



Evaluation of Customer Complaints for Online Food Ordering Web Sites Using the MARCOS Method

MARCOS Yöntemi ile Online Yemek Sipariş Web Sitelerine Yönelik Müşteri Şikayetlerinin Değerlendirilmesi

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ÖZET

İşletmelere yönelik gerçekleşen müşteri şikayetleri doğrudan pazar verisinin elde edilmesine imkân tanıyarak mevcut durumda rekabeti kısıtlayan faktörlerin tanımlanması ve çözüme kavuşturulması şansını sunan bir iletişim olarak değerlendirilmektedir. Ancak öz itibari ile şikâyet kavramı olumsuz bir geribildirim barındırmakta dolayısı ile şikâyet sayısındaki sayısal artış işletmelerin faaliyetlerindeki ortaya çıkan hataları da göz önüne getirmektedir. Bu nedenle işletmelerin müşteri odaklı rekabetçi üstünlüğü sağlamalarında doğru bir şikâyet yönetimi sürecinin planlanması gerekmektedir. Bu çalışma Türkiye’de online yemek siparişi alanında faaliyet gösteren “getir, yemeksepeti, tıklagelsin ve trendyol yemek” isimli firmalara yönelik müşteri şikayetlerini “şikayetvar” isimli web adresinden elde ederek değerlendirme ve analiz etme amacı taşımaktadır. Toplamda on üç kriterin kullanıldığı ve her bir firmaya ait en güncel 500 siparişin göz önünde bulundurulduğu analiz sürecinde son yıllarda çok kriterli karar verme teknikleri arasında yer alan MARCOS Yöntemi (Measurement Alternatives and Ranking according to the Compromise Solution) (Ölçüm Alternatifleri ve Uzlaşık Çözüme Göre Sıralama) kullanılmıştır. Çalışma sonucunda şikâyet yönetimi açısından firmaların sıralanmasında en iyi firma yemeksepeti, ikinci firma tıklagelsin, üçüncü firma getir ve son firma ise trendyol yemek olarak bulunmuştur.

ABSTRACT

Customer complaints against businesses are considered as communication that provides the chance to identify and resolve the factors limiting competition in the current situation by allowing direct market data to be obtained. However, the concept of complaint inherently contains negative feedback, so the numerical increase that may occur in complaints also brings into account the errors that occur in the activities of the enterprises. For this reason, a correct complaint management process should be planned for businesses to provide a customer-oriented competitive advantage. This study aims to evaluate and analyze customer complaints about companies named "getir, yemeksepeti, tıklagelsin, and Trendyol Yemek" operating in the field of online food ordering in Turkey, by obtaining the data from the website named "şikayetvar". The MARCOS Method (Measurement Alternatives and Ranking according to the Compromise Solution), which is among the multi-criteria decision-making techniques in recent years, has been used in the analysis process, in which thirteen criteria are used in total and the most recent 500 orders of each company are taken into consideration. As a result of the study, it has been found that the best company in ordering the companies in terms of complaint management is Yemeksepeti, the second company is click-gel, the third company is bring, and the last company is Trendyol Yemek.

The essence of modern marketing is that it represents a developing understanding of customer focus, which ensures that customer satisfaction is at the heart of the success of businesses in their marketing efforts. Because dissatisfaction is included as a very clear factor in front of customers who do not have the satisfaction to repurchase and consumers share their dissatisfaction with businesses through complaints. The concept of complaint, which is likely to be defined as dissatisfaction caused by non-fulfillment of customer expectations (Gökdeniz, Bozacı and Karakaya; 2011: p. 173), can be seen as a variable that can significantly affect the level of competition in cases where businesses cannot produce solutions. Complaints, as an interactive process between businesses and their customers (Davidow and Dacin, 1997), should be considered as an indicator of corporate performance evaluation, pointing to problems or failures in internal processes that need to be corrected quickly to prevent profitable customers from switching to competitors (Filip, 2013: p. 271). There are multiple reasons for the emergence of a customer's complaint about any product or service. These reasons are such as; insufficient satisfaction of existing needs, various disruptions in the provision of goods and services, or arising in the process of purchasing. In this context, businesses should solve such problems without wasting time when they arise and end the problem before it turns into a crisis (Selvi 2007: p. 119). As Barlow and Moller (1998: p. 49) have found in their studies, one out of every four customers who purchase products or services from businesses makes complaints to companies about the products/services they receive. Therefore, by considering the complaints as the feedback made by the customers after the purchase, the factors that drive the customer away from the business are presented to the businesses as an example.

The existence of customer complaints leads businesses to take action in response to such requests, and maintaining this situation systematically is explained with the concept of complaint management. Fornel and Wernerfelt (1987) evaluate businesses' adaptation of complaint management processes within defensive marketing strategies. Because complaints arise as a result of certain customer interactions and negative experiences, in this context, businesses focus on resolving complaints as a reactive response. However, according to Johnston and Mehra (2002), it is stated that the speed of the business reaction in the process of resolving the complaints does not have a sufficient effect, this process requires preventive planning based on human communication and for the future, therefore customer complaints should be evaluated as an input in terms of strategic marketing. According to Demirel (2006: p. 150), the purposes of enterprises in their complaint management practices are to prevent customers from passing to competitors, to increase customer satisfaction, to make customer image and attitude positive, to increase cross-selling to customers, and to encourage a positive effect in communication with customers. At the same time, increasing competition and the number of businesses cause the loyalty levels of consumers to weaken against businesses. The increase in the number of companies competing on the same level in the market is one of the main causes of this situation. At the same time, the increase in the area that online channels have in the consumption culture raises the current level of competition to an even more challenging level. In this respect, it is important to evaluate customer complaint management in terms of sustainability towards customer loyalty. Due to service-based businesses increasingly generating income through the creation and maintenance of long-term relationships with their customers (Gupta et al. 2006: p. 139), it can be said that the lifetime value of customers has a linear effect on the life expectancy of enterprises. In this respect, customer lifetime value (Berger and Nasr, 1999), which has been defined as the goal of direct response marketing for many years, is considered as the goal of customer complaint management. Thus the management of customer complaints with accurate and satisfaction-oriented business models can turn into a strategic advantage for businesses. Therefore, it is very important to carry out academic research in the focus of the complaint management which can enhance the business view upon to customers. For that reason, this study is prepared within the scope of evaluating and analyzing the customer complaints against "getir, yemeksepeti, tiklagelsin, and trendyol yemek" companies that are operating in the online food ordering sector by using the "MARCOS Method", which is one of the multi-criteria decision-making methods. The MARCOS Method (Measurement Alternatives and Ranking according to the COMpromise Solution), is a flexible method and the fact that it allows for the evaluation of a large number of criteria with compromise solution, that it can be used in the solution of complex problems despite being a simple solution algorithm and that it is a strong and reliable decision-making tool for the optimization of multiple purposes can be listed as its advantages in comparison with other similar methods (Arsu and Ayçin, 2021: 58). The study is planned by evaluating the literature related to the research area, explaining the research method, presenting the findings, and stating the conclusion part.

1. LITERATURE REVIEW

Although it has been determined that there is very deep literature within the scope of customer complaints and complaint management, it is seen that many studies have been carried out in terms of the value and importance of customer complaints about businesses and the classification of complaints within the scope of various sectors.

Cho, Hiltz and Fjermestad (2002) evaluated 1000 complaints about online customer complaints, and they state that e-businesses should primarily provide excellent online customer service and that customers' requests/complaints should be handled quickly, as response speed is more important in online customer satisfaction than offline. Lee and Hur (2019: p. 1) similarly state that businesses need a well-organized complaint management system and well-trained employees to handle these complaints. According to the authors, a properly planned complaint management system increases the quality of interaction between the

customer and the business. According to Gilly, Stevenson and Yale (1991), the only responsible for the optimal resolution of customer complaints is not the employee who comes into contact with the customer, and managers have at least as many shares of this responsibility as employees. In support of this proposition, Alvares, Casielles and Martin (2010) state that to increase the customer loyalty levels of businesses, it is necessary to establish an effective complaint management system and to employ trained and motivated personnel who are fully committed to the company's goals. According to Davidow and Dacin (1997), customers who complain provide the company with opportunities to identify internal shortcomings and develop an appropriate improvement strategy. At the same time, according to Johnston (2001), customer complaint management has a positive effect on profitability. However, the complaint management process should be carried out by introducing organizational improvements and ensuring that the complaint processes are "staff-friendly", rather than just trying to please customers. According to Former and Wernerfelt (1987), complaint management is an example of defensive marketing. As a defensive strategy, complaint management can reduce overall marketing spending by significantly reducing the cost of offensive marketing efforts such as advertising. Another important advantage of complaint management, as well as its contribution to costs, is customer satisfaction. According to Kocabaş (2022), businesses can achieve customer satisfaction at the rate of 82.0% to 90.1% as a result of resolving the complaints directed to them with the right communication approach and effective e-complaint management.

In the literature, it can be said that the current focus on complaint management is e-complaints and e-complaints management. The fact that online communication is considered so important is digitalization and, as Maurer and Schaich (2011) stated, consumers receive support from online comments in the process of creating their complaints about the experiences they consider critical. Therefore, online reviews offer the opportunity to identify weaknesses and identify potential customer needs for businesses. However, according to Kabakçı and Köker (2017), unlike traditional corporate communication methods, online complaints, made the focus of consumer expectations and in a dialogical manner, grow in snowballs due to the obstacles faced in the process of reaching the business, often result as consumer leaving the business. As a result of Breitsohl, Khammash and Griffiths (2010)'s studies in which they evaluated online complaints from the point of view of complainants, companies, and third-party consumers, it was found that reliability and compliance in attitude orientation positively improved the perceptions of complaint benefits of third-party consumers, and their assessment of complaint dialogue was strongly biased.

Another important aspect that should be evaluated within the scope of complaint management is related to the identification and analysis of complaints that consumers make within the scope of various sectors. Lee and Lee (2006) conducted a study of 68 college students who visited a fake online retailer selling used laptops and found that stores can recover from their potentially damaged reputations through effective complaint management and that negative feedback negatively impacts the initial trust of consumers. In a study investigating online complaints against mobile phone brands in Turkey to develop a complaint map among consumers; it has been found that product replacement, warranty, operating system, charger, speaker, signal, and product return are important connection points in consumer complaints (Tokay Argan, 2014). Another study conducted within the scope of online complaints regarding smartphones determined that the brands that received the most complaints were Lenovo, Vestel, and Samsung (Pajo and Selvi, 2019). Yılmaz and Bal (2022), on the other hand, in their research in which they evaluated the corporate reputations of airline companies on the website named 'sikayetvar.com', found that most of the complaints focused on the product and service and financial performance components. They found that the complaints arise especially within the framework of the attitudes and behaviors of the employees, the delays in refunding the ticket fees in case of flight cancellation, the transportation status of pets, the use of social media accounts and companies' return to complaints criteria. Ünal (2019) classified the e-complaints made by hotel customers on 'sikayetvar.com', and determined 10 different code titles, that the most common complaint was under the title of hygiene and cleaning. Kütük (2021) focused on e-complaints against digital travel intermediaries and found that cancellation of reservations and refund of canceled reservations were the highest number of complaints. In addition, the author found that businesses were able to resolve only 15.31% of total complaints. Bal (2014) evaluated the customer complaints encountered by online sales entrepreneurs on 'sikayetvar.com', found that they were grouped under the three main categories: sales process (60.2%), after-sales (26.9%) and call centers (12.3%). Şantaş, Şantaş and Eriğüç (2019) evaluated 522 complaints about private hospitals and 723 complaints about public hospitals using the keywords "state hospital" and "private hospital" on 'sikayetvar.com'. They found that the highest number of complaints was similarly determined as "doctor's apathy and lack of courtesy" from the point of view of both private and public hospitals. On the other hand, is prepared with the focus of companies in the field of online food ordering and contributes to an area that is thought to be missing in the literature. Although there is a deep interest in the method used in the study in the literature, this study aims to contribute to an area that is thought to be missing in the literature, with the focus of companies in the field of online food ordering.

Considering the studies mentioned in the literature summary, the original contribution of the study carried out in theory and practice should also be mentioned. The theoretical contribution of the study is the presentation of findings on the performance of online food ordering companies, which are frequently used by consumers for their food needs, in terms of customer

complaints management. In addition, as of the results of the study, it also allows the decision processes to be realized more effectively by defining the current positions of online food order companies regarding complaint management.

2. METHODOLOGY

Customer complaints are the data that allow identifying competitive threats and opportunities as feedback on the activities of businesses, and identifying weaknesses and strengths of businesses. In this respect, it will be possible for businesses to immediately evaluate customer complaints regarding their activities and direct them to satisfactory results, thus preventing possible customer losses. From this point of view, the main purpose of the study is to determine customer complaints of "getir, yemeksepeti, tiklagelsin, and trendyol yemek" companies operating in the field of online food ordering, and to analyze the alternatives in order of preference through the "MARCOS" method, which is among the multi-criteria decision-making methods. In line with the target determined in the study, the complaints about the companies were obtained from the website named "sikayetvar.com", which has an important place in the reporting of customer complaints in Turkey, by evaluating the most recent 500 customer complaints before 06/06/2022 belonging to each company. And the method has recently gained popularity in the national and international literature. Since the method, developed by Stević et al. (2020a), and is a recent method, there are a limited number of studies in the literature in the context of customer complaints. Thus the current study is the first research in the literature and an important contribution to the line of the literature. As a fairly new technique among multi-criteria decision-making methods, the MARCOS Method is used by researchers in national and international research to sort the alternatives and solve the problems of choosing the best alternative. MARCOS Method is considered as a decision method in the process of "determination of supplier selection alternatives" in Puska et al. (2021); Badi and Pamucar (2020); Biswas, (2020); Chattopadhyay (2020); Madenoğlu (2020); "determination of public transportation alternatives" in Pamucar et al. (2020); risk assessment" in Stevic et al. (2020b); "Determining the effects of the Covid-19 pandemic on participation banks" in Gençtürk et al. (2021); "selection of the most appropriate distribution channel" in Dalic et al. (2020); "innovative and entrepreneurial selection of universities" in Çınaroğlu (2021); "evaluation of the best airports in the world" in Özdağoğlu et al. (2021); "analysis of destination competitiveness performances of Mediterranean countries" in Altıntaş (2021); "analysis of financial performances of transportation enterprises" in Pala (2021) and "solving the selection problems of internet service providers" in Tuş and Aytaç Adalı (2021).

Multi-criteria analysis methods are about making decisions by considering more than one criterion. According to Riple (2013) and Puska et al. (2020, p.91), the main features of multi-criteria decision analysis applications are as follows:

- It often happens that one alternative is better than the other on one criterion, and the other is better than the first on the second criterion.
- It is not always the case that one alternative is better than the other in all criteria, so there is no strictly mathematically optimal solution in this case.
- Resolving the problem means finding a compromise solution.

In this context, as a very up-to-date method used in the study, MARCOS is developed based on both ideal and non-ideal solutions, measuring the benefits of alternatives and calculating different utility functions based on alternative values to determine alternative weights and rankings (Stevic et al., 2020a: p. 106). In the method, decision-making preferences are defined according to utility functions; The utility function is evaluated as the position of an alternative relative to ideal and non-ideal solutions. In the method, the best alternative is stated as the closest to the ideal and the farthest from the anti-ideal (Stanković et al., 2020). The MARCOS Method consists of 7 stages in practice (Stevic et al., 2020a; Puska et al., 2020; Biswas, 2020; Çınaroğlu, 2021):

Stage 1: Determination of the Initial Matrix

$$X = \begin{bmatrix} x_{11} & x_{12} & \dots & x_{1n} \\ x_{21} & x_{22} & \dots & x_{2n} \\ \dots & \dots & \dots & \dots \\ x_{m1} & x_{m2} & \dots & x_{mn} \end{bmatrix}, \quad (1)$$

In the initial decision matrix, m is the number of options, n is the number of criteria, and x_{mn} is the value of n criteria in m options.

Stage 2: Determination of the Extended Initial Matrix

$$X = \begin{matrix} & \begin{matrix} AAI \\ A_1 \\ A_2 \\ \dots \\ A_m \\ AI \end{matrix} & \begin{bmatrix} x_{aa1} & x_{aa2} & \dots & x_{aan} \\ x_{11} & x_{12} & \dots & x_{1n} \\ x_{21} & x_{22} & \dots & x_{2n} \\ \dots & \dots & \dots & \dots \\ x_{m1} & x_{m2} & \dots & x_{mn} \\ x_{ai1} & x_{ai2} & \dots & x_{ain} \end{bmatrix} \end{matrix} \quad (2)$$

In the second step of the method, the expanded initial matrix in Equation (2) is created by adding ideal and anti-ideal solutions to the initial decision matrix obtained earlier. All the considered evaluation criteria are now grouped into two categories, i.e. benefit (larger-the-better) (represented by B) and cost (smaller-the-better) (denoted by C). The anti-ideal solution (AAI) is the worst alternative, while the ideal solution (AI) is the best alternative. The terms in the matrix are explained as follows:

$$AAI = \min_i x_{ij} \text{ if } j \in B \text{ and } \max_i x_{ij} \text{ if } j \in C \quad (3)$$

$$AI = \max_i x_{ij} \text{ if } j \in B \text{ and } \min_i x_{ij} \text{ if } j \in C \quad (4)$$

Stage 3: Determination of the Normalized Extended Matrix

At this stage of the method, the expanded matrix is normalized. Equation (5) and equation (6) are used to create the normalized

$$n_{ij} = \frac{x_{ai}}{x_{ij}} \text{ if } j \in C \quad (5)$$

$$n_{ij} = \frac{x_{ij}}{x_{ai}} \text{ if } j \in B \quad (6)$$

matrix (N= [nij]mxn).

Stage 4: Determination of the Weighted Matrix

At this stage of the MARCOS Method, the normalized values calculated using equation (7) are weighted based on the weights of the criteria and a weighted normalized matrix is obtained.

$$v_{ij} = n_{ij} \cdot w_j \quad (7)$$

In the equation, w_j refers to the weighting of the j criterion.

Stage 5: Computation of the utility degree of alternatives K_i

$$K_i^- = \frac{S_i}{S_{aai}} \quad (8)$$

$$K_i^+ = \frac{S_i}{S_{ai}} \quad (9)$$

In the fifth step of the method, utility degrees of K_i alternatives are calculated separately for ideal and non-ideal alternatives as shown in equations (8) and equation (9).

$$f(K_i^-) = \frac{K_i^+}{K_i^+ + K_i^-} \quad (10)$$

$$f(K_i^+) = \frac{K_i^-}{K_i^+ + K_i^-} \quad (11)$$

Stage 6: Determination of Ideal and Worst Solution Utility Function of Alternatives

In the sixth step of the MARCOS Method, utility functions are calculated for the worst and most ideal solution for each alternative, using the utility degrees calculated for the K_i alternatives. For the worst solution, the utility function equation (10), for the most ideal solution, the operations specified in equation (11) are applied.

Stage 7: Determination of the utility function of alternatives $f(K_i)$

In the last step of the method, the utility function for each alternative is obtained after the operations specified in equation (10).

$$f(K_i) = \frac{K_i^+ + K_i^-}{1 + \frac{1 - f(K_i^+)}{f(K_i^+)} + \frac{1 - f(K_i^-)}{f(K_i^-)}} \quad (12)$$

$f(K_i)$: i alternative utility function

The best solution for the method; is the alternative with the maximum value of the $f(K_i)$ function being determined.

3. FINDINGS

In this part of the study, the most up-to-date 500 customer complaints of "getir, yemeksepeti, tiklagelsin and trendyol yemek" companies on the "sikayetvar.com" website are analyzed within the scope of the MARCOS Method explained in the methodology and the results obtained regarding the application are documented. In the classification of the related complaints, the application requirements of the method used in the research were taken into consideration and minimization-maximization targets were defined. All of the 13 criteria determined in the study were grouped through the evaluation of sikayetvar.com's customer complaints by the researcher and the data were analyzed within the scope of 13 criteria in total. Due to the fact that customer complaints are a component of consumer behavior and their effect on the decision-making process, every element that may be subject to a complaint constitutes a criterion. From this point of view, since each criterion can be perceived at different levels for different consumer groups and it is almost impossible to measure, criterion weights are accepted as equal in the study. The relevant criteria are shown in Table 1.

Table 1. Criteria and Criterion Objectives Used in the Evaluation Process

Criteria Number	Criteria	Criterion Objectives
K1	Number of solutions	Maximization
K2	The Average Satisfaction of the Last 1 Year	Maximization
K3	Number of visits in the last 30 days	Maximization
K4	Number of Complaints	Minimization
K5	Late Delivery Problems	Minimization
K6	The Order Does Not Arrive Despite Being Paid	Minimization
K7	Refund/Cancellation Problems	Minimization
K8	Incorrect/incomplete order delivery	Minimization
K9	Problems with Promotion	Minimization
K10	Software/Application Problems	Minimization
K11	Payment Problems	Minimization
K12	Customer Service/Courier Problems	Minimization
K13	Problems Related to the Protection of Personal Data	Minimization

To rank the alternatives using the MARCOS Method, the initial decision matrix must first be created. The initial decision matrix created for the data obtained using equality (1) is shown in Table 2.

Table 2. Initial Decision Matrix

	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13
Getir	320	1,4	13233	8618	73	127	53	127	48	1	20	46	6
Yemeksepeti	988	2,2	148274	9555	41	125	30	36	93	52	17	36	70
Tiklagelsin	113	1,7	14721	1905	48	130	136	39	25	20	50	49	3
Trendyol Yemek	244	1,6	30173	4698	44	111	83	122	45	11	17	52	15

The second stage of the method is to add ideal and anti-ideal solutions to the initial decision matrix and create an extended decision matrix. The extended matrix is prepared by using equality (2) as shown in Table 3.

Table 3. Extended Decision Matrix

	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13
Getir	320	1,4	13233	8618	73	127	53	127	48	1	20	46	6
Yemeksepeti	988	2,2	148274	9555	41	125	30	36	93	52	17	36	70
Tiklagelsin	113	1,7	14721	1905	48	130	136	39	25	20	50	49	3

Trendyol Yemek	244	1,6	30173	4698	44	111	83	122	45	11	17	52	15
AAI	113	1,4	13233	9555	73	130	136	127	93	52	50	52	70
AI	988	2,2	148274	1905	41	111	30	36	25	1	17	36	3

In the next stage of the method, the extended matrix is normalized using equality (5) and equality (6). The normalized extended matrix is shown in Table 4.

Table 4. Normalized Extended Decision Matrix

	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13
	Max	Max	Max	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Getir	0,324	0,636	0,089	0,221	0,562	0,874	0,566	0,283	0,521	1,000	0,850	0,783	0,500
Yemeksepeti	1,000	1,000	1,000	0,199	1,000	0,888	1,000	1,000	0,269	0,019	1,000	1,000	0,043
Tiklagelsin	0,114	0,773	0,099	1,000	0,854	0,854	0,221	0,923	1,000	0,050	0,340	0,735	1,000
Trendyol Yemek	0,247	0,727	0,203	0,405	0,932	1,000	0,361	0,295	0,556	0,091	1,000	0,692	0,200
AAI	0,114	0,636	0,089	0,199	0,562	0,854	0,221	0,283	0,269	0,019	0,340	0,692	0,043
AI	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

In the fourth stage of the method, a normalized matrix is obtained using the weights of the criteria and a weighted matrix is obtained. In the matrix created, the weights (w_j) related to the criteria were determined as equal (0.077) for each criterion. Equality (7) is used to create the weighted matrix. The weighted matrix created for the method is shown in Table 5.

Table 5. Weighted Decision Matrix

	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13
	Max	Max	Max	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Getir	0,025	0,049	0,007	0,017	0,043	0,067	0,044	0,022	0,040	0,077	0,065	0,060	0,038
Yemeksepeti	0,077	0,077	0,077	0,015	0,077	0,068	0,077	0,077	0,021	0,001	0,077	0,077	0,003
Tiklagelsin	0,009	0,059	0,008	0,077	0,066	0,066	0,017	0,071	0,077	0,004	0,026	0,057	0,077
Trendyol Yemek	0,019	0,056	0,016	0,031	0,072	0,077	0,028	0,023	0,043	0,007	0,077	0,053	0,015
AAI	0,009	0,049	0,007	0,015	0,043	0,066	0,017	0,022	0,021	0,001	0,026	0,053	0,003
AI	0,077	0,077	0,077	0,077	0,077	0,077	0,077	0,077	0,077	0,077	0,077	0,077	0,077

In the fifth and sixth stages of the MARCOS Method, the utility degrees of the K_i alternatives are equality (8) and equality (9); In the sixth stage, the utility functions are calculated using equality (10) and equality (11) for the worst and most ideal solution for each alternative, using the utility degrees calculated for the K_i alternatives. The utility function for alternatives is obtained by using equation (12). The utility degrees and the calculated utility functions of the method and the data for the ideal solution are shown in Table 6.

Table 6. Utility Function, Ideal Solutions, and MARCOS Method Results

	S_i	K_i^+	K_i^-	$f(K_i^+)$	$f(K_i^-)$	$f(K_i)$	Ranking
Getir	0,555	0,555	1,668	0,750	0,250	0,512	3
Yemeksepeti	0,724	0,724	2,179	0,750	0,250	0,669	1
Tiklagelsin	0,613	0,613	1,842	0,750	0,250	0,566	2
Tredyol Yemek	0,516	0,516	1,553	0,750	0,250	0,477	4
Aai	0,332						
Ai	1						

4. CONCLUSION

It can be said that in the modern marketing approach, which prioritizes customer dominance on a principled basis, the competition for products or services develops within the scope of customer orientation, so the competitiveness level of the enterprises in the market is affected by the customer presence and the management capacity for the relevant asset. Reflecting the customer-oriented perspective of relationship marketing efforts, customer relationship management is a marketing strategy used by businesses to develop a long-term and positive experience-based relationship with their customers. Positive customer experience ownership causes businesses to be preferred again by their customers and to the emergence of recommendation behavior. However, in the negative consequences of the relevant behavior, businesses have customer feedback called "complaints". The fact that customers convey their negative experiences to a very high number of individuals through today's developing communication tools leads to potential customer losses. For this reason, the concept of complaint management, which can be seen as a defensive marketing strategy, also creates an application area that is increasingly seen as valuable and focused on in terms of businesses. Receiving customer complaints and responding as soon as possible and ending this process

with positive experiences also show that a correct complaint management process is being undertaken. For this reason, complaints as customer feedback that may arise for any reason should be handled, evaluated, and used in customer communication promptly and systematically.

This study is prepared with the aim of compiling the customer complaints of the online food order companies, which are frequently used by the consumers as a part of the online consumption culture, on the website 'sikayetvar.com', and classifying the obtained complaints through the MARCOS Method, which is among the multi-criteria decision-making methods. During the related analysis process, the most recent 500 complaints before 06/06/2022 were compiled for each of the companies "getir, yemeksepeti, tıklagelsin, and trendyol yemek". The complaints obtained were evaluated within the scope of 13 different sub-criteria in total. Among the relevant criteria, three of them were analyzed by maximizing the positive aspects of the companies in complaint management, and the remaining ten were analyzed by minimizing the target and the weight of each criterion evaluated equally. As a result of the analysis, "Yemeksepeti" was found to be in the first place among the alternatives and was found to be more successful than other companies in complaint management processes. The second alternative was determined as "tıklagelish" and the third alternative was determined as "getir". The firm with the lowest value among the alternatives was found to be "trendyol yemek".

As a result, it is seen that the average satisfaction rate on "sikayetvar.com", the website where the research data of the companies operating in the field of online food ordering is provided, is quite low, the consumers have negative experiences about many components of the business processes of the companies, and the companies cannot provide sufficient satisfaction in the solution processes. It is proved by the presence of frequently repeated complaints that the concept of customer satisfaction, which is accepted as a principle by the modern marketing approach, is still not considered as a priority by the companies, and therefore they cannot prevent the rapid spread of negative experiences with potential customers through e-WOM. Therefore, to increase total consumer satisfaction in the market and to gain a competitive advantage, it is considered that it is necessary for companies to plan their complaint management processes with a customer-oriented perspective in line with the teachings of modern marketing and to adapt them to marketing communication processes immediately. In addition, the study analyzes customer complaints about online food ordering sites within a limited time frame and with a specific multi-criteria decision-making method. It is an issue that meaningful contributions can be made to the literature by using alternative methods in the criterion weighting process and a wider time range of customer complaints against companies in the sector.

AUTHOR DECLARATIONS

Declarations of Research and Publication Ethics: This study has been prepared in accordance with scientific research and publication ethics.

Ethics Committee Approval: Since this research does not include analyzes that require ethics committee approval, it does not require ethics committee approval.

Author Contributions: The author has done all the work alone.

Conflict of Interest: There is no conflict of interest arising from the study for the author or third parties.

REFERENCES

- Altıntaş, F. F. (2021). Akdeniz ülkelerinin destinasyon rekabetçilik performanslarının analizi: MAIRCA ve MARCOS yöntemleri ile bir uygulama. *Türk Turizm Araştırmaları Dergisi*, 5(3), 1833-1856.
- Álvarez, L. S., Casielles, R. V., & Martín, A. M. D. (2010). Analysis of the role of complaint management in the context of relationship marketing. *Journal of Marketing Management*, 27(1-2), 143-164.
- Arsu, T., & Ayçin, E. (2021). Evaluation of OECD countries with multi-criteria decision-making methods in terms of economic, social and environmental aspects. *Operational Research in Engineering Sciences: Theory and Applications*, 4(2), 55-78.
- Badi, I. & Pamucar, D. (2020). Supplier selection for steelmaking company by using combined Grey MARCOS methods. *Decision Making: Applications in Management and Engineering*, 3(2): 37-48.
- Bal, V. (2014). Online Satış Girişimcilerinin Karşılaştıkları Müşteri Şikayetlerinin Analizi. *Abant İzzet Baysal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 14(1), 59-74.
- Berger, P. D., & Nasr, N. I. (1998). Customer lifetime value: Marketing models and applications. *Journal Of Interactive Marketing*, 12(1), 17-30.
- Biswas, S. (2020). Measuring Performance of Healthcare Supply Chains in India: A Comparative Analysis of Multi-Criteria Decision Making Methods. *Decision Making: Applications in Management and Engineering*, 3(2), 162-189.
- Breitsohl, J., Khammash, M., & Griffiths, G. (2010). E-business complaint management: perceptions and perspectives of online credibility. *Journal of Enterprise Information Management*, 23(5), 653-660.
- Chattopadhyay, R., Chakraborty, S. & Chakraborty, S. (2020). An integrated D-MARCOS method for supplier selection in an iron and steel industry. *Decision Making: Applications in Management and Engineering*, 3(2): 49-69.

- Cho, Y., Im, I., Hiltz, R., and Fjermestad, J. (2002). An analysis of online customer complaints: implications for web complaint management, in *Proceedings of the 35th Annual Hawaii International Conference on System Sciences* (Big Island, HI: IEEE), 2308–2317.
- Çınaroğlu, E. (2021). CRITIC Temelli MARCOS Yöntemi ile Yenilikçi ve Girişimci Üniversite Analizi. *Journal of Entrepreneurship and Innovation Management*, 10(1), 111-133.
- Davidow, M., & Dacin, P. A. (1997). Understanding and influencing consumer complaint behavior: improving organizational complaint management. *ACR North American Advances*, 24(1): 450-456.
- Demirel, Y. (2006). *Müşteri İlişkileri Yönetimi ve Bilgi Paylaşımı*. İstanbul: IQ Kültür Sanat Yayıncılık.
- Filip, A. (2013). Complaint management: A customer satisfaction learning process. *Procedia-Social and Behavioral Sciences*, 93, 271-275.
- Fornell, C., & Wernerfelt, B. (1988). A model for customer complaint management. *Marketing Science*, 7(3), 287-298.
- Gençtürk, M., Senal, S., & Aksoy, E. (2021). COVID-19 Pandemisinin Katılım Bankaları Üzerine Etkilerinin Bütünlük CRITIC-MARCOS Yöntemi ile İncelenmesi. *Muhasebe ve Finansman Dergisi*, (92), 139-160.
- Gökdeniz, İ., Bozaci, İ., & Karakaya, E. (2011). Şikâyet Yönetim Süreci Sonrası Memnuniyeti Etkileyen Faktörler Üzerine Uygulamalı Bir Araştırma. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, (26), 173-185.
- Gupta, S., Hanssens, D., Hardie, B., Kahn, W., Kumar, V., Lin, N., & Sriram, S. (2006). Modeling customer lifetime value. *Journal of Service Research*, 9(2), 139-155.
- Johnston, R., & Mehra, S. (2002). Best-practice complaint management. *Academy of Management Perspectives*, 16(4), 145-154.
- Johnston, R. (2001). Linking complaint management to profit. *International Journal Of Service Industry Management*, 12(1), 60-69.
- Kabakçı, D., & Köker, N. E. (2017). Kurumsal iletişim sürecindeki rolü açısından online şikâyetlerin önemi. *Akdeniz Üniversitesi İletişim Fakültesi Dergisi*, (27), 46-77.
- Kocabaş, İ. (2022). Covid-19 Döneminde E-Şikâyet Yönetimi Perspektifinden Müşterilerin Çevrimiçi Alışverişte Karşılaştıkları Sorunlar. *Selçuk İletişim*, 15(1), 323-359.
- Kütük, A. (2021). Dijital Seyahat Aracılarında E-Müşteri Tatmini ve E-Şikâyetlere Yönelik Bir İçerik Analizi. *Türk Turizm Araştırmaları Dergisi*, 5(1), 407-421.
- Lee, C., & Hur, Y. (2019). Service quality and complaint management influence fan satisfaction and team identification. *Social Behavior and Personality: An International Journal*, 47(2), 1-15.
- Madenoğlu, F. S. (2020). Dengeli Puan Kart-Ahp-Marcos Yöntemlerine Dayalı Tedarikçi Seçimi. *Economics Business and Organization Research*, 2(2), 99-120.
- Maurer, C., & Schaich, S. (2011). Online customer reviews used as complaint management tool. In R. Law, M. Fuchs, & F. Ricci (Eds.). *Information and communication technologies in tourism*, (pp. 499–511). Springer.
- Özdağoğlu, A., Keleş, M. K., & Işildak, B. (2021). Dünyanın En İşlek Havalimanlarının Pırcia-E, Smart ve Marcos Yöntemleri ile Değerlendirilmesi. *Erciyes Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, (58), 333-352.
- Pajo, A. & Selvi, M. S. (2019). Akıllı Telefonlara İlişkin Şikâyetlerin Analizi: Sıkayetvar.Com Sitesi Örneği. *Ejovoc (Electronic Journal of Vocational Colleges)*, 9(1), 34-43.
- Pala, O. (2021). Idocriw ve Marcos Temelli Bist Ulaştırma İşletmelerinin Finansal Performans Analizi. *Kafkas Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 12(23), 263-294.
- Puşka, A., Stević, Ž. & Stojanović, I. (2021). Selection of sustainable suppliers using the fuzzy MARCOS method. *Current Chinese Science*, 1(1), 1-12.
- Puşka, A., Stojanovic, I., Maksimovic, A., & Osmanovic, N. (2020). Project management software evaluation by using the Measurement of Alternatives and Ranking According to Compromise Solution (MARCOS) method. *Operational Research in Engineering Sciences: Theory and Applications*, 3(1), 89-102.
- Selvi, M. S. (2007). *İlişkisel Pazarlama, Stratejiler ve Teknikler*, 1. Baskı, Ankara: Detay Yayıncılık.
- Stević, Ž., Pamučar, D., Puška, A. & Chatterjee, P. (2020a). Sustainable supplier selection in healthcare industries using a new MCDM method: Measurement of alternatives and ranking according to Compromise solution (MARCOS). *Computers & Industrial Engineering*, 140, 106-231.
- Stević, Ž., Tanackov, I. & Subotić, M. (2020b), Evaluation of Road Sections in Order Assessment of Traffic Risk: Integrated FUCOM-MARCOS Model. *1st International Conference on Challenges and New Solutions in Industrial Engineering and Management and Accounting*, 1-14.
- Şantaş, F., Şantaş, G. & Erigüç, G. (2019). Türkiye’de Özel Hastanelere ve Devlet Hastanelerine Yönelik Elektronik Şikâyetlerin İncelenmesi. *Uluslararası Sağlık Yönetimi ve Stratejileri Araştırma Dergisi*, 5(3), 291-301.
- Tokay Argan, M. (2014). E-Şikâyetle ilgili tanımlayıcı bir çalışma: şikâyet forumu olarak bir web sitesinin sosyal ağ analizi. *Journal of Internet Applications and Management*, 5(1), 49-66.
- Tuş, A., & Aytac Adalı, E. (2021). İnternet servisi sağlayıcı seçim probleminin çözümünde bulanık sıralama ağırlık tabanlı bulanık MARCOS yöntemi, *Politeknik Dergisi*, 1(1), 1-13.
- Ulutaş, A., Karabasevic, D., Popovic, G., Stanujkic, D., Nguyen, P. T. & Karaköy, Ç. (2020). Development of a novel integrated CCSD-ITARA-MARCOS decision-making approach for stackers selection in a logistics system. *Mathematics*, 8(10), 1672.
- Ünal, A. (2019). Otel Müşterilerinin E-Şikâyetlerinin Sınıflandırılmasına Yönelik Bir Çalışma. *Uluslararası Yönetim İktisat ve İşletme Dergisi*, 15(2), 561-581.
- Yılmaz E. S. & Bal F. (2022). Havayolu firmalarının kurumsal itibarlarının “şikâyetvar” sitesi üzerinden rç modeli ile incelenmesi. *Gümüşhane Üniversitesi Sosyal Bilimler Dergisi*, 13(1), 436-449.

