfaction in the Black Sea and Eastern Anatolia regions. In contrast, Popeyes has low positive rates of only 10–20% in most regions, coupled with high negative rates of around 28–31%, with negative feedback primarily centring on service issues and dissatisfaction. This brand differentiation highlights the necessity for each brand to assess regional consumer needs and expectations separately and adapt service and quality standards accordingly.

In light of the findings, it is recommended that regionally focused strategies be developed for relevant public and private sector stakeholders. On the private sector side, restaurant chains and brands should adapt their service policies by taking into account the distribution of positive and negative themes emerging in each region. For example, for brands such as Popeyes, which have high complaint rates, training and quality control programmes should be launched with the aim of improving service quality and hygiene standards; in the Southeast and Eastern Anatolia, where problems are particularly prevalent, staff training, process optimisation and inspections should be increased. On the other hand, brands with positive profiles, such as Komagene and Maydanoz Döner, should maintain their quality and service standards in regions where they are strong; in regions where they perform relatively poorly, they should focus on addressing shortcomings by strengthening customer experience monitoring mechanisms. Public institutions and local governments can also use consumer reviews on digital platforms to monitor quality in the service sector; for example, municipalities and relevant ministries can reduce satisfaction gaps between regions by organising regional training programmes, certification systems, or incentive

mechanisms to raise service standards. These recommendations can guide stakeholders in making strategic decisions based on the data and analyses obtained.

The originality of this study lies in the fact that it uses a data set covering all geographical regions of Turkey to perform regional sentiment analysis on consumer reviews. The findings of this study align with and extend previous national and international research highlighting the role of regional and cultural factors in shaping consumer satisfaction and sentiment patterns in the restaurant sector. Similar to Yalcinkaya and Just (2023), who found that local restaurants display less polarized sentiment and that service quality strongly affects satisfaction, this study shows that service quality is the primary driver of both positive and negative reviews across Turkish regions. Nakayama and Wan (2019) demonstrated that cultural differences influence review content and sentiment, which resonates with the regional differences observed in the current research, such as higher satisfaction in Central Anatolia and Marmara compared to lower satisfaction in Southeast Anatolia. The clustering effects observed by Sean and Lee (2025) and the cultural adaptations discussed by Rahman et al. (2025) further support the notion that localized consumer expectations and perceptions significantly shape online review sentiment. Moreover, consistent with Eslami et al. (2018), positive reviews appear to exert a stronger influence on overall brand perception, highlighting the strategic importance of fostering satisfaction-focused experiences. Collectively, these comparisons underscore the contribution of the present study by providing a comprehensive, region-based sentiment analysis across all geographical regions of Turkey, which is still largely absent in the literature. The findings offer both empirical and practical insights, emphasizing the necessity for brands to consider regional and cultural dynamics in service quality management and digital marketing strategies.

In particular, the content analysis conducted using samples from seven geographical regions and the sentiment tone assessment using the MAXQDA method have provided a regional perspective that has not been addressed in the literature before. Additionally, the comparison of the digital performance of different brands across numerous provinces offers a comprehensive perspective that previous studies have not focused on. In these respects, the research provides a valuable contribution to the literature on digital marketing and consumer satisfaction.

There are some limitations to this study. Since the analysis is based solely on three restaurant brands and reviews collected from 14 major cities across Turkey, the findings may be limited in their generalisability to other sectors and regional scales. The selection of only two provinces in each geographical region may mean that not all consumer profiles in each region are represented. Additionally, since sentiment analysis and content coding are qualitative methods, the codes obtained are dependent on the researcher's interpretation, and there is a potential for subjectivity in this process. Furthermore, users' demographic characteristics such as age and gender, or their motivations for writing reviews, were excluded from the analysis; therefore, the effects of these factors on satisfaction should be addressed in separate studies.

Some suggestions can be made for future research. First, the scope of the analysis can be expanded to include different sectors and more brands, thereby strengthening the sectoral and geographical generalisability of the results. In addition, the results can be validated or deepened by comparing the current content analysis findings with machine learning or deep learning-based methods. By integrating different data collection methods (e.g., surveys or focus group interviews), multi-dimensional analyses can be conducted using digital review findings. By examining neutral sentiment-containing comments and more detailed sub-themes, the nuances of consumer perception can be better understood. Finally, by planning to repeat similar analyses over time, the effects of seasonality and time-based changes can be identified, enabling the tracking of changes and trends in consumer behaviour.

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Araştırma Makalesi

Examining Regional Satisfaction Differences through Sentiment Analysis of Digital Consumer Reviews

Dijital Tüketici Yorumlarında Duygu Analizi ile Bölgesel Memnuniyet Farklılıklarının İncelenmesi

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Genişletilmiş Özet

Çalışmanın Amacı: Türkiye'nin yedi coğrafi bölgesinden seçilen on dört ilin dijital platformlarında yer alan tüketici yorumlarını duygu analizi yöntemiyle inceleyerek, tüketici memnuniyetinin bölgesel farklılıklarını ortaya koymaktır.

Araştırma Soruları: Dijital platformlardan toplanan tüketici yorumlarında genel tüketici memnuniyeti düzeyi nasıldır? Bölgesel olarak ortaya çıkan tüketici memnuniyeti temaları nelerdir? Tüketici memnuniyeti duyguları bölgeler arasında nasıl farklılık göstermektedir? Bu bölgesel temalar, tüketici memnuniyetinin hangi boyutlarında farklılık göstermektedir?

Literatür Araştırması: Çevrimiçi incelemeler, tüketicilerin karar alma sürecinde belirsizlikleri azaltmada önemli bir rol oynamaktadır. Hu vd., (2014), çevrimiçi incelemelerin yalnızca bilgi aktarımı sağlamadığını, aynı zamanda algılanan riskleri azalttığını belirtmektedir. Bu durum, araştırmanın dijital yorumlar aracılığıyla tüketici memnuniyeti ve bölgesel farklılıkları inceleme amacını doğrudan desteklemektedir. Literatürde Türkiye'nin tüm coğrafi bölgelerini kapsayan dijital yorum temelli bir memnuniyet çalışmasına rastlanmamıştır. Bu yönüyle araştırmanın, işletmelerin bölgesel farklılıkları dikkate alarak tüketici memnuniyetini artıracak stratejiler geliştirmesine ve literatüre özgün bir katkı sunmasına olanak sağlaması beklenmektedir.

Dijital tüketici yorumları, tüketiciler arasında ürünler, hizmetler veya işletmeler hakkında yapılan resmi olmayan bilgi ve görüş paylaşımlarının dijital ortamda gerçekleşen biçimlerini temsil etmektedir (Racherla & Friske, 2012). Literatürde, dijital tüketici yorumlarının geleneksel pazarlama araçlarına (örneğin kişisel satış ve reklam) kıyasla daha yüksek düzeyde tanıtım etkisi yarattığı, tüketiciler arasında farkındalığı artırdığı ve bunun tüketici karar verme süreçlerini (Abubakar & Ilkan, 2016), ürün satış hacimlerini (Hu vd., 2008; Yeap vd., 2014), işletme performans göstergelerini (Salehan & Kim, 2016; Xie vd., 2014) ve tüketici memnuniyetini (Ahani vd., 2019) anlamlı biçimde şekillendirdiği belirtilmektedir.

Gelişen teknolojiyle birlikte hizmet çeşitliliği artarken, dijital tüketicilerin paylaşım sistemlerini kullanma kolaylığı ve algılanan değere ilişkin değerlendirmeleri önem kazanmıştır (Ruiz-Alba vd., 2022). Dijital yorumlar, tüketici karar alma süreçlerinde belirleyici rol oynarken, sosyal sermayenin bilişsel ve ilişkisel kaynaklarıyla ilişkilendirilmektedir (Valenzuela vd., 2009). Kullanıcılar, dijital platformlarda ortak ilgi alanları aracılığıyla güçlü sosyal bağlar kurmakta; dijital yorumlar ise bilgi arayışı, görüş paylaşımı ve bilgi iletimi işlevlerini üstlenmektedir. Bu işlevler aracılığıyla bireyler hem görüş lideri hem bilgi arayıcısı hem de bilgi ileticisi rollerini üstlenmektedir (Chu & Kim, 2011).

Dijital tüketici yorumları ile ilgili literatür incelendiğinde, çeşitli araştırmalar bu yorumların tüketici davranışına etkisini ortaya koymaktadır. Guo vd., (2022), uzman incelemelerinin çatışma durumlarında genellikle tüketici yorumlarına kıyasla daha baskın olduğunu ve inceleme kaynağının tüketici tercihlerini şekillendirmede belirleyici olduğunu göstermiştir. Li vd., (2021), farklı inceleme formatlarının (metin, görsel, video) tüketici algısı ve satın alma niyetini nasıl etkilediğini incelemiş ve daha zengin içerik formatlarının etkileşimi artırarak karar alma sürecini güçlendirdiğini belirtmiştir. Wu vd., (2020), olumlu değerlendirmelerin tüketici güvenini pekiştirerek algılanan riski azaltacağını ve böylece satın alma olasılığını yükseltebileceğini vurgulamıştır.

Buna ek olarak, Abubakar & Ilkan (2016), tüketicilerin ürün veya hizmetle ilgili görüşlerini dijital platformlarda paylaşarak diğer tüketicilerin karar süreçlerini anlamlı biçimde etkilediklerini ifade etmişlerdir. Ketelaar vd., (2015), bilgi düzeyi yüksek tüketicilerin çevrimiçi incelemeleri deneyimsiz kullanıcılara kıyasla farklı biçimde değerlendirdiğini ve tüketici uzmanlığının algılanan değeri şekillendirdiğini göstermiştir. Moe & Schweidel (2012), aşırı olumlu veya olumsuz deneyimlerde tüketicilerin görüşlerini paylaşma eğilimlerinin arttığını ortaya koyarken, Cui vd., (2012) ve Papathanassis & Knolle (2011), olumsuz yorumların psikolojik olarak olumlu yorumlara kıyasla daha fazla dikkate alındığını belirtmişlerdir. Özalp & Gökcek (2023), olumsuz dijital tüketici yorumlarının satın alma niyetini etkilediğini belirtirken, Liao vd., (2021), algılanabilir risklerin tüketici davranışı üzerinde büyük etkisi olduğunda, tüketicilerin olumsuz bilgileri daha çok aradıklarını ve böylece risk, güvensizlik ve bilişsel uyumsuzluklarını azaltmayı hedeflediklerini tespit etmiştir.

Yöntem: Bu çalışma, nitel araştırma yaklaşımı çerçevesinde tasarlanmıştır. Türkiye'nin yedi coğrafi bölgesinde tüketici memnuniyetinin dijital yorumlar aracılığıyla incelenmesi ve duygu farklılıklarının belirlenmesi amacıyla duygu analizi ile içerik analizi birlikte kullanılmıştır. Nitel yaklaşım, katılımcıların deneyim ve algılarını derinlemesine anlamaya olanak tanıdığı için tercih edilmiştir (Creswell & Poth, 2016). Bu yöntem, özellikle tüketici memnuniyeti ve duygusal ton analizinde yorumlardaki tematik ve yapısal farklılıkları ortaya koymada etkilidir.

Veri toplama süreci, Türkiye'nin yedi coğrafi bölgesinden her biri için nüfusu en yüksek iki şehrin seçilmesiyle yürütülmüştür. Şehir seçimi Türkiye İstatistik Kurumu (TÜİK, 2024) verilerine dayandırılmıştır. Araştırmanın odaklandığı dijital veri kaynaklarını, Türkiye genelinde faaliyet gösteren Komagene, Popeyes ve Maydanoz Döner markalarına ait tüketici yorumları oluşturmaktadır. Veriler, Google Maps üzerinden bu markaların ilgili şehirlerdeki şubeleri basit tesadüfi örnekleme yöntemiyle belirlenerek 20–30 Temmuz 2025 tarihleri arasında toplanmıştır. Her şehir için nüfus büyüklüğüne göre yorum sayısı belirlenmiş ve dengeli bir veri seti oluşturulmuştur. Örneklem büyüklüğü şu şekilde hesaplanmıştır: Nüfusu 1 milyona kadar olan şehirlerden her marka için 20 yorum; 1 milyonun üzerindeki her ek 1 milyon için 10 yorum daha eklenmiş, 0,5 milyonun üzerindeki şehirlerde ise sayı bir üst tam sayıya tamamlanmıştır.

Veri analizinde her yorum, olumlu, olumsuz veya nötr olarak sınıflandırılmış ve bu sınıflar yüzdelik dilimler hâlinde değerlendirilmiştir. Bu yöntem, farklı büyüklükteki şehirlerden toplanan verilerin karşılaştırılabilirliğini artırarak sonuçların anlamlılığını güçlendirmiştir. Ayrıca verilerin temsil gücünü artırarak genellenebilirliği desteklemiştir. Bu doğrultuda, her marka için Marmara Bölgesi'nde İstanbul'dan 170, Bursa'dan 40; İç Anadolu'da Ankara'dan 70 ve Konya'dan 30 yorum derlenmiştir. Diğer bölgelerde de benzer nüfus oranları temel alınarak yorum sayıları belirlenmiştir. Böylece 7 coğrafi bölgeden, 14 şehirde faaliyet gösteren üç markaya ilişkin toplam 1.770 tüketici yorumu içeren dengeli bir veri seti oluşturulmuştur.

Sonuç ve Değerlendirme: Bu araştırmanın bulgularına göre dijital tüketici yorumları bölgesel açıdan önemli farklılıklar göstermektedir. Özellikle Güneydoğu Anadolu Bölgesi'nde olumsuz yorumlar (%69,4) ağırlıktadır ve şikâyetler daha çok hizmet kalitesi ve genel memnuniyetsizlik üzerinde yoğunlaşmaktadır. Buna karşılık, İç Anadolu (%56,0) ve Karadeniz (%55,0) bölgelerinde olumlu yorumlar öne çıkmakta ve “müşteri memnuniyeti” teması baskın olarak görülmektedir. Genel olarak en güçlü olumlu tema müşteri memnuniyeti, en yaygın olumsuz tema ise hizmetle ilgili sorunlar ve memnuniyetsizliktir.

Marka-bölge karşılaştırmalarında Komagene ve Maydanoz Döner genellikle olumlu deneyimlerle öne çıkarken, Popeyes düşük olumlu (çoğu bölgede %10–20) ve yüksek olumsuz oranları (%28–31) ile geri planda kalmaktadır. Komagene, İç Anadolu ve Marmara’da en yüksek olumlu değerlendirmeleri alırken; Maydanoz Döner, Karadeniz ve Doğu Anadolu’da güçlü bir performans sergilemiştir. Popeyes ise olumsuz yorumlarda genellikle hizmet ve memnuniyetsizlik konularında yoğunlaşmaktadır. Bu bulgular, markaların bölgesel farklılıkları dikkate alarak hizmet kalitesini uyarlaması gerektiğini göstermektedir. Mevcut literatürde Türkiye’nin tüm coğrafi bölgelerini kapsayan dijital yorum temelli bir tüketici memnuniyeti araştırmasına rastlanmamıştır. Bu yönüyle çalışma, işletmelere bölgesel farklılıklara duyarlı stratejiler geliştirme konusunda yol gösterici olmakta ve literatüre özgün bir katkı sunmaktadır. Bulgular, çevrimiçi yorumların duygu dağılımında bölgesel ve kültürel faktörlerin belirleyici rolünü vurgulayan önceki çalışmalarla uyumludur (Yalcınkaya & Just, 2023; Nakayama & Wan, 2019; Sean & Lee, 2025; Rahman vd., 2025). Hizmet kalitesi, olumlu ve olumsuz geri bildirimleri şekillendiren temel unsur olarak öne çıkarken; olumlu deneyimler, marka algısını güçlendirerek memnuniyet odaklı stratejilerin önemini ortaya koymaktadır (Eslami vd., 2018). Sonuç olarak, bu araştırma Türkiye genelinde kapsamlı bir bölgesel duygu analizi sunarak hem ampirik hem de pratik açıdan değerli bulgular sağlamaktadır.

Araştırmanın sonuçları doğrultusunda; özel sektör için hizmet politikalarının bölgesel dağılım dikkate alınarak düzenlenmesi önerilmektedir. Popeyes gibi yüksek şikâyet oranına sahip markalar için hizmet kalitesini ve hijyen standartlarını artırmaya yönelik eğitim ve denetim programları önerilirken; Komagene ve Maydanoz Döner gibi güçlü profildeki markaların güçlü oldukları bölgelerde kaliteyi koruması, zayıf oldukları bölgelerde ise eksiklikleri gidermeye odaklanmaları tavsiye edilmektedir. Kamu kurumları ve yerel yönetimler de dijital yorumlardan yararlanarak bölgesel hizmet kalitesi farklılıklarını azaltmak için eğitim, sertifikasyon ve teşvik mekanizmaları geliştirebilir.

Çalışmanın özgünlüğü, Türkiye’nin tüm coğrafi bölgelerini kapsayan bir veri seti kullanılarak bölgesel duygu analizi yapılmasında yatmaktadır. Ayrıca farklı markaların bölgesel performanslarının karşılaştırılması, tüketici memnuniyeti araştırmalarına kapsamlı bir katkı sunmaktadır.

Araştırmanın bazı kısıtları bulunmaktadır. Analiz yalnızca üç marka ve 14 büyük şehirden toplanan yorumlara dayandığı için genelleme sınırlıdır. Her bölgeden iki ilin seçilmesi tüm tüketici profillerini tam olarak yansıtmayabilir. Ayrıca nitel kodlama süreci araştırmacı yorumuna bağlı olduğundan öznel unsurlar içerebilir. Demografik özellikler ve kullanıcı motivasyonları çalışmaya dahil edilmediğinden, bu faktörlerin etkileri gelecekteki araştırmalarda incelenmelidir.

Gelecek çalışmalar için, farklı sektör ve markaların dahil edilmesi, makine öğrenmesi ve derin öğrenme yöntemleriyle sonuçların karşılaştırılması, ayrıca anket ve odak grup gibi farklı veri toplama tekniklerinin entegre edilmesi önerilmektedir. Nötr yorumlar ve alt temalar daha ayrıntılı incelenebilir; benzer analizlerin zaman içinde tekrarlanmasıyla mevsimsellik ve zamana bağlı değişimlerin etkileri değerlendirilebilir.