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Determination of Thermal Tourism Facility Selection Criteria Weights by the BWM Method, One of the Multi-Criteria Decision Making Techniques

Çok Kriterli Karar Verme Tekniklerinden Bwm Yöntemi İle Termal Turizm Tesisi Seçim Kriter Ağırlıklarının Belirlenmesi

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Abstract

Thermal tourism is a type of tourism carried out under natural conditions that provides treatment services with mineral-rich underground waters that come out of the ground at a certain temperature, as well as food and beverage, transportation, entertainment, and hospitality services in a way that meets the expectations and needs of consumers. Due to its geopolitical position, Turkey is in high demand in the international arena in terms of thermal health tourism within the framework of rapid transformation and development in the health sector in recent years, especially with its natural spas and thermal treatment opportunities. Thermal health tourism is of great importance for a country with great potential in terms of thermal tourism, such as Turkey, which ranks first in Europe and seventh in the world with its thermal resources, in terms of increasing tourism revenues and gaining global competitiveness. In this study, it is aimed at determining the criteria that will affect the preference of thermal tourism facilities by tourists and the weights of these criteria using the BWM Method, which is one of the multi-criteria decision-making techniques. In this context, the findings obtained as a result of the study will contribute to both the literature and the thermal health tourism sector in terms of determining the criteria for the thermal facility preferences of tourists.

Keywords: Health Tourism, Thermal Tourism, Multi-Criteria Decision-Making Techniques, BWM Method

Jel Codes: L22, L83, M31, D81

Özet

Termal turizm; tüketicilerin beklenti ve ihtiyaçlarını karşılayacak şekilde yeme-içme, ulaşım, eğlence ve konaklama hizmetlerinin yanı sıra, yer altından belirli bir sıcaklıkta çıkan ve mineral yönünden zengin yeraltı suları ile tedavi hizmetlerinin de sunulmasını sağlayan ve doğal şartlar altında gerçekleştirilen bir turizm türüdür. Türkiye jeopolitik konumu nedeni ile sahip olduğu özellikle doğal kaplıcaları ve termal tedavi imkanları ile son yıllarda sağlık sektöründe yaşanan hızlı dönüşüm ve gelişim çerçevesinde, termel sağlık turizmi açısından uluslararası alanda yoğun talep görmektedir. Sahip olduğu termal kaynakları ile Avrupa'da birinci, dünyada ise yedinci sırada yer alan Türkiye gibi termal turizm açısından büyük potansiyele sahip bir ülke için turizm gelirlerin arttırılarak küresel rekabet gücü kazanılabilmesi açısından termal sağlık turizmi büyük önem arz etmektedir. Bu çalışmada termal turizm tesislerinin turistler tarafından tercih edilmesini etkileyecek olan kriterlerin ve bu kriterlere ilişkin ağırlıkların çok kriterli karar verme tekniklerinden BWM Yöntemi ile belirlenmesi amaçlanmaktadır. Bu kapsamda çalışma sonucunda elde edilen bulgular, turistlerin termal tesis tercihlerindeki kriterlerin tespit edilebilmesi açısından hem literatüre hem de termal sağlık turizm sektörüne katkı sağlayacaktır.

Anahtar Kelimeler: Sağlık Turizmi Termal Turizm, Çok Kriterli Karar Verme Teknikleri, BWM Yöntemi

Jel Kodu: L22, L83, M31, D81

Introduction

The rapid increase in demand, changes in customer expectations and needs, and the negative consequences of mass tourism activities based on the sea-sand-sun trio in recent years in the tourism sector, which is the largest industry in the world and developed rapidly throughout the 20th century, necessitated diversification in touristic products. The concept of alternative tourism, which has emerged in this context, has become increasingly important. Impro-

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vement of living standards, incomes, and social rights of individuals: factors such as distress and stress brought by urbanization and business life cause people to prefer to have different touristic experiences instead of performing tourism activities that only cover summer periods. In this context, alternative tourism refers to tourism that is based on ecological, economic, and socio-cultural sustainability, is compatible with natural, social, and cultural values, and offers a variety of products to meet the expectations and needs of consumers who are in search of something different from coastal tourism activities.

The goal of alternative tourism is to meet changing tourist demands, provide customer satisfaction, and establish a competitive advantage in this field by preventing the destruction of natural and cultural values brought about by mass tourism. In this context, while there are many alternative tourism types created in line with different requests and needs, the common feature of all these types is to make the social, cultural, historical, and natural assets of a region more accessible to tourists. Mass tourism consisting of the sea-sand-sun trio is a necessity. In order to expand the tourism market and increase its contribution to the economy with the income obtained, it is of great importance to develop alternative tourism within the framework of the tourism resources owned. According to this study, the goal is to find the factors that people will choose between thermal tourism facilities, which are looked at as an alternative type of tourism, and how important these factors are using the BWM Method, a multi-criteria decision-making tool.

Health tourism, which has been practiced since ancient times, is defined as the travel of people to another region or country due to the health problems they experience, including thermal health tourism, medical tourism, and elderly tourism. Within the framework of the rapid transformation and development experienced, it is in high demand in terms of health tourism in the international arena. Thermal health tourism is of great importance for a country with great potential in terms of thermal tourism, such as Turkey, which ranks first in Europe and seventh in the world in terms of thermal resources, in terms of gaining competitive power by increasing the revenues obtained from the tourism sector. In this study, it is aimed at determining the criteria that will affect the preference of thermal tourism facilities by tourists and the weights of these criteria using the BWM Method, which is one of the multi-criteria decision-making techniques. In the study, nine criteria and sub-criteria that will be effective in the thermal tourism facility selection of tourists were determined as a result of a literature review and interviews with three academicians who are experts in their fields, and a decision-making criteria system was created. In this context, the findings obtained as a result of the study will contribute to both the literature and the thermal health tourism sector in terms of determining the criteria for the thermal facility preferences of tourists.

Literature Review

1. Health Tourism as an Alternative Tourism Type

The philosophy of sustainability, which aims to use resources sustainably to meet the needs of future generations and ensure environmental, social, and economic balance, is increasing its importance day by day in terms of protecting both the scarce resources in nature and the welfare levels of societies (Sachs, 2015; Fan et al., 2023). The basis of the concept of sustainability is the idea of meeting people's current needs as well as minimizing environmental, social, and economic damages by using scarce resources in a correct and balanced way and leaving a livable ecosystem to future generations that will meet their needs (Isaac and Eid, 2019; Moyer and Hedden, 2020). In this context, the concept of sustainability, which has become an important target and competitive element for all sectors, has also created significant effects on tourism, which is the largest industry in the world (Oriade and Evans, 2011). Sustainability in tourism means the balanced management of environmental, social, and economic factors and the provision of healthy food for future generations. Protecting cultural heritage by minimizing the negative effects of tourism, such as environmental pollution, natural resource depletion, and cultural homogenization, ensuring the participation of local people in tourism activities, and sustainable tourism for local economic development have led to the need for new alternatives in touristic products (Dorin-Paul, 2013; Stănciulescu and Diaconescu, 2015). In addition to sustainability, the concept of alternative tourism has emerged with the influence of the search for different experiences in touristic demands as a result of the saturation of mass tourism as the sea-sand-sun trio (Theng et al., 2015; Jovicic, 2016).

Alternative tourism focuses on natural, cultural, or adventure-based destinations that are different from typical tourist routes and activities. It gives people a chance to have unique experiences in a world where consumer needs and expectations are changing, and small-scale recreational activities are held to lessen the negative effects of mass tourism (Narvaez, 2014; Theng et al., 2015; Yldza and Gürha, 2016). Alternative tourism is gaining prominence in the tourism industry, with new market segments created by its types, which include nature tourism, cultural tourism, adventure tourism, gastronomy tourism, religious tourism, and sports tourism (Bac, 2014; Koliouska and Andreopoulos, 2023). Health tourism is another alternative tourism variety that stands out and accounts for a sizeable portion of the market.

(Ozsar and Karatana, 2013; Hritz et al., 2014; Sun et al., 2022) Health tourism is defined as the mobility of individuals between geographical locations in order to receive protective, therapeutic, rehabilitative, or health-promoting services while utilizing all elements of tourism (travel agencies, airlines, hotels, etc.). According to a different definition, health tourism is defined as individuals traveling to a different region or country due to their health problems, with ancient examples including thermal tourism, spa tourism, and medical tourism (Draghic et al., 2016; Nadezhda, 2022). Health tourism is generally preferred by people seeking better quality, faster access, or more affordable health services in a country (Smith and Puczkó, 2015; Ozkan, 2019).

The fact that tourists participating in thermal health tourism, medical tourism, elderly tourism, disabled tourism, and health tourism mobility have treatment purposes as well as holiday purposes increases the quality expectations of the service offered and also increases the added value they create (Hall, 2011; Faroldi et al., 2019). As a consequence of the demand for diagnosis, treatment, and rehabilitation services, health tourism has emerged as a type of tourism that enables the expansion of health institutions by utilizing the growing international patient potential (Lunt et al., 2011; Gümüş and Polat, 2012; Shaygani et al., 2023). Health tourism seeks to provide patients and their families with medical service options that will ensure their comfort. Since health tourism has a structure that corresponds to all seasons, it is designed to make more efficient use of facilities, distinguishing it from "seasonal" tourism activities. Since there is no season for maladies and treatment-seeking, if health tourism activities are determined accurately and implemented with proper planning, countries can realize enormous economic benefits from their unique tourism potential (Kaygısız, 2021). Health tourism also aids in the treatment of a variety of ailments. It contributes to the total national wealth by promoting domestic and international tourism and generating a variety of added values. The significance of health tourism is directly related to human health (Bulut and Şengül, 2019; Gümüş and Polat, 2012). As a consequence of the high level of education and welfare in developed nations, the health of the population is dependent on numerous factors, such as the high wages of the health workforce. Providing services is an expensive endeavor. In nations where the health of an aging population has improved, the need for health expenditures and the proportion of health expenditures are rising daily (Henama, 2014; Göçer and Aydn, 2016). In addition to the rising costs of these social security institutions, social security institutions and private insurance institutions are preparing package agreements with health tourism companies in countries with high-quality medical services in order to address these issues. By entering into agreements, efforts are being made to procure health services at a reduced cost (Lee and Kim, 2015).

2. Thermal Tourism

Thermal tourism, which is considered within the scope of health tourism, is travel to thermal spas for health and healing purposes, whose origins date back to the Ancient Greeks and Romans (Talesca et al., 2015; Brandão et al., 2021). According to World Tourism Organization data, thermal tourism has become a subject of increasing interest as one of the most important alternative tourism types of the 21st century (Tuna, 2019). Thermal tourism brings together natural thermal resources and health services to meet people's needs for both holidaying and improving their health. While people's living standards change as a result of environmental, economic, social, and cultural developments, more efficient use of natural resources has become an important element in protecting human health in line with sustainable goals. Thermal tourism helps people treat health problems through spas and health facilities visited for health and rehabilitation purposes, while also focusing on mental and emotional health. It offers solutions to people's increasing health problems due to their busy work schedules and stressful lifestyles. The minerals, natural heat, and hydrotherapy methods contained in thermal waters provide a number of benefits, such as reducing stress, relaxation, improving skin health, and treating muscle-joint disorders. While the natural environment and peaceful atmosphere offer tourists the opportunity to relax and renew, spa services offered in thermal facilities provide mental and emotional relaxation with activities such as massage, meditation, and yoga (Smith and Puczkó, 2015; Pereira et al., 2023).

Thermal tourism is a process in which thermal waters are used for entertainment and recreation purposes, as well as various methods such as thermomineral water baths, drinking, inhalation, and mud baths, as well as cure (treatment) practices by combining supportive treatments such as climate cure, physical therapy, rehabilitation, exercise, psychotherapy, and diet. It is a type of alternative tourism (www.kulturturizm.gov.tr). While thermal tourism serves both health tourism and rest and relaxation tourism, it also appeals to different tourist groups, increasing the diversity of destinations and positively affecting the local economy. Thermal health tourism helps local businesses grow and increase employment through the expenditures brought by tourists to the region (Çağlar and Bulgan, 2016; Dini and Pencarelli, 2022). At the same time, protecting the natural and cultural heritage in thermal regions and promoting sustainable tourism practices is also an important factor (Zengin and Eker, 2016; Fertas et al., 2022). Another factor underlying the development of thermal tourism is the move away from chemical treatment

methods in modern medicine due to the increase in people's consciousness levels. In particular, the spread of thermal tourism over twelve seasons and the length of the thermal treatment period increase the demand for the sector (Özdipçiner, 2018). As a result, the benefits of thermal tourism to the sector in terms of competitive advantage are that it eliminates the seasonality of tourism, provides high occupancy rates in hospitality establishments, diversifies tourism and enters different target markets, creates opportunities for regions with touristic development potential, and contributes to employment (UNWTO, 2018; Gonçalves and Guerra, 2019).

Mineral waters, rich in minerals, are used for relaxation, staying fit, healing, etc. Thermal tourism, as a set of relationships resulting from its use for various purposes (Şahin and Tuzlukaya, 2017), is gaining value and increasing its capacity day by day. However, since the existence of thermal tourism in a country depends on having a natural infrastructure, not every country can benefit from the competitive advantages created by thermal tourism in the field of alternative tourism (İlban and Kaşli, 2009; Siner and Torun, 2020). Germany, Italy, France, Austria, Hungary, and Turkey, which have rich thermal resources from which healing water, steam, and mud with beneficial minerals come to the surface at a certain temperature, are the most visited thermal tourism destinations in the world (Rodnic et al., 2009). Another important element of being successful in thermal tourism is that, in addition to having natural thermal resources, the facilities where thermal tourism services will be offered must provide quality service to meet the expectations and needs of tourists. Thermal facilities: these are the facilities where, in addition to the hospitality, entertainment, food, and beverage services offered to customers in tourism facilities, underground and aboveground treatment elements are offered in treatment and recreation units in spas, springs, and cure centers (Mutlu and Kabakulak, 2018). The features of thermal facilities can be listed as follows (Aslan, 1992; Gençay, 2010; İlker, 2012; Mrčela et al., 2015; Ayaz and Dağ, 2017; Baytok and Soybalı, 2018; Özdipçiner, 2018; Çılgınoğlu and Aytuğar, 2021):

- The location of the establishment is geographically different.
- These are businesses that should have rich recreational aspects.
- These are businesses that are in harmony with medical institutions and organizations and require expertise.
- They are businesses that combine treatment and holiday concepts.
- There is a perception of attractive investment with high profitability in thermal tourism.
- They are businesses with high customer diversity,
- They are businesses that can be compatible with other types of tourism.
- Hospitality rooms are businesses with various features.

Methodology

In this research, it is aimed to determine the criteria that will affect the preference of thermal tourism facilities, which are evaluated within the scope of health tourism as an alternative tourism type, and the weights of these criteria by the BWM Method, which is one of the multi-criteria decision-making techniques. Decision-making, which aims to permanently allocate scarce resources for the solution of problems encountered in daily life, refers to the process of determining and choosing an alternative among many alternatives (Demir and Gümüşoğlu, 2009; Çakır and Can, 2019). Criteria, which may vary depending on the situation, play an important role in the decision-making process, where individuals aim to choose the most rational way to be followed in order to maximize the benefit (Chatterjee and Chakraborty, 2012; Dalbudak and Rençber, 2022). In this context, multi-criteria decision-making methods are used in the evaluation of criteria in the decision-making process (Koca and Akçakaya, 2021).

Decision-making methods express a process in which values are assigned to alternatives in order to choose the most rational choice among more than one alternative at the same time. Multi-criteria decision-making methods have found a wide application area among the decision-making techniques due to their strong logic structure (Güneş and Umarusman, 2003; Meltem Karaatlı et al., 2015).In the application of multi-criteria decision-making techniques, first of all, the relevant criteria and alternatives, which are defined as the rules, measures, and standards that guide decision-making, are determined.After the numerical measurements of the relative importance of the effects of the relevant criteria on the alternatives are determined, the numerical evaluation process is carried out in order to determine the order of the alternatives at the last stage (Mulliner et al., 2013; Aslan, 2017).

The selection of weights and the appropriate model, as well as the degree of importance given to the criteria, are of great importance in the multi-criteria decision-making process (Demir and Bircan, 2020). Although there are many methods for weight calculation of criteria, analytical hierarchy process (AHP) (Çakırlı and Ulu, 2023; Sivakumar et al., 2022), analytical network process (ANP) (Gür and Eren, 2016; Cheng et al., 2020), The Decision Making Trial and Evaluation Laboratory (DEMATEL) (Birgün and Ulu 2021; Ulu and Şahin 2021) criteria determination of importance of criteria through correlations (CRITIC) (Peng et al., 2021; Ersoy, 2022), step-by-step weight

evaluation ratio analysis (SWARA) (Hashemkhani Zolfani et al., 2018; Ulu et al., 2022), and full consistency method (FUCOM) (Badi et al., 2022) are among the commonly used multi-criteria decision-making methods.In this study, the Best-Worst Method (BWM) (Ulu et al., 2022) was used as a fairly new multi-criteria decision-making method in the literature.

Best Worst Method (BWM)

The basis of the BWM method proposed by Rezaei in 2015 is based on the systematic comparison of two criteria with each other (Rezaei, 2016; Moslem et al., 2020) Although the BWM method is similar to the AHP method, fewer pairwise comparisons compared to AHP ensure that reliable results can be obtained with higher consistency in these pairwise In fact, in the BWM method, which was made to get rid of the differences in consistency ratios caused by the Analytical Hierarchy Process (AHP) method's many pairwise comparisons, pairwise comparisons are made after decision makers choose the best and worst criteria (Mou et al., 2016; Mi and Liao, 2019; Tanriverdi et al., 2022).comparisons (Rezaei, 2015; Yucesan et al., 2019; Çalık, 2021). These pairwise comparisons are: pairwise comparisons between the best criterion and other criteria; and pairwise comparisons between the worst criterion and other criteria. Then, the decision problem, formulated as a constrained objective optimization problem, is solved to determine the weights of the different criteria. The weights of the alternatives according to different criteria are also found in the same way (Rezaei, 2015; Ecer, 2020; Ulu et al., 2022; Karakış, 2022; Aghaloo et al., 2023). The application steps of the BWM method are listed below (Rezaei, 2015; Ulu et al., 2022):

Step 1: According to the research topic, a reasonable decision-making criteria system should be established that can reflect the performance of different alternatives. Let's say that if there are n criteria in the decision-making criteria system, {C1, C2,..., Cn} is determined.

Step 2: The best criterion and the worst criterion are determined.

Step 3: Using the 1–9 scale, choose the best criterion based on all criteria. A scale of 1–9 indicates the importance of the best criterion over other criteria. If the best criterion is as important as the selected criterion, the preference of the best criterion according to this chosen criterion is given a value of 1. If the best criterion is absolutely important to the chosen criterion, it should be assigned a 9 according to the chosen criterion. The superiority vector (AB) of the best criterion over other criteria is formed as in Equation 1.

AB = (aB1, aB2, … , aBn) (1)

Step 4: Determine the preference of all criteria over the worst criterion using a scale of 1–9. It should be done like step 3. The superiority vector (AW) of the worst criterion over other criteria is created as in Equation 2.

AW = (a1w, a2w, … , anw) (2)

Step 5: In determining the optimal weights for the criteria, the maximum absolute difference for all Js should be minimized. Therefore, at first $|wB - aBjwj|$ and $|wj - ajWwW|$ A linear programming model that maximizes and minimizes the differences should be created. To create the linear programming model, the problem is first represented as a min-max model as shoEquationsuation (3-5).

$$\min \max_j \{|wB - aBjwj|, |wj - ajwww|\} \quad (3)$$

$$\sum jwj = 1 \quad (4)$$

$$wj \geq 0 \quad \text{for all j's} \quad (5)$$

The min-max model obtained is converted into a linear programming model as given in Equations (6–10).

$$min\ \xi \quad (6)$$

$$|wB - aBjwj| \leq \xi \quad \text{for all j's} \quad (7)$$

$$|wj - ajwwww| \leq \xi \quad \text{for all j} \quad (8)$$

$$\sum jwj = 1 \quad (9)$$

$$wj \geq 1 \quad \text{for all j's} \quad (10)$$

By solving the linear programming model in Equation (6–10), the optimal criterion weights ($w1$, $w2$, … , wn) and the ξ value used to calculate the consistency ratio are reached.

Step 6: It is calculated to check whether the results are reliable and the consistency of comparisons. The consistency index is given in Table 1.

Table 1. Consistency Index Values for BWM

aBW	1	2	3	4	5
TE	0,00	0,44	1,00	1,63	2,30
aBW	6	7	8	9	
TE	3,00	3,73	4,47	5,23	

Consistency Ratio = ξ /Consistency Index Value (11)

As the consistency ratio approaches one, the consistency decreases, and as it approaches zero, the consistency increases.

Application

In the study, the BWM method was chosen especially to evaluate the factors affecting the choice of a thermal facility. The steps in choosing the BWM method are based on a simple algorithm, and it is a powerful criterion weighting method. The BWM method has a subjective effect on the value of the

final weights according to the decision-makers best and worst criteria. It makes comparisons where n is the number of criteria (2n-3) and uses a 1–9 pairwise comparison scale. Reliability confirmation of the weight vector obtained by calculating the consistency ratio is done.

In this case, the study used a literature review and interviews with three academics who are experts in their fields to come up with nine criteria and sub-criteria that will help tourists choose a thermal tourism facility (Step 1). The criteria were determined in line with the relevant literature review and the opinions of expert academicians (Table 2). Quality of hospitality service at the thermal facility, Quality of Health Services at the Thermal Facility, Geographical Features of the Region Where the Thermal Facility is Located Cultural and historical attractions of the region where the thermal facility is located, Opportunities for the Auxiliary Services of the Region where the Thermal Facility is Located Price for the service received from the thermal facility, The Region and the Facility Transportation Facilities for the Thermal Facility are in the form of Perception of Security for the Region Where the Thermal Facility is Located and Touristic Activities in the Region of the Thermal Facility (Parasuraman et al., 1985; Parasuraman, 1998; Buhalis, 2000; Sandıkçı and Gürpınar; 2008; Koroma, 2011; Payam, 2015; Mrčela et al., 2015; Ayaz and Dağ, 2017; Timur, 2018; Republic of Turkey Ministry of Health, 2018; Ceylan, 2019; Kılıcı et al., 2020; Çılgınoğlu and Aytuğar, 2021; Yalman, 2021; Ön Esen and Bahar , 2021; Çapar et al., 2021).

Table 2. Main Criteria And Their Explanations

No	Main Criteria	Explanations (Sub-Criteria)
1	Quality of Hospitality Service of Thermal Facility (C1)	Quality of Hospitality Service of Thermal Facility
		Reliability
		Responsiveness
		Assurance
		Empathy
2	Quality of Health Services of Thermal Facility (C2)	Sufficient physical infrastructure
		Chemical and physical properties of thermal water
		Protection of environmental factors
		Provision of specialist physicians, physical therapists, and nur-ses
		Using modern medical technologies
		Ensuring ethical values and data privacy
		Providing easily accessible health services
		Providing different health services for thermal tourism (such as climate therapy, hydrotherapy, diet therapy, mud therapy, and inhalation therapy) in facilities
		Involving sports and physical activities
		Providing basic conventional diagnostic facilities
		There is a natural thermal pool at the facility
		Use of technology in service delivery
		Finding treatment protocols in accordance with international standards and providing patients with adequate information about these protocols
		Making the necessary agreements in order to meet the country-specific expectations of overseas health insurance
3	Geographical Features of the Region where the Thermal Facility is Located (C3)	Climate
		Lakes, Rivers, Seas
		Mountainous Areas

4	Cultural and Historical Attractions of the Region where the Thermal Facility is Located (C4)	The attractiveness of cultural riches,
		Attractiveness of historical riches
5	Auxiliary Services Opportunities in the Region Where the Thermal Facility is Located (C5)	Banks,
		Telecommunications services
		Postal,newsagents,
		Hospitals, etc., healthcare organizations
6	Price for the service received from the thermal facility (C6)	Price for Hospitality Service
		Price for thermal services
7	Transportation Opportunities for the Region and the Facility of the Thermal Facility (C7)	All transportation systems consisting of airlines, maritime roads
		Terminals and tools
8	Security Perception of the Region Where the Thermal Facility is Located (C8)	Crime
		Terrorism
		War and political instability,
		Health concerns,
		Natural disasters.
9	Touristic Activities in the Region of the Thermal Facility (C9)	Entertainment Centers
		Shopping malls
		Festivals, Events,
		Recreation Facilities

Referance: Prepared by the author

In order to calculate the weights of these determined criteria within the framework of the BMW method, interviews were held with 8 decision makers who are experts in the field of thermal health tourism (Step 2, Step 3, Step 4).

Findings and Interpretation

The criteria were determined and presented in Table 2. Then, the worst (least important or least desirable) criterion and the best (most important or most desired) criterion were determined by expert opinion and presented in Table 3.

Tablo 3. Best And Worst Criteria

Best Criterion	C2
Worst Criterion	C3

It is presented in Table 4. using a pairwise comparison scale between 1 and 9 to determine the priority of the best and worst criteria.

Table 4. Pairwise Comparison

Prioritization of other criteria over the worst criteria	C2	Prioritization of other criteria over the worst criteria	C3
C2	1	C2	8
C1	1	C1	7
C7	2	C7	5
C6	3	C6	4
C5	3	C5	4
C9	5	C9	3
C8	5	C8	3
C4	6	C4	2
C3	8	C3	1

To determine the optimal weights for the criteria, the maximum absolute difference for all j's should be minimized. For this reason, first of all $|wB - aBjwj|$

and |*wj* – *aj*W*w*W| A linear programming model that minimizes the maximum of differences should be created. This model was obtained using Excel SOLVER and presented in Figure 1.

Figure 1. BWM Excel Solver Solution

Select the Best	2								
Select the Worst	3								
Best to Others	2	1	7	6	5	9	8	4	3
2	1	1	2	3	3	5	5	6	8
Others to the Worst	3								
2	8								
1	7								
7	5								
6	4								
5	4								
9	3								
8	3								
4	2								
3	1								
Weights	2	1	7	6	5	9	8	4	3
	0,254717	0,2264151	0,1415094	0,0943396	0,0943396	0,0566038	0,0566038	0,0471698	0,0283019
Ksi*	0,0283019								

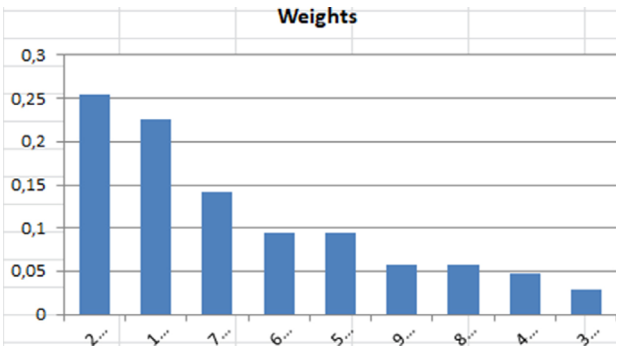
Thermal facility criterion weights are given in Table 5.

Tablo 5. Criterion Weights

Criterion	Weight
C2	0,255
C1	0,227
C7	0,142
C6	0,095
C5	0,095
C9	0,057
C8	0,057
C4	0,048
C3	0,029

The appearance of the weights is presented in Figure 2.

Figure 2. Criterion Weights



For thermal facility criterion weights, 9 criteria were used and 15 comparisons from (2n–3) were made, and each of them was included in the model as linear programming constraints. The consistency ratio was calculated with the help of the formula in equation 11 and found to be 0.019. Since this value is 0.028<0.1, it can be interpreted that the results are reliable and the comparisons are consistent.

In the multi-expert view, the above procedures are performed for each expert. The net weights of the criteria are found by taking the average of the weights found by each expert.

Conclusion and Recommendations

Thermal tourism, which emerged as a result of tourists moving to thermal resources to get treatment, benefit from cure activities, have fun, and participate in recreational activities, is considered the use of underground mineral waters with special characteristics for drinking and bathing purposes (Şimşek, 2003: 2) and the touristic activity at the facilities for the use of these waters. Thermal tourism involves the establishment of new friendships between people, the development of destinations for developing inter-regional relations, and providing healthy life services to people. It includes many gains (Karabacak, 2019). In the 2023 Action Plan, thermal development of tourism, efficient use of the country's resources, and thermal objectives such as increasing the facilities and increasing the bed capacity to 500 thousand were determined. (https://yigm.ktb.gov.tr). Increasing investments in thermal tourism around the world will ensure a high share in the field. Only the sun,

sand, and sea The fact that it does not remain sterile with its trilogy, which gives the opportunity to make alternative tourism types in our country, The existence of areas leads the operators to have different thoughts and pursuits (Amenguel et al., 2012). For this purpose, regions with thermal tourism potential should increase the demand by twelve months. With the idea of spreading the word, tourism activities in the country will gain significant momentum (Sandıkçı, 2008). It is known that thermal spring waters have many health benefits (Boyraz and Cetin, 2019). These springs, which are popularly called "healing waters", can be drunk. Drinking or non-drinking for those who can use it, and for those that can be used externally: "Kaynarca, hamam, hot spring, entrance, Ilisu, Names such as "cermik" are given. In the tourism literature, "thermal center" or "spacenter" (Karademir et al., 2019).

Goods in thermal tourism enterprises and ensuring the satisfaction of the customers who purchase the services are proportional. Customer satisfaction is the effect after the use of the good or service. (Cadotte et al., 1987; Tam, 2011). For this reason, knowing customer expectations is of great importance in terms of ensuring satisfaction (Burucuoğlu, 2011). To satisfy the customer and meet their expectations, today's technology requires the hotels to work much more devotedly (Sandıkçı, 2008). Thermal tourism-oriented hotels, determining the needs, expectations, and wishes of the customers and meeting their satisfaction resulting from it by increasing the profitability rates of the hotels and contributing to the country's economy. national and international tourism in hotels that will provide added value as well as thermal springs. It will allow it to be alive throughout (Olcay and Giritlioğlu, 2014).

In the study, the BWM method was chosen especially to evaluate the factors affecting the choice of a thermal facility. The steps in choosing the BWM method are based on a simple algorithm, and it is a powerful criterion weighting method. The BWM method has a subjective effect on the value of the final weights according to the decision-makers best and worst criteria. It makes comparisons where n is the number of criteria (2n-3) and uses a 1–9 pairwise comparison scale. The reliability confirmation of the weight vector obtained by calculating the consistency ratio is done.

In this case, the study used a literature review and interviews with three academics who are experts in their fields to come up with nine criteria and sub-criteria that will help tourists choose a thermal tourism facility. The criteria were determined in line with the relevant literature review and the opinions of expert academicians. These criteria are: quality of hospitality service at the thermal facility; quality of health services at the thermal facility; geographical features of the region where the thermal facility is located cultural and historical attractions of the region where the thermal facility is located, opportunities for the auxiliary services of the region where the thermal facility is located price for the service received from the thermal facility, the region and the facility transportation facilities for the thermal facility are in the form of perception of security for the region where the thermal facility is located and touristic activities in the region of the thermal facility (Parasuraman et al., 1985; Parasuraman, 1998; Buhalis, 2000; Sandıkçı and Gürpınar; 2008; Koroma, 2011; Payam, 2015; Mrčela et al., 2015; Ayaz and Dağ, 2017; Timur, 2018; Republic of Turkey Ministry of Health, 2018; Ceylan, 2019; Kılıcı et al., 2020; Çılgınoğlu and Aytuğar, 2021; Yalman, 2021; Ön Esen and Bahar, 2021; Çapar et al., 2021). In multi-criteria decision models, problem-solving approaches can be designed according to different purposes, such as sorting, selection, and grading. In this context, it is of great importance to choose the appropriate methods for the problem. As a result of the BWM method in the study, an order was obtained as C2>C1>C7>C6>C5>C9>C8>-C4>C3 among the criteria.

According to the research findings, the most important criterion in choosing a thermal tourism facility is the quality of the facility's health services. One of the most important features of thermal facilities is that they have natural thermal resources. These springs are water resources with rich mineral content and suitable temperature and thermal properties. Facilities must provide sufficient and continuous water from these sources. Considering that thermal facilities are focused on health tourism, it is important that they offer spa and health services. Expert and qualified personnel must offer services like massage, skin care, hydrotherapy, saunas, and Turkish baths. These services should help guests relax and improve their health. The criterion of secondary importance is the hospitality service quality of the thermal facility. Comfortable and spacious hospitality units should be offered to guests in thermal facilities. Rooms should be equipped with modern and comfortable furniture, meet cleanliness standards, and offer a comfortable hospitality experience. It is vital to comply with hygiene and safety standards in thermal facilities. Facilities should regularly implement cleaning and disinfection measures and take necessary precautions for health and safety. The health and safety of guests should always be a priority. According to the research results, the third most important criterion in choosing a thermal tourism facility is the region where the facility is located and the transportation opportunities to the facility. Thermal facilities should be easy to access. It should be located in a location that guests can easily reach, and transportation options should be provided. It is also preferred that they be close to airports, bus stations, or train stations. Touristic activities in the region where the thermal facility is located are another important criterion in

choosing a thermal facility. Thermal facilities should offer guests various recreation and activity opportunities. Having facilities such as swimming pools, gyms, nature walking areas, restaurants, and cafes allows guests to spend time with different activities. Additionally, thermal facilities must demonstrate environmental and cultural sensitivity. The cultural and historical attractions of the region where the thermal facility is located are another important criterion affecting facility selection. It is important to protect the natural environment, support local culture, and comply with sustainable tourism practices. Attention should be paid to issues such as environmentally friendly practices, waste management, and energy efficiency.

The World Trade Organization classifies health tourism under the subheading "services requiring expertise" under the header "Professional Services". As is the case with the vast majority of occupations requiring specialized knowledge, multi-stakeholder collaboration is essential in health tourism. Despite the fact that each stakeholder operates at a distinct level, the efficiency of each is essential for a robust sector structure. The study's findings serve as a resource for those working in practice and academia regarding the factors that must be considered from the selection of the site for the thermal facility's establishment to its design and service delivery. In this way, it is anticipated that the research will cover a gap in the relevant literature and illuminate future studies.

Referance

Aghaloo, K., Ali, T., Chiu, Y. R., and Sharifi, A. (2023). Optimal site selection for the solar-wind hybrid renewable energy systems in Bangladesh using an integrated GIS-based BWM-fuzzy logic method. Energy Conversion and Management, 283, 116899.

Amengual, A., Homar, V., Romero, R., Alonso, S., and Ramis, C. (2012). Projections of the climate potential for tourism at local scales: Application to Platja de Palma, Spain. International journal of climatology, 32(14), 2095-2107.

Aslan, H. M. (2017). "Determination of Optimal Vehicle Selection of Logistics Companies with AHP-ARAS Hybrid Method". The Journal of Operations Research,Statistics, Econometrics and Management Information Systems, 5(2), 272-282.

Aslan, Z. (1992). Termal Turizm işletmelerinde Hizmet Standartlarının Geliştirilmesi ve Pazarlama Faaliyetine Etkisi-Balçova Termal Merkezi Uygulaması. Yayınlanmamış Yüksek Lisans Tezi. Dokuz Eylül Üniversitesi: Sosyal Bilimler Enstitüsü.

Bâc, D. P. (2014). The emergence of sustainable tourism-A literature review. QUAESTUS Multidisciplinary Research Journal, 4, 131-140.

Badi, I., Muhammad, L. J., Abubakar, M., and Bakır, M. (2022). Measuring sustainability performance indicators using FUCOM-MARCOS methods. Operational Research in Engineering Sciences: Theory and Applications, 5(2), 99-116.

Bayat, M., and Yalman, F. (2020). Determining the competitiveness level and competitivity factors of the thermal health tourism sector of South Egean Thermal Tourism Development region. Business and Management Studies: An International Journal, 8(4), 551-578.

Birgün, S., and Ulu, M. (2021). Site selection for a training centre focused on industry 4.0 by using DEMATEL and COPRAS. In Digital Conversion on the Way to Industry 4.0: Selected Papers from ISPR2020, September 24-26, 2020 Online-Turkey (pp. 37-50). Springer International Publishing.

Boyraz, M., and Çetin, A. (2018). TERMAL OTEL İŞLETMELERİNDE JEOTERMAL KAYNAK KULLANIMININ YÖNETİCİ BAKIŞ AÇISIYLA DEĞERLENDİRİLMESİ: DENİZLİ İLİ ÖRNEĞİ. Süleyman Demirel Üniversitesi Vizyoner Dergisi, 10(23), 84-98.

Brandão, F., Liberato, D., Teixeira, A. S., and Liberato, P. (2021). Motives for thermal tourism: An application to north and central Portugal. Sustainability, 13(22). https://doi.org/10.3390/su132212688

Buhalis, D. (2000). Marketing the competitive destination of the future. Tourism management, 21(1), 97-116.

Bulut, A., and Şengül, H. (2019). Dünyada ve Türkiye'de sağlık turizmi. Yönetim, Ekonomi ve Pazarlama Araştırmaları Dergisi.

Burucuoğlu, M. (2011). Müşteri memnuniyeti ve sadakatini arttırmada müşteri şikayetleri yönetiminin etkinliği: Bir örnek olay incelemesi (Master's thesis, Karamanoğlu Mehmetbey Üniversitesi Sosyal Bilimler Enstitüsü).

Cadotte, E. R., Woodruff, R. B., and Jenkins, R. L. (1987). Expectations and norms in models of consumer satisfaction. Journal of marketing Research, 24(3), 305-314.

Chatterjee, P., and Chakraborty, S. (2012). Material selection using preferential ranking methods. Materials and Design, 35, 384-393.

Cheng, L. H., Cao, D. Q., ve Guo, H. M. (2020). Analysis of coal mine occupational disease hazard evaluation index based on AHP-DEMATEL. Archives of Environmental and Occupational Health, 1-13.

Çakır, E., and Melih, C. A. N. (2019). Best-worst yöntemine dayalı ARAS yöntemi ile dış kaynak kullanım tercihinin belirlenmesi: Turizm sektöründe bir uygulama. Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 23(3), 1273-1300.

Çakırlı, M. Y., and Ulu, M. (2023). Çok ölçütlü karar verme yöntemleri ile kobilerde kurumsal kaynak planma yazilimi seçimi ve değerlendirilmesi. B. Yaprak (Eds.) Tüketim, Yönetim ve Kalkınma Bağlamında Sürdürülebilirlik-II, 145-166, Gazi Kitabevi, Ankara

Çalık, A. (2021). Grup Karar Verme Yöntemlerini Kullanarak Yeşil Tedarikçi Seçimi: Gıda Endüstrisinden Bir Örnek Olay Çalışması. Ekonomik ve Sosyal Araştırmalar Dergisi, 17(1), 1-16.

Çapar, H., Ulu, M., and Çelik, H. (2021). İşletmelerin kriz yönetimi ve stratejileri: sağlık işletmelerinde bir uygulama, S. Birgün (Eds.) Akıllı Dönüşüme Yolculuk, 870-889, Artikel Akademi, İstanbul

Dağ, H.(2020) Termal Turizmde Seyahat Nedenlerinin Alt Boyutlarının Belirlenmesi: Haymana Saha Araştırması. Akademi Sosyal Bilimler Dergisi, 7(19), 82-92.

Dalbudak, E., and Rençber, Ö. F. (2022). Çok Kriterli Karar Verme Yöntemleri Üzerine Literatür İncelemesi. Gaziantep Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 4(1), 1-17.

Demir, G., and Bircan, H. (2020). Kriter Ağirliklandirma Yöntemlerinden BWM ve FUCOM Yöntemlerinin Karşilaştirilmasi ve Bir Uygulama. Cumhuriyet Üniversitesi İktisadi ve İdari Bilimler Dergisi, 21(2), 170-185.

Demir, M. H. and Gümüşoğlu, Ş. (2009). Üretim Yönetimi (İşlemler Yönetimi). İstanbul: Beta Yayın Dağıtım.

Dini, M., and Pencarelli, T. (2022). Wellness tourism and the components of its offer system: a holistic perspective. Tourism Review, 77(2), 394-412. https://doi.org/10.1108/TR-08-2020-0373

Dorin-Paul, B. (2013). Sustainable tourism and its forms–A theoretical approach. Annals of Faculty of Economics, 1(1), 759-767.

Ecer, F. (2020). Multi-criteria decision making for green supplier selection using interval type-2 fuzzy AHP: a case study of a home appliance manufacturer. Operational Research, 1-35.

Ersoy, N. (2022). Kriter ağırlıklandırma yöntemlerinin ÇKKV sonuçları üzerindeki etkisine yönelik gerçek bir hayat uygulaması. Manas Sosyal Araştırmalar Dergisi, 11(4), 1449-1463.

Fan, S., Huang, H., Mbanyele, W., Guo, Z., and Zhang, C. (2023). Inclusive green growth for sustainable development of cities in China: spatiotemporal differences and influencing factors. Envi-

ronmental Science and Pollution Research, 30(4), 11025-11045.

Faroldi, E., Fabi, V., Vettori, M. P., Gola, M., Brambilla, A., and Capolongo, S. (2019). Health tourism and thermal heritage: assessing Italian spas with innovative multidisciplinary tools. Tourism Analysis, 24(3), 405-419.

Fertas, L., Alouat, M., and Benmahamed, H. (2022). Thermal tourism as a driver of local development, an illustration of opportunities and constraints. case study of hammam-guergour in the province of sétif, Algeria. Geo Journal of Tourism and Geosites, 40(1), 136-143.

Fertas, L., Alouat, M., and Benmahamed, H. (2022). Thermal tourism as a driver of local development, an illustration of opportunities and constraints. case study of hammam-guergour in the province of sétif, Algeria. Geo Journal of Tourism and Geosites, 40(1), 136-143.

Gonçalves, E. C., and Guerra, R. J. da C. (2019). O turismo de saúde e bem-estar como fator de desenvolvimento local: uma análise à oferta termal portuguesa. PASOS. Revista de Turismo y Patrimonio Cultural, 17(2), 453–472. https://doi.org/10.25145/j.pasos.2019.17.030

Göçer, İ., and Aydin, N. (2016). Türkiye'de Sağlık Değişkenlerinin Turizm Gelirine Etkisi: Çoklu Yapısal Kırılmalı Bir Analiz. Çankırı Karatekin Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 6(1), 777-800.

Gümüş, S. ve Polat, N. (2012). Sağlık turizminde pazarlama değişkenlerine bir bakış ve İstanbul örneği. Hiperlink yayınları. Yayın No:47, İstanbul.

Güneş, M. and Umurusman, N. (2003). "Bir Karar Destek Aracı Bulanık Hedef Programlama Yerel Yönetimlerde Vergi Optimizasyonu Uygulaması", Rewiev of Social Economic and Busisness Studies, 2: 242- 255.

Gür, Ş. and Eren, T. (2016). Analitik Ağ Süreci Yöntemi İle İşletmelerin Performanslarına Etki Eden Faktörlerin Değerlendirilmesi. Trakya Üniversitesi İktisadi ve İdari Bilimler Fakültesi E-Dergi, 5(2), 76-93.

Hall, C. M. (2011). Health and medical tourism: a kill or cure for global public health?. Tourism review, 66(1/2), 4-15.

Hashemkhani Zolfani, S., Yazdani, M., and Zavadskas, E. K. (2018). An extended stepwise weight assessment ratio analysis (SWARA) method for improving criteria prioritization process. Soft Computing, 22(22), 7399-7405.

Henama, U. S. (2014). Health tourism in South Africa: opportunities and possibilities. African Journal of Hospitality, Tourism and Leisure, 3(1), 1-8.

Hritz, N. M., Sidman, C. L., and D'Abundo, M. (2014). Segmenting the college educated generation Y health and wellness traveler. Journal of Travel and Tourism Marketing, 31(1), 132-145.

Isaac, R. K., and Eid, T. A. (2019). Tourists' destination image: an exploratory study of alternative tourism in Palestine. Current Issues in Tourism, 22(12), 1499-1522.

Jovicic, D. (2016). Cultural tourism in the context of relations between mass and alternative tourism. Current Issues in Tourism, 19(6), 605-612.

Karaatli, M., Ömürbek, N., Budak, İ., and Okan, D. A. Ğ. (2015). Çok kriterli karar verme yöntemleri ile yaşanabilir illerin sıralanması. Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, (33), 215-228.

Karabacak, M. (2019). Termal turizm işletmelerinde hizmet kalitesi ölçümü üzerine bir araştırma (Master's thesis, Sosyal Bilimler Enstitüsü).

Karademir, N., Sandal, E. K., and Bilinir, Ş. (2019). Döngele Kaplıcası (Kahramanmaraş)'nın termal turizm potansiyeli ve sosyo-ekonomik katkıları. Kahramanmaraş Sütçü İmam Üniversitesi Sosyal Bilimler Dergisi, 16(2), 640-670.

Karakış, E. (2022). Bwm Ve Bulanık Todım Yöntemleri İle Perakende Sektöründe Tedarikçi Seçiminin Gerçekleştirilmesi. Uluslararası İktisadi ve İdari İncelemeler Dergisi, (34), 37-60.

Kaygisiz, N. Ç. (2021). Sağlık turizmi yetki belgesi bulunan seyahat acentelerinin web sitelerinin değerlendirilmesi. TÜRK TURİZM ARAŞTIRMALARI DERGİSİ, 5(1), 152-163.

Koca G., and Akçakaya, E. D. U. (2021). Giyilebilir Teknolojik Ürünlerin Tasarımında Etkili Olan Faktörlerin Best-Worst Metodu (BWM) İle Değerlendirilmesi. Bilecik Şeyh Edebali Üniversitesi Fen Bilimleri Dergisi, 8(1), 136-150.

Koliouska, C., and Andreopoulou, Z. (2023). E-Tourism for Sustainable Development through Alternative Tourism Activities. Sustainability, 15(11), 8485.

Lee, J., and Kim, H. B. (2015). Success factors of health tourism: cases of Asian tourism cities. International Journal of Tourism Cities, 1(3), 216-233.

Lunt, N., Smith, R. D., Exworthy, M., Green, S. T., Horsfall, D. G., and Mannion, R. (2011). Medical tourism: treatments, markets and health system implications: a scoping review.

Mi, X., and Liao, H. (2019). An integrated approach to multiple criteria decision making based on the average solution and normalized weights of criteria deduced by the hesitant fuzzy best worst method. Computers and Industrial Engineering, 133, 83-94.

Moslem, S., Farooq, D., Ghorbanzadeh, O., and Blaschke, T. (2020). Application of the AHP-BWM model for evaluating driver behavior factors related to road safety: A case study for Budapest. Symmetry, 12 (2), 243.

Mou, Q., Xu, Z. and Liao, H. (2016). "An Intuitionistic Fuzzy Multiplicative Best-Worst Method for Multi-Criteria Group Decision Making". Information Sciences, 374, 224–239.

Moyer, J. D., and Hedden, S. (2020). Are we on the right path to achieve the sustainable development goals?. World Development, 127, 104749.

Mulliner, E., Smallbone, K., Maliene, V., 2013. An assessment of sustainable housing affordability using a multiple criteria decision making method. Omega 41, 270– 279.

Nadezhda, K. (2022). World trends in the development of health tourism. Псковский регионологический журнал, 18(2), 126-138.

Olcay, A., and Giritlioğlu, İ. (2014). Gaziantep bölgesinde şehir turizmine hizmet veren otellerde müşteri memnuniyeti üzerine bir araştırma. Elektronik sosyal bilimler dergisi, 13(50), 1-22.

Oriade, A., and Evans, M. (2011). Sustainable and alternative tourism. In Research themes for tourism (pp. 69-86). Wallingford UK: CABI.

Özkan, M. E. (2019). Sağlık Turizmi Kapsamında Türkiye'nin Medikal Turizm Potansiyeline Yönelik Bir Değerlendirme. Turizm Ekonomi ve İşletme Araştırmaları Dergisi, 1(1), 50-64.

Özsarı, S. H., and Karatana, Ö. (2013). Sağlık Turizmi Açısından Türkiye'nin Durumu. Journal of Kartal Training and Research Hospital/Kartal Egitim ve Arastirma Hastanesi Tip Dergisi, 24(2).

Parasuraman, A. (1998). Customer service in business-to-business markets: an agenda for research. Journal of business and industrial marketing, 13(4/5), 309-321.

Parasuraman, A., Zeithaml, V. A., and Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. Journal of marketing, 49(4), 41-50.

Peng, X., Krishankumar, R., ve Ravichandran, K. S. (2021). A novel interval-valued fuzzy soft decision-making method based on cocoso and CRITIC for intelligent healthcare management evaluation. Soft Computing, 25(6), 4213-4241.

Pereira, R., Costa, V., and Gomes, H. (2023). Health and Wellness Tourism: An Overview of Thermal Tourism in Portugal. Journal of Tourism, Sustainability and Well-being, 11(3), 136-147.

Rezaei, J. (2015). Best-worst multi-criteria decision-making method. Omega, 53, 49–57. Https://doi. Org/10.1016/J.OMEGA.2014.11.009

Rezaei, J. (2016). Best-worst multi-criteria decision-making method: Some properties and a linear model. Omega, 64, 126-130.

Rodnic, A. R., Gracan, D., Fister, M. (2009). Repositioning of ThermalSpaTourism of Nort-West Crotia in AccordanceWiththeEuropeaThermalSpaTorismTrends. TourismandHospitality Management an International Journal of MultidisciplinoryResearc, Vienna

Sachs, J. D. (2015). The age of sustainable development. Columbia University Press.

Sandıkçı, M. (2008). Health Expectations and Customer Satisfaction in Thermal Tourism Enterprises. Unpublished PhD (Doctorate) Thesis), Afyon Kocatepe University/Institute of Social Sciences, Afyonkarahisar.

Sandıkçı, M., and Gürpınar, K. (2008). Termal Turizm İşletmelerinde Kür Hizmetlerinin Algılanan Önemi: Ege Bölgesi'nde Bir Araştırma. Afyon Kocatepe Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 10(1), 103-121.

Shaygani, F., Ahmadi Marzaleh, M., and Gheibi, Z. (2023). Knowledge and attitude of students of medical sciences universities regarding health tourism: A cross□sectional study. Health Science Reports, 6(9), e1580.

SİNER, G., and TORUN, N. (2020). Sağlık turizminde termal turizm ve Spa-Wellness turizminin yeri ve önemi. Erciyes Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, (48), 517-533.

Sivakumar, V. L., Krishnappa, R. R., ve Nallanathel, M. (2021). Drought vulnerability assessment and mapping using Multi-Criteria decision making (MCDM) and application of Analytic Hierarchy process (AHP) for Namakkal District, Tamilnadu, India. Materials Today: Proceedings, 43, 1592-1599

Smith, M., and Puczkó, L. (2015). More than a special interest: Defining and determining the demand for health tourism. Tourism recreation research, 40(2), 205-219.

Stănciulescu, G. C., and Diaconescu, G. N. (2015). Models and Alternative Strategies in the Context of Sustainable Development. Alternative Tourism. International Journal of Economic Practices and Theories, 5(3).

Talesca vd., "Assessment of the Conditions for the Development of Spa Tourism in the Republic of Macedonia", International Scientific Conference GEOBALCANICA 2015, s.487.

Tam, J. L. M. (2011). The moderating effects of purchase importance in customer satisfaction process: An empirical investigation. Journal of Consumer Behaviour, 10(4), 205-215.

Tanrıverdi, G., Ecer, F., and Durak, M. Ş. (2022). Exploring factors affecting airport selection during the COVID-19 pandemic from air cargo carriers' perspective through the triangular fuzzy Dombi-Bonferroni BWM methodology. Journal of Air Transport Management, 105, 102302.

Theng, S., Qiong, X., and Tatar, C. (2015). Mass tourism vs alternative tourism? Challenges and new positionings. Études caribéennes, (31-32).

Ulu, M., and Şahin, H. (2021). An integrated approach for fire extinguishers selection with DEMATEL and TODIM methods. Business and Management Studies: An International Journal, 9(4), 1696-1707.

Ulu., M., Türkan, Y. S., and Mengüç, K. (2022). Trafik kazalarını etkileyen faktörlerin ağırlıklarının BWM ve SWARA yöntemleri ile belirlenmesi. Akıllı Ulaşım Sistemleri ve Uygulamaları Dergisi, 5(2), 227-238.

World Tourism Organization (UNWTO). (2018). Exploring Health Tourism – Executive Summary. Exploring Health Tourism – Executive Summary. https://doi.org/10.18111/9789284420308

Yazdani, M., Wen, Z., Liao, H., Banaitis, A., and Turskis, Z. (2019). A grey combined compromise solution (cocoso-G) method for supplier selection in construction management. Journal of Civil Engineering and Management, 25(8), 858-874.

Yıldıza, Ü., and Gürhan, N. (2020). The Effects of Alternative Tourism Activites on Sustainable Tourism Potential and Employment. Revista Argentina de Clínica Psicológica, 29(5), 1567-1581.

Yucesan, M., Mete, S., Serin, F., Celik, E., and Gül, M. (2019). An Integrated Best-Worst and Interval Type-2 Fuzzy TOPSIS Methodology for Green Supplier Selection. Mathematics, 7(2), 182. Https://doi.org/10.3390/ math7020182