

RESEARCH ARTICLE

## ASSESSMENT OF THERMAL TOURISM POTENTIAL OF SAKARYA AKYAZI DISTRICT

Hüseyin ASLAN \*  
Buse METE \*\*  
İsmail ŞİMŞİR \*\*\*  
Cemil ÖRGEV \*\*\*\*

### ABSTRACT

Within the scope of the research, it is aimed to reveal the SWOT analysis for examining thermal tourism potential in Akyazı in terms of health and tourism management, marketing approach and sustainability. For this purpose, face-to-face interviews were held with local governments and business officials as health tourism stakeholders. The interviews, which were completed with participation of 10 stakeholders, lasted an average of one hour. The collected data were evaluated with SWOT analysis sub-dimensions and based on these, various strategic suggestions were presented to reveal and develop the thermal health tourism potential of the district. According to the results of the research, Akyazı's natural beauties, thermal water resources and easy transportation are among its strengths in terms of thermal health tourism. Among its weaknesses, the lack of city promotion and social activity areas are shown. The fact that sector investments are mostly directed to big cities is among the environmental threats. The aging of the world population and the fact that health tourism services are within the scope of SSI (Social Security Institution) are also considered as opportunities to support the development of Akyazı health tourism.

**Keywords:** Health tourism, thermal tourism, SWOT analysis.

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\* Assist. Prof., Sakarya University of Applied Sciences, Faculty of Health Sciences, Department of Health Management, huseyinaslan@subu.edu.tr

 <https://orcid.org/0000-0001-8963-7638>

\*\* Res. Asst., Sakarya University of Applied Sciences, Faculty of Health Sciences, Department of Health Management, busemete@subu.edu.tr

 <https://orcid.org/0000-0001-5440-9723>

\*\*\* Assist. Prof., Sakarya University of Applied Sciences, Faculty of Health Sciences, Department of Health Management, ismailsimisir@subu.edu.tr

 <https://orcid.org/0000-0001-7460-9634>

\*\*\*\* Prof. Dr., Sakarya University of Applied Sciences, Faculty of Health Sciences, Department of Health Management, corgev@subu.edu.tr

 <https://orcid.org/0000-0002-9027-0965>

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## SAKARYA AKYAZI İLÇESİNİN TERMAL TURİZM POTANSİYELİNİN DEĞERLENDİRİLMESİ

Hüseyin ASLAN \*  
Buse METE \*\*  
İsmail ŞİMŞİR \*\*\*  
Cemil ÖRGEV \*\*\*\*

### ÖZ

Araştırma kapsamında Akyazı'daki termal turizm potansiyelinin sağlık ve turizm yönetimi, pazarlama yaklaşımı ve sürdürülebilirlik açısından incelenmesine yönelik SWOT analizinin ortaya çıkarılması amaçlanmaktadır. Bu amaç doğrultusunda sağlık turizmi paydaşları olarak yerel yönetimler ve işletme yetkilileriyle yüz yüze görüşmeler yapılmıştır. 10 paydaşın katılımı ile tamamlanan görüşmeler ortalama bir saat sürmüştür. Toplanan veriler SWOT analizi alt boyutlarıyla değerlendirilmiş ve bunlara dayalı olarak ilçenin termal sağlık turizm potansiyelinin ortaya çıkarılması ve geliştirilmesi için çeşitli stratejik öneriler sunulmuştur. Araştırma sonuçlarına göre Akyazı'nın termal sağlık turizmi açısından doğal güzelliklere, termal su kaynaklarına sahip olması, ulaşım imkanlarının kolay olması güçlü yönleri arasında yer almaktadır. Zayıf yönleri arasında şehir tanıtımının, sosyal etkinlik alanlarının yetersiz olması gösterilmektedir. Sektör yatırımlarının çoğunlukla büyük illere yöneltiliyor olması ise çevresel tehditler arasında yer alır. Dünya nüfusunun yaşlanıyor olması, sağlık turizm hizmetlerinin SGK kapsamında olması da Akyazı sağlık turizminin gelişimini destekleyecek fırsatlar olarak değerlendirilmektedir.

**Anahtar Kelimeler:** Sağlık turizmi, termal turizm, SWOT analizi.

### MAKALE HAKKINDA

\* Dr. Öğr. Üyesi., Sakarya Uygulamalı Bilimler Üniversitesi, Sağlık Bilimleri Fakültesi, Sağlık Yönetimi Bölümü, huseyinaslan@subu.edu.tr

 <https://orcid.org/0000-0001-8963-7638>

\*\* Arş. Gör., Sakarya Uygulamalı Bilimler Üniversitesi, Sağlık Bilimleri Fakültesi, Sağlık Yönetimi Bölümü, busemete@subu.edu.tr

 <https://orcid.org/0000-0001-5440-9723>

\*\*\* Dr. Öğr. Üyesi., Sakarya Uygulamalı Bilimler Üniversitesi, Sağlık Bilimleri Fakültesi, Sağlık Yönetimi Bölümü, ismailsimir@subu.edu.tr

 <https://orcid.org/0000-0001-7460-9634>

\*\*\*\* Prof. Dr., Sakarya Uygulamalı Bilimler Üniversitesi, Sağlık Bilimleri Fakültesi, Sağlık Yönetimi Bölümü, corgev@subu.edu.tr

 <https://orcid.org/0000-0002-9027-0965>

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## **I. INTRODUCTION**

Health tourism is the planned travels of people to regions other than they live in order to get the treatment and therapy services they need to heal their psychological and physical diseases and to improve and support their existing health status (Carrea and Bridges, 2008). In this context, people stay in touristic areas, benefit from complementary cure treatments, and meet their catering and entertainment needs (Izadi et al., 2012). For this reason, health tourism mobility is towards places where the quality of health services is high, the costs are low, the air and nature are clean, and the diversity of social-cultural activities is high. As stated above, health tourism carried out within the scope of different purposes is diversified as medical tourism, thermal tourism, senior and accessible tourism, wellness tourism etc. (Smith and Puczko, 2009).

Health tourism, which is one of the alternative tourism types, is developing rapidly with globalization and increasing demands of people such as leading a healthy life, recognizing different culture and traveling abroad. People are more aspirational to prevent diseases, to be treated, to have information about their treatments and to apply new methods supporting a healthy life today than in the past. The development of health tourism offers people to recognize different cultures, to have fun and holiday, as well as the opportunity to regain their health with affordable costs and higher quality (Şengül and Bulut, 2019). In addition, thermal tourism based on cultural values such as spas that provide vitality, wellness therapies, mud baths, massage cures are also within the scope of health tourism. One of these is thermal tourism, where medical health services and traditional therapies are offered together. It is known that Turkey is among the advantageous countries in terms of thermal tourism opportunities around the world (Doruk, 2019).

It is thought that there are new thermal resource areas that support treatment in Akyazı district of Sakarya province in the Marmara Region and that should be evaluated in the context of health tourism. However, it is known that the thermal facility, located in a single region in Akyazı district, has been operating in the direction of tourism and support for the treatment of various diseases for many years. Inadequacy of qualified treatment services, quality and modern accommodation facilities, and the lack of treatment recommendations and follow-up by qualified health professionals limit the use of existing resources and the provision of health services at an international scale. Present research is aimed to reveal the SWOT analysis to examine the thermal tourism potential in Akyazı in terms of health and tourism management, marketing approach and sustainability. For this purpose, in-depth interviews were conducted with stakeholders in the field of health tourism and thermal tourism in Akyazı. The collected data were evaluated with SWOT analysis sub-dimensions and based on these, various strategic suggestions were offered to reveal and develop the thermal health tourism potential of the district.

## **II. LITERATURE**

### **2.1. Concept and Types of Health Tourism**

**Medical tourism:** They are the journeys that people make to benefit from the medical services provided by specialist physicians in health institutions such as hospitals, medical centers or diagnosis centers outside the regions they live in. In short, medical tourism is a type of tourism that includes all medical and surgical applications (Bookman and Bookman, 2007). In order to talk about effectiveness and efficiency in medical tourism, 4 main factors must be provided: General tourism potential (natural resources, climatic elements, historical structure, etc.), all medical services (hospital, medicine, technology, health professionals, etc.), customer potential and the presence of institutions that can bring these three factors together (agents, etc.) (Connell, 2011). Thailand, Turkey, India, South Korea, Germany, Netherlands and many more countries are among the countries that are the most preferred in the world by meeting these 4 factors together required for medical tourism (Leonova, 2018). Procedures such as aesthetic surgery, cardio-vascular surgery, dental / prosthetic treatments and organ

transplantation can be ranged as the most preferred medical tourism services in these countries (Singh, 2019).

**Senior (Geriatric) Tourism:** Senior tourism, which is also expressed with different terms (geriatrics/elderly/third age tourism), is a type of health tourism made to treat the existing health problems of the elderly, to diagnose and prevent possible diseases that may be encountered in the future, to improve social life activities and to support their current lifestyles. There are health institutions, hotels, private nursing homes and recreation centers, personal geriatric therapy centers providing services on these issues in many countries (Sözen, 2014).

**Thermal-Spa-Wellness Tourism:** Thermal tourism is travel to take advantage of the healing opportunities provided by the mineral waters coming from the underground (Charlier and Chaineux, 2009). In some sources, thermal tourism is also called hot spring tourism (Doruk, 2019). In thermal tourism, remedial methods are applied such as healing water-based cure therapy, balneotherapy, peloidtherapy, climatotherapy, etc. are used to support the treatment of people and to regain their health faster (Aydin, 2014).

Spa-Wellness Tourism, which is evaluated in the context of thermal tourism, is highly developed in various parts of the world and has just begun to gain ground in Turkey. SPA, which is called the healing provided by water, is the applications carried out for the purpose of spiritual and physical well-being. Wellness, which means gaining physical and mental well-being and increasing the quality of life, includes applications that provide all kinds of vitality (skin care, massage, natural origin care services, socialization activities, etc.) (Özsarı and Kartana, 2013).

## **2.2. The Importance of Thermal Tourism in the Context of Health Tourism in the World and in Turkey**

Today, it is stated that health tourism has a volume of 100 billion dollars of market size in the world. In addition, the development of technological opportunities, the ease of access to services and the removal of barriers to transportation contribute to the emergence and popularity of health tourism. The developments occurred have also caused the awareness of healthy life in people, the search for quality and affordable service and contributed to the international health tourism mobility. The demand for cardiovascular surgery, neurosurgery, aesthetic surgery, dental treatment, hair transplant, physiotherapy and rehabilitation services, which are out of the insurance coverage of countries and offered at high prices, are among the main activities of health tourism (Connell, 2013). Many countries such as India, Malaysia, Argentina, Brazil, Dubai, Thailand, Singapore, Turkey, etc., which use the potential in the field of health tourism quite well, gain strategic advantages thanks to their high profits (Buzinde and Yarnal, 2012).

While thermal health tourism provides similar benefits in the countries of the world, it differs in some aspects. For instance, the development of thermal tourism in Asian countries dates back to ancient times and is developing faster depending on the cultural infrastructure of the society. Especially East Asian countries such as South Korea, Japan and Thailand are among the leading countries in spa-wellness tourism thanks to traditional Thai massage, traditional body care and therapeutic applications. In addition, the fact that South Asian countries are located on tectonic fault lines and have high mineral spring waters are important for the development of thermal/spa tourism (Edinsel and Adıgüzel, 2014). In European countries, thermal health tourism has become a rapidly developing sector by integrating with the geographical and climatic structure of the regions. In particular, the natural beauties of developing countries such as Hungary and Austria, their policies in the field of health tourism, and the fact that the countries are centers of attraction for tourism at international level also positively affect the activities of thermal tourism (Johnston et al., 2011).

Thermal tourism in North America includes the provision of integrated health services with comprehensive practices such as spa, yoga, and meditation in order to support the social,

psychological and cultural development of people. Health institutions serving in this context in the USA are inspected by quality institutions such as JCI (Joint Commission International) and their sustainability is ensured. It is stated that the contribution of thermal health institutions that have JCI accreditation in the American tourism sector is 72.4%. The high-income level of the society and the potential for the elderly population has also increased the demand for thermal health tourism in the USA (Csirmaz and Peto, 2015).

From the perspective of Turkey, it is seen that the popularity of thermal tourism services and businesses within the scope of health tourism has increased. Factors that play a role in the development of thermal tourism in Turkey can be listed as the increase in people's interest in thermal treatment methods, the increase in the proportion of the elderly population in the world, and the high pricing implementation in other world countries (Selvi, 2011). Besides to these, Turkey's high geothermal resource potential has a very important place in the development of thermal health tourism. The characteristics of geothermal waters in Turkey are that the output flow is high, the depth of arrival and temperature are high, and high mineral content. In addition, the fact that the regions where thermal springs are located has the maritime climate, clean air and forestlands, increase their attractiveness (Türksoy and Türksoy, 2010).

According to statistical data, there are more than 1800 spot with thermal spring Turkey. However, only 6% of these resources are actively used. An average of 10 million domestic and more than 300,000 foreign tourists stay in these thermal facilities annually. 267 of these facilities were approved as cure centers by the Ministry of Health and received a tourism investment certificate from the Ministry of Culture and Tourism. Considering the distribution of thermal health facilities to the regions of Turkey, 33.5% is in the Aegean, 28% in Central Anatolia, 20% in the Marmara, 10% in the East and Southeast, and 8% in the Mediterranean and Black Sea Regions (SGK, 2019). It is seen that thermal facilities in Turkey have a lower share in the market when compared in Turkey and at an international level. The reasons for this can be listed as the property rights in the areas where thermal facilities are established, lack of legal and political regulation, insufficient integration of health services, deficient marketing approaches, inadequacy of facility design, etc. (Selvi, 2011). When we look at world, 10 million foreign tourists in Germany and Hungary, 8 million in Russia, 1 million in France and 800 thousand in Switzerland are hosted in spa facilities for thermal health tourism. In Japan, 13 million tourists go to city of Beppu annually only for thermal tourism purposes. This value is equivalent to 61.9% of Turkey's tourism, and this value is only for the city of Beppu. There are also many cure centers in Russia and these cure centers host 8 million tourists annually (Global Wellness Institute, 2021).

Thermal health facilities in Turkey are demanded by people with certain diseases. Certain diseases that thermal springs in Turkey with different features support the healing and medical treatment process are in general diseases related to rheumatic, dermatological, blood circulation disorder, liver, gallbladder, cardiovascular, respiratory, paralysis, kidney and surgery indications (Tengilimoğlu and Karakoç, 2020).

It is seen that various strategies are included in the country's policies in order to evaluate the thermal spring waters in Turkey more efficiently and effectively. In this context, the first strategic plan was prepared by Republic of Turkey Ministry of Culture and Tourism in 2007. Within the scope of Turkey Tourism Strategy (2023), action plans have been created in terms of the problems, solutions and sustainability of health tourism. With the Thermal Tourism Master Plan (2007-2023), it is aimed to determine the areas where the thermal springs are located and their characteristics, to provide the necessary investments and incentives to the relevant geographical regions, to carry out studies for the efficient use of resources, and to protect natural areas. In order to achieve these goals, the Tourism Incentive Law No. 2634 came into force and some regions were declared as thermal tourism areas in order to benefit from the incentives. The places declared as Thermal Tourism Region are as follows: (Numanoğlu et al., 2014):

- Southern Marmara Thermal Tourism Cities Region: Balıkesir, Bursa, Çanakkale, Yalova
- East Marmara Thermal Tourism Cities Region: Bilecik, Kocaeli
- South Aegean Thermal Tourism Cities Region: Aydın, Denizli, Manisa, İzmir,
- Phrygian Region Thermal Tourism Cities Region: Afyonkarahisar, Ankara, Uşak, Eskişehir, Kütahya
- Central Anatolian Thermal Tourism Cities Region: Aksaray, Kırşehir, Yozgat, Nevşehir
- North Anatolian Thermal Tourism Cities Region: Amasya, Sivas, Tokat, Erzincan
- Western Black Sea Thermal Tourism Cities Region: Bolu, Düzce, Sakarya

### 2.3. General Information About Akyazı

Akyazı district is located at a distance of 27 km from Sakarya city center, 88 km from Kocaeli, 270 km from Ankara, 190 km from Bursa, and 175 km from Istanbul in terms of its geographical location. Transportation to the district can be made both by intercity bus services and transferring from Istanbul and Sabiha Gökçen Airports, which are a few hours away. In addition, the fact that Akyazı district is located on the Northern Marmara Highway facilitates transportation from many regions by private vehicles.

**Climate:** Since Akyazı district is located in the climate transition zone, four seasons are experienced distinctly. Predominantly, Mediterranean and Black Sea climate characteristics are felt. Average temperatures range between 3-29 degrees Celsius. The highest temperatures (29 degrees) occur in July-August, and the lowest (3 degrees) in January-February. Precipitation is generally in the form of rain and mostly pours in the months of December-January-February and March (Culture and Tourism Ministry, 2021).

**Flora:** Due to the Mediterranean and Black Sea climates in the Marmara region of Akyazı, there are large forestlands in Samanlı Mountain, which is a part of the North Anatolian Mountains. Regional forests; consists of chestnut, maple, hornbeam, linden, poplar, plane tree and oak tree communities. Especially beech and oak communities are used in the lumbering and sub-industry sector under the control of the General Directorate of Forestry (Akyazı Municipality, 2020).

**Nature Beauties:** Akyazı has a young surface structure that was formed in the 3rd and 4th geological times. Some mountain and plain shapes were formed as a result of fractures and folds in the earth's crust due to fault movements in these periods. Especially as Akyazı residential district, it was built on flat plains at the foot of folded mountains. The most important of the mountains surrounding it and the one having a unique view are Mount Keremali and Aksartepe. There is the Mudurnu Stream, which takes its source from the waters on the mountain peaks, in the north of Akyazı, where the slope of Askartepe decreases towards the Black Sea. In the Kuzuluk region, there is Sülüklü Lake, which is formed by the spring waters coming to the surface from the fault cracks in the region collapsed as a result of tectonic movements. In addition, Acelle Plateau in Akyazı is covered with coniferous and broad-leaved forests. Enişte Stream runs through the middle of the plateau, and there are fungal species that appear in certain periods, such as milk cap and morel, which strengthen the immune system. Sultanpınar Plateau, whose altitude is 1200 mt. and to where access is rather easy is one of the natural beauties of Akyazı. There are mixed forests on the skirts of this plateau and fir forests on the upper borders. The fact that Sultanpınar Plateau is surrounded by wide meadow plains offers opportunities for people to spend time with nature and to camp. Davlumbaz Plateau is one of the geographical beauties of the region where wooden houses, walking and recreation areas are located, covered with forests, located to the west of Sülüklü Lake. On the other hand, there is a walking track whose length is 13 km where scotch fir forestland in Akyazı Ahmediye region and Karadağdere waterfall at the end of the track (Sakarya Governorate, 2020).

**Demographic Structure:** The widespread industrialization around Akyazı caused immigration from the undeveloped regions around it. In addition, the thermal tourism-based thermal springs of Kuzuluk operate with a time-share system, which also affects the population growth in the district. In

addition, the fact that the common livelihood in the district is based on agriculture causes the population density to be higher in the plain villages.

**Features of Thermal Springs in Akyazı:** The characteristics of the thermal waters of Akyazı were analyzed by the General Directorate of Mineral Research and Exploration (2017) during the drilling studies. It has been determined that the water comes from three different fault sources, is in the soda hot water group, and contains carbon dioxide. Its temperature is 59-80 degrees. In addition, the radioactivity of Akyazı thermal waters is between 3.9-7.3 mean, and the pH is between 6.8-8.2. It is known that thermal waters with these properties can be used with bath cures to support the treatment of rheumatism, arthritis, gynecological diseases, dermatological and blood circulation diseases. It is stated that the therapies applied with thermal water vapor in Akyazı are soothing and relaxing to the nervous system. Akyazı has a soil structure similar to the world-famous mud called Fungo, and it is known that mud baths accelerate the healing process of skin diseases. In addition, there is potable mineral water containing sodium bicarbonate and chloride with a radioactivity of 8.6 mean and a pH of 6.6 at a temperature of 18 degrees in the region. It is known that this water especially benefits individuals with stomach, intestine, kidney and diabetes diseases. It is stated that this water, which is especially drinkable, does not have diuretic and laxative effects (Termalrehber, 2012).

### **III. METODOLOGY**

#### **3.1. Purpose and Importance of the Research**

It is aimed to reveal the health tourism potential of Akyazı and to present an objective point of view to the relevant stakeholders and investors in present study. In countries with thermal health tourism potential such as Singapore, Bangladesh, and Mexico, scientific studies are used while creating strategic plans and targets (Boroviç and Markoviç, 2015; Izadi et al., 2012; Sigh, 2019). In Turkey, there are many academic studies that support to reveal the potential of thermal health tourism and to create strategic plans and targets. It is seen that current situation analyzes and strategic action plans are created based on national data (TURKSTAT etc.) and stakeholder views, especially in many regions like Afyon, Kocaeli, İzmir/Çeşme, Denizli/Karaayıt etc., which has been declared as a thermal tourism city (Sandıkçı and Özgen, 2013; Çiçek and Avderen, 2013; Kaya, 2019; Doruk, 2019). However, there are no studies in the literature on the determination of Sakarya/Akyazı thermal health tourism potential. It is thought that this research will be a guide to revealing the thermal health tourism potential in Akyazı and to the studies that will be carried out by local administrators, investors and national level administrators for Akyazı.

#### **3.2. Method**

This study was designed as qualitative research. Within the scope of the study, in-depth interview method was applied on the subject and SWOT analysis was carried out in accordance with the purpose of the research. Semi-structured interviews were conducted with the health tourism stakeholders in the district who accepted the interview proposal according to the research purpose. The data obtained were made ready for evaluation by dividing them into dimensions with the qualitative analysis method. For this purpose, 10 stakeholders including 2 officials from Akyazı Municipality, 1 thermal facility operation manager, 1 tourism tour company official, district state hospital chief physician, district health director, 1 academician, District Forestry Affairs Director, 1 Chamber of Industry and Commerce official, the secretary-general of district governorship were interviewed in January 2021. The interviewees were determined according to the purposive sampling method in order to evaluate different perspectives. Due to the Covid-19 pandemic process, some stakeholders could not make an appointment, and some did not return. For this reason, the number of people interviewed was limited to 10. The research protocol was approved by the Sakarya University of Applied Sciences Ethics Committee with the decision dated 31.03.2021 and numbered E-26428519-044-8871.

The questions asked to participants are as follows:

- What are strengths and weaknesses of Akyazı in thermal health tourism?
- What are environmental opportunities and threats of Akyazı in thermal health tourism?
- What are your current or planned projects in Akyazı for health and thermal tourism?
- If thermal health tourism develops, what will be its contribution to the region?
- What are your suggestions for development of health tourism in Akyazı?

The interviews were completed within 60-90 minutes and recorded with a voice recorder upon permission of the participants. After all the interviews were completed, the audio recordings were transcribed and the data was transferred to the demo version of MAXQDA-12, a qualitative data analysis program. Then, the items in Table 1 below were obtained according to the SWOT analysis sub-categories (strengths, weaknesses, opportunities, threats) and other (contributions, suggestions) categories.

#### IV. FINDINGS

The data obtained as a result of in-depth interviews with Akyazı health tourism stakeholders within the scope of the research are analyzed in Table 1 below under the SWOT analysis sub-categories. According to this;

**Strengths:** Participants argue that existing resources and opportunities should be discovered and used for the development and sustainability of health tourism and other types of tourism in Akyazı. In addition, the participants agree that the region will turn into a brand destination in the field of thermal health tourism with the systematic and integrated management and evaluation of existing opportunities. According to the information obtained during the interviews, the presence of plateaus, lakes, forested areas and endemic plant species unique to the region in Akyazı is considered as a strong aspect that offers tourists the opportunity to spend time with nature. The fact that Akyazı is one of the very few places with high temperature (60-80 degrees) thermal springs in Turkey is an opportunity that will provide a competitive advantage in the development of health tourism. In addition, as a result of underground water potential and drilling studies carried out by authorized institutions, new sources were discovered in various areas in the district. The fact that investments are directed to these places in the context of health tourism also provides convenience in terms of developing the health tourism potential. It is also thought that its geographical and geopolitical location would provide an opportunity for the development of health tourism in Akyazı. The fact that the region is located on the E-5 and the North Marmara highway is considered among the strengths. Especially being located in the temperate climate zone are evaluable opportunities for the creation and revive the existing tourism potential in Akyazı. The fact that not only health tourism but also other types of tourism (highland, eco, geriatrics, disabled, etc.) can be developed in Akyazı will offer various socio-cultural alternatives to health tourists who come for treatment and rehabilitation. Thus, with its strengths, Akyazı will provide incoming tourists with versatile and integrated tourism options.

**Weaknesses:** According to the interviewees, the most important of the current negativities in the development of the health tourism potential in Akyazı is the lack of necessary promotion and marketing activities. Promotion activities are not based on a strategic plan and inadequate, especially since the region needs investment in the field of health tourism and creating a customer profile and destination image. Apart from this, the lack of activity areas that can be promoted, support health tourism and attract the attention of incoming tourists and investors is one of the deficiencies in the development of tourism in Akyazı. In addition, the most important feature of a tourism destination in terms of positively affecting the perception of investors and customers is the attractiveness and modernization of environmental/urban design. However, it is stated by the research participants that Akyazı is quite inadequate in this regard. In the city, there are mostly slum-style construction, unplanned urbanization, urban transportation problems. Although there is a potential for the development of health tourism in the city, it is emphasized that the cooperation and communication

with the stakeholders necessary for its development is insufficient. In order to revive health tourism in the region and attract investors and customers, stakeholders do not have clear job descriptions and responsibilities, and joint activities and projects are not organized. The lack of institutions providing tourism and quality health services in the region and the lack of qualified personnel are considered among the obstacles to the development of health tourism in Akyazı. In addition, the lack of public knowledge, interest and support about the activities for the development of health tourism in Akyazı is also expressed as one of the current weaknesses.

**Threats:** Interviewees state that there are some environmental factors that are effective in the development of health tourism in Akyazı and that their negative effects on Akyazı can be prevented if required precautions are taken. Accordingly, one of the most important external environmental threats in health tourism in Akyazı is the directing of public and private sector investments to other nearby cities and districts. For this reason, the faster development of these places within the scope of health tourism compared to Akyazı is also considered as a threat. Apart from these, the presence of factories around the district, the deterioration of natural beauties and the increase of environmental pollution pose a great risk. Supporting industry, agriculture, etc. sectors, instead development of the service sector (tourism and health, etc.) for both employment and capital investment in the regions is one of the factors that threaten the development of health tourism in Akyazı. In addition, socio-economic events in Turkey and in the world (economic crisis, epidemic, etc.), decrease the income level / solvency of individuals, social and political instability in neighboring countries are expressed as external environmental factors that may adversely affect the current customer-investor potential by interviewees.

**Opportunities:** Participants see that providing policies and incentives for local regions as an opportunity to facilitate access to communication and technological opportunities with globalization, and to develop global health tourism mobility between Turkey and international organizations. In addition, the development and facilitation of transportation facilities, the increase in the average life expectancy of people, the increase in the demand for protective, supportive and complementary health services rather than medical services are also seen as opportunities.

**Table 1: SWOT Analysis of Akyazı Related to Thermal Health Tourism**

I: Interviewees												
STRENGTHS	I 1	I 2	I 3	I 4	I 5	I 6	I 7	I 8	I 9	I 10	Number	%
Having natural beauties	+	+	+	+	+	+	+	+	+	+	10	100.0
Co-development of other types of tourism (nature, plateau, thermal, etc.)	+	+	+	+	+	+	+	+	+	+	10	100.0
Having thermal spring waters	+	+	+	+	+	+	+	+	+	+	10	100.0
Favorable climatic conditions		+	+	+	+	+	+	+	+	+	9	90.0
Geographically close to major cities	+	+		+	+	+	+	+	+	+	9	90.0
It is located where intercity transportation networks (e-5, Northern Marmara highway) are developed.	+	+		+	+	+	+	+	+	+	9	90.0
Finding investment areas	+	+	+	+	+		+	+	+	+	9	90.0
The faculty providing education in the field of health services and tourism is located in Akyazı	+	+	+	+	+		+	+	+		8	80.0
Currently, projects in the field of health tourism have been developed		+	+	+	+		+	+	+	+	8	80.0
The high quality of thermal waters to support treatments			+	+	+	+	+	+	+		7	70.0
Carrying out organic farming activities that will contribute to tourism		+	+			+	+				4	40.0
Organization of local entertainment-festivals		+	+								2	20.0

**Table 1: SWOT Analysis of Akyazı Related to Thermal Health Tourism - Continue**

<b>WEAKNESSES</b>												
Insufficient promotion and marketing activities of the city	+	+	+	+	+	+	+	+	+	+	10	100.0
Lack of places to have a good time (cafe, park, restaurant)	+	+	+	+	+	+	+	+	+	+	10	100.0
Inadequate transportation and infrastructure in the city	+	+	+	+	+		+	+	+	+	9	90.0
Lack of qualified personnel required for tourism and health tourism activities	+	+	+	+		+	+	+			8	80.0
Insufficient cooperation between institutions	+	+	+	+	+	+		+	+		8	80.0
The city has an unattractive structure in terms of urban design.		+	+	+	+		+	+		+	7	70.0
Lack of quality certified chain and group style hotels and health institutions				+	+	+	+	+	+		6	60.0
Low potential of young population who can work actively	+		+	+				+	+	+	6	60.0
Insufficient number and quality of thermal facilities			+	+	+		+		+	+	6	60.0
Having a negative image of the city among the society	+	+	+				+	+		+	5	50.0
Inability of local governments to provide the necessary resource allocation			+	+	+				+	+	5	50.0
Health services are limited to state hospitals only.	+			+	+	+			+		5	50.0
Lack of public interest and support				+	+		+	+	+		5	50.0
Restricted intercity public transport services, no terminal	+					+			+	+	4	40.0
<b>THREATS</b>												
Increased private and public investments in nearby cities and towns	+	+	+	+	+	+	+	+	+	+	10	100.0
Being a first degree earthquake zone	+	+		+	+	+	+	+	+	+	9	90.0
Nearby provinces and districts are more developed in the field of health tourism		+	+	+	+	+	+	+	+	+	9	90.0
Factories operating in the immediate vicinity intensively	+	+	+	+			+	+	+	+	8	80.0
Giving more importance to other sectors (industry, agriculture, etc.) in the region			+	+	+	+	+	+	+	+	8	80.0
The out-migration of the city			+	+	+	+		+		+	6	60.0
Decrease in the income level of the society					+	+	+	+	+	+	6	60.0
Negative events like political etc. in neighboring countries affecting Turkey as well					+		+	+	+		4	40.0
Inadequate legislative regulations		+	+								2	20.0
Uneven distribution of thermal water resources	+								+		2	20.0

**Table 1: SWOT Analysis of Akyazı Related to Thermal Health Tourism – Continue**

<b>OPPORTUNITIES</b>													
Expansion of communication and information resources (social media, web, etc.)		+	+	+	+	+	+	+	+	+	+	9	90,0
State incentives for the development of cities in the direction of tourism	+		+	+	+	+	+	+	+			8	80,0
Having public-private partnerships for the development of health tourism	+		+	+		+	+	+	+			7	70,0
Development and facilitation of transportation systems around the world		+		+	+	+	+		+	+		7	70,0
The aging of the world population and the prolongation of life expectancy				+	+	+	+	+	+	+		7	70,0
Increasing health tourism education in universities	+		+			+	+	+				5	50,0
The services provided in health tourism are covered by the general health insurance	+			+		+		+	+			5	50,0
Increasing demand for complementary alternative health services								+	+	+	+	4	40,0

*I: It represents the interviewees. Within the scope of the privacy of personal information, the participants were coded as I1, I2, ...*

***Do you have any work for the development of health tourism?***

As a result of the interviews, it was determined that interviewees carried out certain studies within their own authority and duty responsibilities. The participants, who do not have any study, stated that they are willing to establish partnerships and contribute to the projects created and supported within the scope of the state-private sector.

According to the statements of the interviewees, it was learned that the establishment of a physical therapy and rehabilitation center, which can also be benefited from thermal waters, in order to develop health tourism in Akyazı, was carried out and zoning plans were prepared. It has been determined that the establishment location of this center has been allocated, other tourism areas that will provide support have been started to diversify, a 4-year undergraduate education faculty has been established in order to create employment power, and relations with senior management have been kept alive for capital needs.

***If Tourism and Health Tourism develops, what will be its contribution to the region?***

In the interviews with the research participants, it was stated that Akyazı could become a brand city in the field of health tourism if the projects carried out are completed and the new plans planned to be created are implemented. It has been stated by the participants that Akyazı's gaining a destination characteristics in the field of thermal health tourism contributes to the economic development and modernization of the region, to increase its social-cultural interaction, to gain international recognition, to turn it into a center of attraction for customers and investors, to increase health indicators, to increase access to quality health services, to prevent local people from emigration, to the creation of a qualified health workforce potential and to increase in income and development of different sectors (travel tours, restaurant shopping businesses, banking, accommodation businesses, etc.) (See Table 2).

**Table 2: Contribution of Tourism and Health Tourism to the Region**

CONTRIBUTIONS	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	Number	%
It will provide economic development.	+	+	+	+	+	+	+	+	+	+	10	100.0
It will also enable the development of different sectors (accommodation, transportation, etc.)	+	+	+	+	+	+	+	+	+	+	10	100.0
The income of local people and tradesmen will increase.	+	+	+	+	+	+	+	+	+	+	10	100.0
Social activity areas will increase.	+	+		+	+	+	+	+	+	+	9	90.0
A modern city image will be created by contributing to the socio-cultural development of Akyazı.	+	+	+	+	+	+	+	+		+	9	90.0
It will attract the attention of new investors and develop investment projects.	+	+	+	+		+	+		+	+	8	80.0
The increase in social-cultural interaction provides the development of the region in this sense.			+	+	+	+	+	+	+		7	70.0
If the foreign market develops, foreign exchange flow accelerates local development.		+	+	+	+	+			+		6	60.0
It will create employment for the unemployed and young population.	+			+			+		+	+	5	50.0
It will increase the value of property and lands.		+			+	+				+	3	30.0
It will increase the customer potential in the field of health tourism.				+		+	+		+		3	30.0

***What are your suggestions for the development of health tourism in Akyazı?***

In the interviews held with 10 stakeholders in the field of health tourism in Akyazı, they were asked to provide their suggestions and opinions in order to shed light on this research and the practices to be carried out. With the data obtained, it was determined that the interviewees stated that strategic partnerships and collaborations should be provided and coordination between institutions should be increased in order to develop health, thermal and other types of tourism in Akyazı. Many suggestions such as removing the negative perception about Akyazı from the 1970s, which is not valid today, increasing the promotion of the city with the effective use of new communication technologies, determining the priorities in health services by considering the health needs of the world, country and local people, structuring the facilities to provide health services according to international standards, making feasibility and cost/profit analyzes on resource allocation, ensuring the controlled use of natural resources by taking them under protection, creating a modern and orderly city environment by creating urbanization/structuring plans, revitalizing social-cultural activity areas, etc. are offered.

**Table 3: What Can Be Done for the Development of Tourism and Health Tourism in Akyazi**

SUGGESTIONS	I 1	I 2	I 3	I 4	I 5	I 6	I 7	I 8	I 9	I 10	Number	%
To increase cooperation and communication between institutions.	+	+	+	+	+	+	+	+	+	+	10	100.0
Increasing the promotion of the city	+	+	+	+	+	+	+	+		+	9	90.0
Conducting feasibility studies (cost, capital, market research)		+	+	+	+	+	+	+	+		8	80.0
Protection and development of the natural structure of other tourism areas	+	+		+	+	+	+	+		+	8	80.0
Renovation and modernization of existing facilities.	+	+	+	+	+	+			+		7	70.0
Ensuring the employment of qualified and expert personnel		+			+	+	+	+	+	+	7	70.0
Pilot implementations of projects and research			+	+	+	+		+	+		6	60.0
Utilizing government incentives		+	+	+			+	+	+		6	60.0
The destruction of negative perception from the 1970s, which is not valid today.	+	+	+				+			+	5	50.0
Based on compliance with International Standards				+	+	+	+		+		5	50.0
Informing, raising awareness, participation and support of the local people	+					+	+			+	4	40.0

**V. CONCLUSION AND RECOMMENDATIONS**

It is known that there is the potential to carry out various tourism activities such as Health, thermal, nature, etc. in Akyazi (Sandıkçı and Özgen, 2013). Provided that Akyazi's natural beauties, healing water resources and climatic conditions are evaluated and used in the context of health tourism from different perspectives, it will become an important tourism attraction center and gain a health tourism destination characteristic. In this context, a SWOT analysis was conducted by conducting in-depth interviews with the relevant stakeholders in the region in order to reveal the health tourism potential of Akyazi from a strategic point of view. Based on the results obtained, various suggestions were presented.

Akyazi's most important strengths revealed with the SWOT analysis conducted based on stakeholder views in terms of health tourism potential are It has therapeutic, high-temperature geothermal springs, natural beauties such as plateaus, lakes, forest areas, plant diversity, etc. In this context, Akyazi should use its existing natural resources as a tourism tool within the permissions and controls of the authorized institutions without harming the environment. E.g; The effect of thermal spring water resources, which are determined other than Kuzuluk thermals, on treatments should be determined by pilot studies, and their preferability should be ensured for patients and institutions by making cost-benefit analyzes. In literature, it is stated that using spring water accelerates healing process after medical treatment and customer loyalty in application centers is high (Çelik, 2016). The results of the analysis should be announced in national and international broadcast and press channels, used within the scope of marketing activities, and the city should be promoted in this sense. In addition, in the context of health tourism and thermal tourism, target markets should be determined and information should be given about the natural beauties in the surrounding area. When choosing the target market, big cities with high potential for both customers and investors and countries with similar socio-cultural aspects should be selected. Tools such as social media, websites, notice boards, brochures should be preferred for promotional activities. Forest hiking trails, camping areas, recreation facilities, social life areas, etc., can be installed through organizations such as NGOs and municipalities in order to provide a health tourism experience intertwined with nature (Piri, 2012). In international studies, it is stated that there is a high increase in number of customers compared to

previous years, as corporate promotions of complementary treatment centers with thermal tourism content are made on the web and social media. In addition, in project for revitalization of thermal tourism in Kayseri, local governments have taken initiatives to increase attractiveness of region by organizing social-cultural activities for tourists. It has been stated that satisfaction of health tourists about these activities and environmental regulations has increased (Bayram and Akkūlah, 2020).

According to the SWOT analysis, Akyazı's deficiencies in terms of the development of tourism, health tourism and other tourism activities was determined as insufficient city promotion and modern urbanization, lagging behind the existing thermal facilities compared to other regions and facilities around the world in terms of number and quality, not meeting thermal health tourism standards, having no institution other than the state hospital that provides direct health services, the lack of qualified employees who can offer health and thermal cure services together, the inadequacy of investments and cooperation needed for the development of tourism, and the reluctance of the public to support. First of all, in order to attract investors to the region on thermal tourism and health tourism facilities, relevant stakeholders should promote the region through collaborations and meetings. For example, sector managers, non-governmental organizations, health workers, etc. should be able to hold panels, seminars, congresses, etc. for the development of health tourism in Akyazı, by coming together and inviting special guests. Promotional activities can be organized for potential customers, various campaign packages and accommodation opportunities can be offered (Bayat and Yalman, 2020; İnci and Sancar, 2017). In addition, not only local governments should be authorized for systematic urbanization and construction, but also the relevant authorities of the ministries should be mobilized. The reports and projects needed for this should be prepared and presented to those concerned, and their awareness of Akyazı should be increased. High quality and eligible activities that will provide differentiation in the region should be developed for the new thermal and health facilities to be established. Employment of well-equipped and experienced healthcare professionals who can follow the before and after treatment of patients who come to the facilities for treatment and apply thermal cure methods to support the treatment process should be provided (Heung and Kūçūkusta, 2013). For this, the potential of university students having education in the field of health sciences in Akyazı should be evaluated. In addition, it is very important to get the support of the public for the development of health tourism in Akyazı. To this end, public information can be provided, and their perceptions and expectations can be measured and evaluated using various scientific methods.

The opportunities and threats obtained by SWOT analysis within the scope of the research are the factors that should be evaluated in terms of Akyazı's development in health tourism. In this context, the opportunity to benefit more from government incentives in the field of health tourism should be created, and coordination between local governments and the Ministry of Health should be ensured for the implementation of the public-private partnership model proposed in the Health Transformation Plan in Akyazı (Zengin and Eker, 2016). Thermal therapies for the care of the elderly, cures, recreational activities that facilitate life for individuals with disabilities, nutritional counseling for nutritional disorders, wellness programs for gaining vitality and eliminating mental and psychological disorders should be offered (Choi and Sırakaya, 2006). While planning thermal and health tourism activities, developing technologies in the world should be closely followed and included in the provision of health services by purchasing/leasing. Health and thermal tourism areas should be prevented from being affected by environmental negativities. Particularly, the factories operating extensively in Akyazı should be trained on waste management and environmentally friendly production practices, and protected areas should be created to prevent damage to natural beauties.

One of the important limitations of this research is that data was collected from a limited number of participants in order to evaluate thermal health tourism potential of Akyazı. In addition, study is in qualitative research design and face-to-face interviews were conducted with local governments to collect data. In future studies, quantitative research can also be conducted with local health tourism stakeholders using the survey method. The perception and support of local people is also important in terms of sustainability of tourism activities in a region. Further studies can be done to measure the health tourism perception and support of Akyazı people.

**Ethical Approval:** The research protocol was approved by the Sakarya University of Applied Sciences Ethics Committee with the decision dated 31.03.2021 and numbered E-26428519-044-8871.

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