

Article

A Strategic Approach to Sustainable Tourism Development Using the A'WOT Hybrid Method: A Case Study of Zonguldak, Turkey

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Abstract: Nowadays, tourism-led economic growth has become a major outcome of the public policy. Researchers have recently begun to address the development of tourism from a perspective that is based on economic, cultural, social, and environmental sustainability. This paper aims at presenting a strategic approach that can help to develop sustainable tourism at touristic destinations. In order to pursue our aim, the A'WOT (AHP-SWOT) hybrid method, developed in combination with SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis and the AHP (Analytic Hierarchy Process) method, was used. SWOT analysis was used to determine the significant strategic factors, and the AHP method was applied to prioritize these factors. The province of Zonguldak, located in Northwest Turkey, was chosen as the research area to suggest tourism strategies that can be sustainable by means of the application of the A'WOT method. Proposed strategies for the research area are related to product diversification and event management, the image of the destination, a sustainable visitor management system, promotion and branding strategies, partnerships, and cooperation. The results illustrate that the dependent economic structure may be broken down with the development of the tourism industry and, therefore, that some strategic initiatives are required to achieve sustainable tourism in the province.

Keywords: sustainable tourism; strategic planning; A'WOT; TOWS matrix

1. Introduction

As the impact of sustainable development on the world's future is better understood, each industry is encouraged to find a solution for sustainability in its own field. Sustainability puts its "attention on a set of ethical values and principles, which guides action in a responsible and harmonious way, incorporating the environmental and societal consequences of actions, as well as economic goals" [1]. The prefix 'sustainable' is currently being used in various fields, such as tourism, architecture, agriculture, and the development of communities [2]. Thus, sustainability has become one of the most important strategic issues for many industries [3]. For example, the tourism industry, which is one of the world's fastest-growing industries, is now trying to move towards sustainable and responsible practices [4]. Besides this, tourism, which is regarded as an indispensable industry for both economic and social development, may have a positive effect on employment, gross revenue, and production. On the other hand, it may have negative effects on the environment [5]. If tourism is not planned and managed properly, it may cause permanent damage to the physical, social, cultural, and economic environment of a tourist destination [6]. That is why it is important to focus on sustainable tourism as a significant issue. Such reasons as disruption of the ecological balance due to global warming, the loss of social values, and the failure to preserve natural, historical, social, and cultural assets make sustainable tourism a necessity [7].

However, in order to achieve a more sustainable form of tourism, there is a need for a more holistic perspective that allows us to consider all of the sectors and resources upon which tourism relies [8]. Furthermore, sustainable tourism has a wide variety of definitions. For instance, sustainable tourism can be defined as “tourism that takes full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities” [9] (p. 12). In this way, sustainable tourism should ensure an optimal use of environmental resources, respect the socio-cultural characteristics of the local communities, and yet provide socio-economic utility to stakeholders [9]. Similarly, Müller [10] (p. 132) outlined that the objective of sustainable tourism is “to influence economic health, subjective well-being of the locals, unspoiled nature, protection of the resources, healthy culture, and optimum satisfaction of guest requirements”. Another definition of sustainable tourism is the one provided by Hunter [11] (p. 851), who defined sustainable tourism as “an adaptive paradigm which legitimizes a variety of approaches according to specific circumstances”. According to Niedziolka [12] (p. 160), sustainable tourism is “all forms of activities, management, and development of tourism that preserve natural, economic, and social integrity and guarantee maintenance of natural and cultural resources”. The majority of these definitions emphasize that people are responsible for respecting and preserving the economic, environmental, and socio-cultural balances [13–16].

For many years, the sustainable management of tourism has been a challenge for residents and tourists. There has been a radical change in the tourism perceptions of local people, and mass tourism has become a local political issue [17]. This can also be noticed in the emergence of the terms tourism-phobia and overtourism, which have developed from the growing evolution of unsustainable mass-tourism practices. Tourism-phobia describes the social discontentment that has arisen in response to the pressure of tourism [18]. Overtourism is defined by the United Nations World Tourism Organization (UNWTO) [19] (p. 4) as the impact of tourism on a destination that excessively influences the perceived quality of life of the citizens as well as the quality of the visitors’ experiences in a negative way. If measures are not taken in terms of sustainability in tourism, environmental problems will be encountered and this will negatively affect both the local population and the number of tourists. In sum, UNWTO [19] (p. 3) states that “tourism will only be sustainable if developed and managed considering both visitors and local communities”. As can be seen, the protection of natural, historical, and cultural resources and long-term sustainability in tourism are becoming important for all countries. Therefore, a systematic approach is needed in the design of sustainable tourism development planning.

The main purpose of this study is to present a strategic approach that can contribute to the sustainability of tourism at touristic destinations. In order to achieve this purpose, the A’WOT (AHP-SWOT) hybrid method was used in this study. The province of Zonguldak in the West Black Sea Region of Turkey was chosen as a case study. Hence, the sub-purpose of this study is to propose sustainable tourism strategies for Zonguldak using the A’WOT method. To achieve this sub-purpose, both the internal and external factors affecting the tourism industry in Zonguldak were determined in advance, and the priorities of these factors were also calculated. The strategy proposals for sustainable tourism in Zonguldak were formulated by using the TOWS (Threats, Opportunities, Weaknesses, Strengths) matrix together with the region-specific vision statement and the main sustainable tourism goals. The outcome may also have implications for the implementation of future policy for the stakeholders in the region. Moreover, the findings within this study may also be applicable to other destinations where sustainable tourism can be developed.

2. Literature Review

Numerous authors have discussed sustainable tourism as a topic [20–22]. However, a relatively lower number of studies have focused on the development of strategies for sustainable tourism. It will be useful to provide a brief review of the literature on sustainable tourism development strategies from the standpoint of the purpose of this study.

Different regions have been subject to studies related to sustainable tourism development strategies. Using the benchmarking method, Helmy [23] evaluated the Egyptian tourist planning mechanism from the sustainability perspective. He demonstrated that the tourist planning system lacks sustainable tourism development programmes and more cooperative efforts were necessary for the Egyptian tourist planning mechanism in order to achieve sustainability in tourism. Font and Serra [24] improved sustainable tourism marketing strategies in Barcelona. They emphasized the criteria of sustainability, such as minimizing the negative environmental and social impacts, reducing the carbon footprint of transport, normalizing the behavior of the visitors, reducing touristic overcrowding, compensating for the negative impacts caused by tourism, serving the destination, and serving the needs of the city. Grytsiuk et al. [25] built a strategy for the sustainable development of tourism in the Carpathian region of Ukraine under the conditions brought about by modern global changes. The basis of the sustainable development tourism strategy was to enhance the life quality of the inhabitants of the Carpathians. They also emphasized the formulation of an organizational development management mechanism of tourist destinations and the construction of an effective model of cooperation between government, business, and society. Another example is the one offered by Cortez [26], who presented the strategies that were adopted by the Government of the State of Bolivia to improve sustainable tourism. She highlighted that sustainable tourism development was linked to the community's self-actualization and requires planning. Mondal [27] determined that the present tourism activities in Bangladesh are unsustainable and analyzed a way to attain a sustainable tourism industry in Bangladesh using the Strengths, Weaknesses, Opportunities, Threats (SWOT) analysis and a TOWS matrix. To develop a sustainable tourism industry, he suggested several strategies, such as ensuring the security of tourists, planning for sustainable economic profits, more environmental regulations, notifying people about sustainable tourism, and the development of the required infrastructure. He also implied that the findings of the study would help tourism stakeholders to analyze present problems of tourism. Feili et al. [28] used the SWOT approach and fuzzy logic to find sustainable tourism development strategies in Iran. Their strategies included planning the progress of transportation in the region, informing people about tourism developers' activities in the media, providing accommodation for overnight and long stays, using professional managers in various tourist places, and implementing plans related to ecotourism. Rezapouraghdam and Esmaeili [29] evaluated SWOT for sustainable desert-tourism development in Khara Desert, Iran. They tried to provide a holistic sustainable strategic planning methodology for tourism authorities and practitioners in Iran. They concluded that if desert-tourism drew enough attention from tourism authorities, it would be seen as having a great potential for contributing to the economy, the prosperity, and the sustainable development of the environmental societies in Iran. They stressed that the most important step to be taken was to prepare a sustainable management master plan for the region. Sulistyadi et al. [30] used the SWOT analysis and a quantitative strategic planning matrix to build a sustainable tourism development model in their study and applied this model to the Thousand Islands Tourism Area, Jakarta. As a result, they summarized their tourism development strategies as strengthening the commitment of the stakeholder, increasing the role and capabilities of the local communities, re-enforcing the principles of sustainable tourism, and developing responsible tourism marketing. They also highlighted that the role of destination management organizations leads the applied tourism development strategy model.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) [31] is also counted among the institutions that use SWOT in order to present sustainable tourism strategies for better management and long-term planning on core issues in Bali, Indonesia. The resulting strategy included a shared vision, strategic objectives, and an action plan to be implemented by stakeholders. Paunovic and Jovanovic [32] mentioned in their study that sustainable tourism was based on a holistic approach and a knowledge-based platform; thereby, all forms and approaches of tourism should be considered. They suggested a holistic approach for improving sustainable mountain tourism and collected the data through interviews with individuals for the development of sustainable tourism

in the German Alps. Indicators of sustainable tourism, cross-border cooperation, and stakeholder participation emerged as important themes for the practice of sustainable tourism. Stoddard et al. [33] suggested that tourism development organizations should adopt a triple-bottom-line framework, which includes economic, environmental, and social sustainability strategies to enhance sustainability. They pointed out that the triple-bottom-line framework could improve the strategic decision-making of tourism development organizations. Neto [34] focused on giving higher priority to the participation of the community and the reduction of poverty in developing countries for the development of sustainable tourism. According to him, the emphasis should be placed on a pro-poor tourism approach all over the world. He determined four major policy recommendations that could contribute to the expansion of the pro-poor tourism approach in developing countries. These policies were poverty alleviation at the center of national strategies, more opportunities for the poor to make use of tourism benefits and partnerships, and role of the international community. Reichel and Uriely [35] presented a conceptual strategic approach for sustainable tourism development in the Israeli Negev Desert. This approach was based on the assumption that developments in tourist demand associated with postmodern tourism are persistent. They combined cultural heritage and nature-oriented themes with simulated attractions in their study. Nowacki et al. [36] evaluated tourism development strategies in Poland, pointing towards strategic planning, the involvement of the stakeholders within the process, and sustainable development principles. They signified that there were real problems with implementing the principles of sustainable tourism in Poland and these policies must put into practice. Besides this, they emphasized that sustainable development must be understood by all stakeholders. To develop sustainable tourism in the Cameron Highlands of Malaysia, Aminu et al. [37] presented an approach based on the Analytic Network Process (ANP) and a Geographic Information System (GIS). They have demonstrated that the integration of ANP and GIS is useful in that it provides analytical tools for spatial planning with regards to sustainable tourism. Tsaur and Wang [38] evaluated sustainable tourism development using the Analytic Hierarchy Process (AHP) and Fuzzy Set Theory and illustrated how it could be implemented in the Green Island in Taiwan. These authors highlighted that the development of tourism could be beneficial for the economy but harmful for the environment and, therefore, a well-designed plan for tourism development was necessary. They also pointed out that tourism authorities have to pay more attention to the protection of the environment and tourism business has to be operated with an ecological consideration.

Several authors have specifically sought to develop sustainable tourism strategies for national parks. For example, Goodwin [39] explored the opportunities for local economic development through tourism at the Komodo, Keoladeo, Gonarezhou, and Puerto Princesa National Parks, and concluded his study with a list of actions. These actions were related to non-capital-intensive enterprises, tourism based on local skills and technology, enclave practices, partnerships between public and private sectors, institutions, and revenue-sharing policies. Cottrell and Cutumisu [40] focused on the analysis of two national parks in Sweden and Romania and examined planning authority and other tourism stakeholders' perceptions of a sustainable tourism development strategy with in-depth interviews. Candrea and Bouriaud [41] assessed the benefits of and threats to sustainable tourism development in Romania's Piatra Craiului National Park using a stakeholder analysis. They identified the main challenges that tourism brings to the protected area in Piatra Craiului via interviews with local stakeholders and revealed the necessity of implementing sustainable tourism strategies in this park. The ecotourism practice was identified as the best solution to solve the problem of sustainable tourism development in this park. The authors also recommended three main policies for sustainable tourism: systematic planning, a private–public partnership, and local authorities and protected area administration. Garcia-Melon et al. [42] proposed strategies with regard to the local, social, and natural environment for the coastal national parks of Venezuela using the ANP technique to help managers make decisions about the sustainability of national parks by taking experts' and stakeholders' opinions into account. They stressed that ANP was a suitable tool for assessing sustainable tourism development strategies. Reihanian et al. [43] addressed the question of whether the current tourism activities in

the Boujagh National Park of Iran comply with the sustainability requirements or not. They used SWOT analysis and a TOWS matrix to identify the required management strategies so as to develop the tourism in the park.

The literature section includes sustainable tourism strategies that have been developed in different regions and national parks by making use of a variety of techniques and approaches, such as SWOT, the ANP, a GIS, the AHP, fuzzy logic, benchmarking, a quantitative strategic planning matrix, a TOWS matrix, and interviews. In these studies, sustainable tourism strategies can be generally categorized into three groups: economic, social, and environmental. Some authors have made attempts to evaluate present tourism planning of the regions and have suggested new strategies for a sustainable form of tourism. In addition to developing a strategy, several authors have also emphasized the significant role of stakeholders and experts in the development of sustainable tourism and the necessity of a systematic planning or a holistic approach.

In this study, a strategic approach for sustainable tourism development is presented by means of an integration of SWOT analysis and the AHP method to help managers make decisions about regional sustainable tourism. The province of Zonguldak, which is located in the West Black Sea Region of Turkey, is discussed as a destination area. In this context, SWOT factors were first determined through expert opinions. After that, these factors were prioritized via the AHP method. Finally, regional sustainable tourism development strategies are presented by means of the TOWS matrix in accordance with the region-specific vision statement and the main sustainable tourism goals.

3. Materials and Methods

3.1. The Research Area

Turkey, which has a high potential for tourism development and offers different types of tourism, is among the top 10 countries in international tourist arrivals and among the top 17 countries in international tourism receipts [44]. However, as a result of mass-tourism activities in Turkey, we face a mass concentration at Mediterranean and Aegean coastal areas, a distorted urban development, a lack of infrastructure, and also environmental problems [45]. In addition, the rapid growth of the tourism industry has transformed tourism trends and policies. The current trends in tourism show that tourists seek more interaction, more exploration of other cultures, more experience, more emotional connections, and more authenticity [46]. Turkey has various natural, cultural, and historical resources, and it is known as a major center of attraction for foreign tourists. In recent years, Turkey has shifted to special interest types of tourism by adopting a sustainable approach to tourism and by distributing tourism activities throughout the year. In particular, the West Black Sea Region of Turkey is suitable for the development of special interest tourism. The climate and nature of the West Black Sea Region will also increase the preference rate of the region in the future. The coasts of this region make it suitable for coastal tourism, and its forests, plateaus, caves, canyons, and waterfalls make it appropriate for ecotourism. Additionally, it is also suitable for cultural tourism thanks to its ancient cities (Filyos Tios, Karabuk-Hadrianapolis, etc.), its examples of civil architecture (Safranbolu houses, Bartın houses, etc.), and its cultural items and local values (Devrek walking sticks, wire breaking, etc.) [47].

In this study, the province of Zonguldak, located in the West Black Sea region of Turkey, was chosen as the research area. This decision was influenced by the fact that the preferences of tourists for special interest tourism will increase the demand for tourism in this region. Moreover, improper tourism policy practices can damage natural and cultural resources. Given the density of tourism activities throughout Turkey, the city of Zonguldak is among the cities that have not attracted the attention of natural tourism planners and tourism organizations so far. Zonguldak also offers a wide range of natural formations, such as caves, forests, and mountain pastures, which have not been considered for tourism activities yet. Within the 2014–2023 vision of the West Black Sea Region Plan [48], Zonguldak has been considered “to be a region that has broken the dependent economic structure and improved the quality of life”. The three main principles for achieving this vision are multi-sectoralism,

participation, and sustainable development, and the two main axes for development are “sustainable social development” and “sectoral diversity supported by innovation and entrepreneurship”. This raises the following questions for the research area: Is it possible to evaluate the tourism industry in terms of sectoral diversity? What is the current status of the tourism industry? What are the most important internal and external factors affecting the tourism industry? Which strategies can be developed for sustainable tourism? The case study tries to find answers to these questions. The region is well-known for being rich in hard coal, its underground resources, and its iron and steel industry. Although the industrial activities in the region are still predominantly based on the mining and iron and steel industries, the employment rates have begun to decline due to the difficulties experienced in mining. This has made unemployment the biggest problem of the region, and the cause of unemployment is mainly the failure to achieve sectoral diversity. That is why it is of vital importance to change the economic structure in the region, of which development currently rests on the mining, iron, and steel industries. It is also crucial to create new employment areas in other sectors that are starting to take off within the region. The sectors that can play a critical role in the economic and social development of the region are machinery manufacturing, the ship industry, the auto supplier industry, and the tourism industry [48]. The region has the potential to be an important tourist attraction, especially in terms of special interest tourism types. Within the scope of the West Black Sea Corridor project, which was presented by the Ministry of Culture and Tourism [45], the diversification and development of tourism was established as the priority area [48]. This decision can be implemented in the province of Zonguldak by considering the following elements.

In the region, the demographic characteristics of the urban and rural areas are very close to each other. In 2018, the population of Zonguldak was 599,698, of which 49.58% are male and 50.42% are female [49]. Fifty-two percent (52%) of Zonguldak is covered with forests and it is rich in natural attractions, which provide its inhabitants with the opportunity for hunting. The coastline and beaches along the Black Sea, the caves, and the flora, which remain green throughout the year, can also be counted among the natural resources of the province. There are plenty of places in Zonguldak with great potential for trekking, photo safaris, angling, and hunting activities. Besides this, Zonguldak is one of the leading cities in Turkey for cave formations, and nearly all of the caves in Zonguldak are open to the public. In addition, mining, weaving, embroidery, and woodworking are region-specific activities [50]. The city is well-known for coal mining, since it has the country's largest coal reserves. In this context, the Zonguldak Mining Museum, the first mining museum in Turkey, has been exhibiting the tools and materials that are used in mining activities. The region is particularly rich in terms of natural tourism resources, and there are several tourism types in Zonguldak that can still be developed, such as tableland tourism, botanical tourism, butterfly observing, cycling tourism, trekking, rafting, cave tourism, and cultural tourism [51]. Zonguldak has been known as an industrial city since the first years of the Republic, with tourism largely overlooked until now. It is believed that the reason why tourism is ignored not a lack of potential, but rather a lack of entrepreneurship, infrastructure, and services [48].

3.2. Methods

In this study, the A'WOT method and a TOWS matrix were employed to suggest sustainable tourism strategies for the tourism industry in Zonguldak province, Turkey. The key strategic factors were determined by means of SWOT analysis; the decision hierarchy was built through the AHP; the priorities of SWOT factors and groups were calculated via AHP; and the strategies were developed using a TOWS matrix by integrating the region-specific vision statement and the main sustainable tourism goals. The flow diagram of the method is shown as in Figure 1.

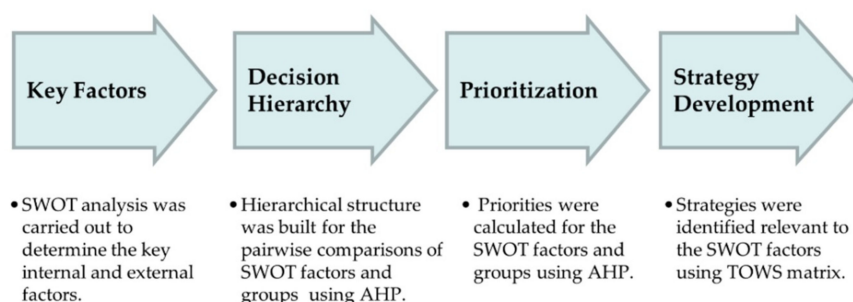


Figure 1. The flow diagram of the applied method. SWOT, Strengths, Weaknesses, Opportunities, Threats; AHP, Analytic Hierarchy Process; TOWS, Threats, Opportunities, Weaknesses, Strengths.

3.2.1. The A'WOT Method

The A'WOT method, which combines the AHP and SWOT analysis [52], is an appropriate method for situations of strategic planning. The idea while using a hybrid method is to evaluate SWOT factors and determine their intensities. The steps of the A'WOT method are listed below [53]:

- a SWOT analysis is carried out;
- pair-wise comparisons between SWOT factors are carried out within every SWOT group using AHP;
- pair-wise comparisons are made between the four SWOT groups using AHP; and
- the results are utilized in the strategy formulation and in the evaluation process.

SWOT analysis is also an early stage of the strategic planning process that helps planners define their strategies and make decisions on the allocation of resources in pursuing those strategies. Problem structuring is a significant stage of the strategy formulation. It means that strategic proposals are closely based on the selected factors. In this case, determining internal and external factors is critical. SWOT analysis is “an effective means for analyzing internal and external environments. The analysis involves systematic thinking and comprehensive diagnosis of factors relating to a new product, technology, management, or planning” [54]. SWOT analysis provides us with knowledge regarding the situation and allows us to design procedures that may be deemed necessary for thinking in a strategic way [55]. Hence, it is a significant tool within situation analysis and it can also be used to collect essential strategic information on decision-making from various resources [56]. However, the importance of SWOT factors is not analytically identified and evaluated in conventional SWOT analysis [54,57]. Conventional SWOT analysis only supplies the basic framework for analyzing the decision-making process.

The aim of A'WOT is “to improve the quantitative information basis of strategic planning processes”. To address a prioritization, selection, or evaluation problem, the AHP method, which is the most popular technique for individual and group decision-making, can be utilized. The advantages of using the AHP in the SWOT analysis are the quantitative testing of SWOT factors and the inclusion of decision-making preferences for planning [58]. The AHP enables decision-makers to assign a relative priority to each factor through pair-wise comparison and assists in carrying out the SWOT analysis more analytically [52–54,59]. In the AHP, verbal expressions are given for providing a pair-wise comparison to decision-makers, and the reciprocal matrices are formed by converting linguistic labels into numerical values [60]. After the hierarchical structure is formed, pairwise judgments are assigned based on the nine-point scale shown in Table 1 to determine the relative importance of the factors.

Table 1. Saaty’s scale of relative importance [61].

Intensity of Relative Importance	Definition
1	Equal importance
3	Moderate importance of one over another
5	Essential or strong importance
7	Very strong importance
9	Extreme importance
2, 4, 6, 8	Intermediate values between the two adjacent judgments

The questionnaire, which consists of pairwise judgments, can be applied by face-to-face interviewing to “maximize the response rate and ensure that the AHP component was clearly understood by respondents” [62]. While selecting decision-makers, their knowledge, years of experience, and level of gain in society are important, not the sample size [63]. The notion of a single decision-maker or team approach can be used to solve the problem. The geometric mean is the correct way of averaging data for the team approach [64]. In making judgments, people cannot estimate the values precisely. Thus, the AHP allows for inconsistency [65]. After making all the pair-wise comparisons, the Consistency Ratio (CR) is determined for each comparison matrix. If it does not exceed 0.10, the CR is acceptable and a decision is made based on normalized values [66]. If the consistency ratio is found to exceed the limit, decision-makers should revise the pair-wise comparisons [67]. Finally, AHP represents the relative importance or priorities of the decision elements at each particular level [68,69]. These are utilized in the strategy formulation and in the evaluation process.

The A’WOT method has been widely used by different authors in different areas, such as forestry [52,53,70], agriculture [54], manufacturing [57], education [71], health services [72], energy [73], maritime [74], cultural industry [75], and tourism [76–81]. Kajanus et al. [76] have proposed a pioneering initiative in the field of tourism by means of the application of the A’WOT method. They centered the investigation of the present state of tourism in the regions of Yla-Savo in Finland and Kassel in Germany and suggested that alternative strategies could be defined in the next step of the planning process. Then, the A’WOT method was used to develop strategies for types of tourism, such as rural tourism [77], ecotourism [78,81], cruise tourism [79], and mountain tourism [80]. In this study, the A’WOT method has been used to develop strategies in the field of sustainable tourism.

3.2.2. The TOWS Matrix

The ultimate goal of a strategic planning process is “to develop and adopt a strategy resulting in a good fit between internal and external factors” [52]. After calculating the priorities of SWOT factors with the AHP, strategies can be developed in accordance with information obtained from this comparison. In the strategy development stage, the TOWS matrix, which is generally employed to assist information analysis in the process of systematizing strategic choices [82], can be used for this purpose. At this stage, strategy alternatives are presented taking into account the internal and external factors derived from the SWOT analysis. Table 2 shows the TOWS matrix suggested by Weihrich [83].

Table 2. The TOWS strategic alternatives matrix [83].

	Internal Strengths (S)	Internal Weaknesses (W)
External Opportunities (O)	SO: “Maxi-Maxi” Strategies Strategies that use to strengths to maximize opportunities	WO: “Mini-Maxi” Strategies Strategies that minimize weaknesses by taking advantage of opportunities
External Threats (T)	ST: “Maxi-Mini” Strategies Strategies that use strengths to minimize threats	WT: “Mini-Mini” Strategies Strategies that minimize weakness and avoid threats

SO, strength-opportunity; ST, strength-threats; WO, weaknesses-opportunities; WT, weaknesses-threats.

The TOWS matrix identifies four alternative strategy groups: Strength-Opportunity (SO), Strength-Threats (ST), Weaknesses-Opportunities (WO), and Weaknesses-Threats (WT). These strategies are derived by maximizing the strengths and opportunities as well as minimizing the weaknesses and threats. SO strategies aim at maximizing both strengths and opportunities, while ST strategies are based on the strengths that can deal with threats in the environment. WT strategies are created by minimizing both weaknesses and threats, while WO strategies attempt to minimize the weaknesses and to maximize the opportunities [83].

4. Results and Discussion

4.1. SWOT Analysis of the Tourism Industry in Zonguldak

In this study, the strategy development process in the tourism industry is presented analytically by utilizing the A'WOT hybrid method. The province of Zonguldak in West Black Sea Region of Turkey was selected as the case study and is discussed step-by-step. The first step of the case was to determine expert groups from different backgrounds. The expert groups consisted of managers of tourism and culture organizations, travel agency owners, hotel managers, local managers, and academics. The relevant factors of the internal environment (strengths and weaknesses) and external environment (opportunities and threats) were determined by selected experts working in the tourism industry as shown in Table 3.

Table 3. The SWOT Matrix for the tourism industry in Zonguldak.

Strengths (S)	Weaknesses (W)
S₁. Use of caves for tourism (Gokgol, Cehennemagzi, Inagzi, Sofular, Cayirkoy, etc.) S₂. Many natural beaches (Hisaronu, Turkali, Kapuz, Gobu, Degirmenagzi, Iliku, etc.) S₃. Historical remains (Eregli Castle, Heracles Palace, Cestepe Fener Tower, Byzantine Water Cistern, Tombs of Krispos, Hagia Sofia Church, Halil Pasa Mansion, etc.) S₄. Fauna and forest areas suitable for hunting tourism S₅. Organization of festivals (Eregli International Ottoman Strawberry and Culture Festival, Devrek Walking Stick and Culture Festival, Filyos Culture, Arts and Maritime Festival, etc.) S₆. Organization of scientific conferences (Coal Congress) S₇. Rafting activities in Devrek District	W₁. Inadequate infrastructure (transportation networks, accommodation, water systems, energy sources, etc.) W₂. A lack of promotional activities about historical, cultural, and natural riches W₃. Not being located on the transition path of road networks W₄. Inadequacy of coordination between institutions and a lack of communication W₅. A lack of traffic direction signs W₆. Recognition of Zonguldak as just a mining town and a lack of awareness about its tourism potential
Opportunities (O)	Threats (T)
O₁. Plateau potential (Buluklu plateau, Bacakli plateau, Aksu plateau etc.) O₂. Places for camping and caravan tourism O₃. Acceleration of restoration of the ruins of the Tios Ancient City of Filyos O₄. Establishment of Zonguldak Mining Museum O₅. Saltukova airport services O₆. Increased demand for local handicrafts and products (Devrek walking sticks, Elpek weaving products, figures made of metals, etc.) O₇. Implementation of the new incentive system	T₁. Environmental pollution T₂. Rapid and unplanned urbanization T₃. High humidity T₄. A lack of private entrepreneurship T₅. The tourism concept being more identified with the Aegean and Mediterranean regions in Turkey T₆. Failure to benefit from long-term coastal tourism because of the negative effects of sea and climatic conditions T₇. A lack of qualified staff due to migration

Source: Constructed by the author.

4.2. Building the Hierarchical Structure

In this step, the decision hierarchy was built for the pair-wise comparisons of SWOT factors and groups. There are three levels in the hierarchical structure (Figure 2). The first level (ultimate goal) is to develop regional sustainable tourism strategies. The second level (criteria) is the SWOT groups, and the third level (sub-criteria) is the SWOT factors.

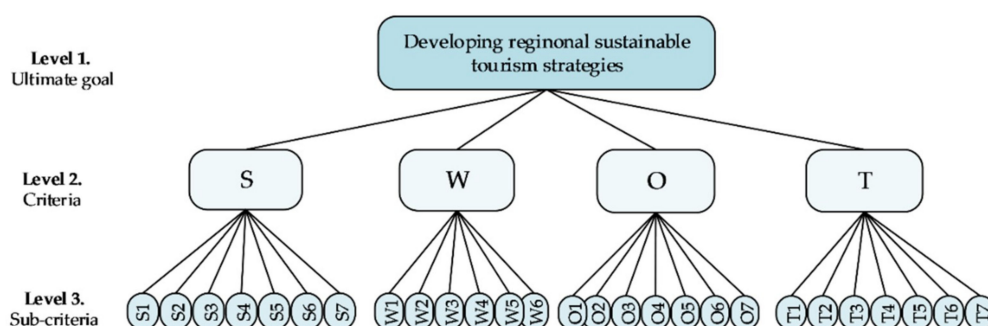


Figure 2. The hierarchical structure of sustainable tourism development for Zonguldak.

4.3. Prioritization of SWOT Factors and Groups

After constructing the decision hierarchy, the importance degrees of SWOT factors and groups were specified by experts. In this step, pair-wise comparisons were made and a questionnaire form consisting of 27 questions was prepared. Experts were interviewed face-to-face, and judgments were taken in the form of paired comparisons on the questionnaire. The questionnaire forms were conducted with experts closely related to the tourism industry in Zonguldak. Experts were selected by considering their expertise and experiences of working in the tourism industry. Ten participants from different backgrounds (one manager of tourism and culture organizations, one travel agency owner, three hotel managers, two local managers from municipal and provincial administrations, and three tourism academics) completed the questionnaire. While the tourism academics had at least a master's degree, the other participants of the expert group had more than 10 years of experience in their fields. To reach the group consensus, geometric means of expert opinions were used. The geometric means of all responses for each pair-wise comparison were analyzed using the Super Decisions (Version 2.8) software package. Furthermore, the consistency ratio (CR) was calculated for each comparison matrix and was found to be less than 0.10. Priorities of related factors are illustrated in Table 4.

Table 4. The priorities of criteria and subcriteria.

Criteria	Priorities for Level 2	Subcriteria	Priorities for Level 3	Criteria	Priorities for Level 2	Subcriteria	Priorities for Level 3
S	0.25	S ₁	0.4258	W	0.25	W ₁	0.3165
		S ₂	0.0653			W ₂	0.2943
		S ₃	0.0505			W ₃	0.0933
		S ₄	0.1362			W ₄	0.0688
		S ₅	0.0963			W ₅	0.0387
		S ₆	0.1136			W ₆	0.1885
		S ₇	0.1125	O	0.25	O ₁	0.0510
O	0.25	O ₂	0.0469			O ₂	0.0469
		O ₃	0.1837			O ₃	0.1837
		O ₄	0.1350			O ₄	0.1350
		O ₅	0.3183			O ₅	0.3183
		O ₆	0.1146			O ₆	0.1146
		O ₇	0.1504			O ₇	0.1504
T	0.25	T ₁	0.2997	T	0.25	T ₁	0.2997
		T ₂	0.1898			T ₂	0.1898
		T ₃	0.0314			T ₃	0.0314
		T ₄	0.1594			T ₄	0.1594
		T ₅	0.0859			T ₅	0.0859
		T ₆	0.1748			T ₆	0.1748
		T ₇	0.0591			T ₇	0.0591

According to Table 4, it was determined that the greatest strengths of the province in terms of tourism were the potential for cave tourism (0.4258) and the fauna and forest areas suitable for hunting tourism (0.1362). Zonguldak is known as one of Turkey's richest regions in terms of cave formations. The region has a rugged topography and is rich in flora, which make it possible for various wild animals to shelter. There are wild animals, including bears, pigs, wolves, foxes, mountain goats, wild ducks, wild pigeons, and partridges, for hunting in the forest areas in the Devrek, Gokcebey, and Eregli districts. Managing the natural heritage values of a region is an important tool in sustainable tourism

planning [84]. In this regard, cave tourism and hunting tourism are vital. While cave tourism improves the social and economic well-being of the local community and the protection of the environment [85], hunting tourism creates a synergy between eco, rural, and sports tourism, and stands out as a special tourism offer based on sustainability [86]. Therefore, these strengths will be among the most effective assets in the development of the sustainable tourism potential of the province.

Moreover, the opportunities of the province will facilitate the development of sustainable tourism on their own. The most important opportunity offered by the environment that should be used is the Saltukova Airport (0.3183). Airports increase the perceived quality in a tourist destination [87] and play a crucial role for the development of tourism. It is expected that Saltukova Airport will contribute to re-enliven tourism activities in the region. The second important opportunity is the restoration the ruins of the Tios Ancient City of Filyos (0.1837). The investigation of the Tios Ancient City, the first and only excavated ancient city on Turkey's Black Sea coast, is of great importance in terms of cultural tourism. As a result of the excavation activity, it is estimated that a large city will be revealed with its roads, forum, baths, religious buildings, houses, storehouses, shops, and graves.

Despite its strengths and opportunities, there are also weaknesses and threats for the province. The most important weakness of the province is its inadequate infrastructure (0.3165). This infrastructure forms an integral part of the tourism package and includes a high number of services, such as transportation networks, accommodation, water systems, and energy resources, which are necessary to meet the needs of tourists [88]. The quality of the infrastructure is an important indicator of the competitiveness and development level of a region in tourism. The second most important weakness is the lack of promotional activities dealing with historical, cultural, and natural riches (0.2943). The promotion of destinations has a great impact on the international tourism market. Image and branding in the tourism industry are regarded as important factors in gaining competitive power. This weakness should be eliminated as soon as possible, since promotion is seen as an effective tool for sustaining the target marketing activities as well as attracting tourists [89].

Environmental pollution (0.2997) and unplanned urbanization (0.1898) are the main environmental threats that can affect the tourism industry. To minimize environmental impacts, the authorities should act within the context of environmental sustainability while implementing activities for tourism development.

4.4. Strategy Development

In the previous studies suggesting sustainable tourism strategies in different regions, several authors used only SWOT analysis to develop sustainable tourism strategies [29,31,43], while others used SWOT analysis along with other methods, such as the TOWS matrix [27], fuzzy logic and the TOWS matrix [28], and a quantitative strategic planning matrix [30]. For example, Aminu et al. [37] and Garcia-Melon et al. [42] proposed sustainable strategies using the ANP technique. Tsaur and Wang [38] proposed an evaluation procedure for sustainable tourism development by the AHP and Fuzzy Set Theory. In this study, a strategic approach for the sustainable tourism development of touristic destinations was presented by means of the application of the A'WOT method and the TOWS matrix in accordance with the region-specific vision statement and main sustainable tourism goals. The region-specific vision statement for a sustainable tourism strategy in Zonguldak province was identified as "to ensure long-term and healthy development of the tourism industry by distributing tourism activities more widely in Zonguldak" based on the Tourism Strategy of Turkey: 2023 Report [45] and on the definition of sustainable tourism [9,10,19] as found in the literature. Accordingly, the main Sustainable Tourism Goals (STGs) for Zonguldak were determined as follows [9,24]:

- STG1. Providing a high-quality experience to visitors
- STG2. Providing economic benefits to host communities
- STG3. Minimizing environmental impacts and protecting the authenticity of the province

To be able to achieve sustainable tourism goals, effective strategies should be developed and implemented in cooperation with all relevant stakeholders, authorities, and institutions. During the development of tourism strategies, priorities of criteria and subcriteria should be taken into account in addition to the vision statement and the main STGs. Strategies related to the sustainable tourism goals need to be evaluated from a holistic perspective to achieve the maximum benefit from sustainable tourism. According to the internal and external factors in the matrix of SWOT, strategy proposals were formulated with experts' guidance by means of the TOWS matrix for sustainable tourism in Zonguldak as shown in Table 5.

Table 5. The strategy formulation using the TOWS matrix.

	STG	Strengths	STG	Weaknesses
Opportunities	STG1–STG2	SO Strategies Support product diversification and event management (S1, S2, S3, S4, S5, S6, S7, O1, O2, O3, O4, O5, O6, O7)	STG1–STG3	WO Strategies Enhance the image of destination (W1, W3, W6, O1, O2, O3, O4, O5, O6) - Determine the thematic routes for the West Black Sea Region and ensure that Zonguldak is included in the tour programs - Invest more intensively in the modernization of tourism infrastructure - Protection of value-added products and services
		- Guidance of destination management organizations for organizing national and international events - Reward best practices within tourism types - Promote the development of traditional handicrafts		
Threats	STG1–STG3	ST Strategies Ensure a sustainable visitor management system that minimizes environmental impacts (S1, S2, S3, S4, S5, S6, S7, T1, T4, T5, T6, T7)	STG1–STG2–STG3	WT Strategies Initiate effective promotion and branding strategies (W2, T5) Advertise of destination in the country and abroad
		- Distribute tourism activities throughout the year without changing the identity and culture of the city - Initiate activities to increase tourism entrepreneurship awareness of the society by considering optimal use of environmental resources - Training on sustainable tourism for relevant stakeholders - Reduce and recycle waste		Establish partnerships and cooperation (W4, T4) - Organize permanent programs for a public–private partnership - Strengthen linkages between tourism and other regional industrial sectors - Empower local authorities in the implementation of sustainable principles

Source: Constructed by the author. STG, sustainable tourism goal.

Support product diversification and event management: The success of sustainable tourism development depends on using policies of diversification and specialization wisely [90]. In addition, event tourism attempts to derive a benefit from events to attract tourists to visit [91]. Therefore, the proposed product diversification and event management programs within the scope of this study could be organized by means of a public–private partnership to provide a high-quality experience to visitors (STG1). Besides this, destination management organizations could be the guide for organizing national and international events. In previous studies, Sulistyadi et al. [30] and Klimek [92] also pointed out the role of destination management organizations in the implementation of sustainable tourism. In the context of the diversity of tourism products, the competitiveness of tourism relies on the sustainable use of resources in natural ecosystems [90]. Hence, in particular, the caves, which are the strongest assets of the city (0.4258), must be protected, be used in a sustainable way, and achieve availability today and in the future. Nevertheless, the suitable fauna and forest areas for hunting tourism (0.1362), rafting activities (0.1125), natural beaches (0.0653), historical remains (0.0505),

the organization of scientific conferences (0.1136), and festivals (0.0963) are the other factors that can be evaluated within the scope of product diversity and event management. Thanks to tourism diversification, seasonality, which has negative environmental, economic, social, and cultural impacts on sustainable tourism destinations, can be prevented [93]. As a result, tourism activities can spread throughout the year by increasing the number of tourist visits during low periods [94]. Thus, a management system that provides for the sustainable use of resources and prevents overtourism in the future will be in operation. Sustainable tourism not only benefits from the visitor but also the maximization of benefits from the host communities [13]. Similarly, Tsaur and Wang [38] also claimed that tourism development could be beneficial for the economy. To provide economic benefits to the host communities (STG2), incentive-based and conscious entrepreneurial approaches should be developed. For instance, best practices within tourism types, such as tableland tourism, botanical tourism, butterfly observing, cycling tourism, trekking, rafting, cave tourism, and cultural tourism, can be rewarded. As special interest tourism types promote more balanced growth in accordance with local environmental and socio-cultural concerns, it is increasingly recognized as the key to sustainable development [95]. In addition to this, handicrafts also affect sustainable tourism development [96]. The increased demand for traditional handicrafts (0.1146) will affect the province in terms of both economic and socio-cultural development.

Enhance the image of the destination: Another topic related to sustainable tourism destinations is the destination's image, which is the main factor in achieving effective marketing for the destination [97]. The inclusion of Zonguldak in tour programs, the modernization of the infrastructure, and the protection of value-added products and services are among the main topics to help enhance the image of the destination and, therefore, to provide a high-quality experience to the visitors (STG1). Tourism infrastructure development activities should be carried out with sustainable environmental management practices that minimize environmental impacts (STG3). This is in line with prior studies, in which Mondal [27] suggested the development of the required infrastructure and more environmental regulation for sustainable tourism. Both the inclusion of Zonguldak in tour programs and tourism infrastructure play an important role in the tourism industry as it affects the level of visitor satisfaction. Moreover, it is known that high-value-added products and services in the tourism sector and sustainable use of natural and cultural resources increase competitiveness [98]. Mining, weaving, embroidery, and woodworking are among the value-added activities of the region. In addition, the establishment of the Zonguldak Mining Museum (0.1350), which is considered to be a part of the cultural heritage, is among the factors that can enhance the image of the destination.

Ensure a sustainable visitor management system that minimizes environmental impacts: One of the ways to ensure sustainable visitor management and provide a high-quality experience to visitors (STG1) is to distribute tourism activities throughout the year. For this purpose, it may be suggested to increase the touristic initiatives and to enrich the touristic experiences with different types of special interest tourism without changing the identity and culture of the city. Tsaur and Wang [38] emphasized that tourism development could be harmful to the environment. The other sustainability practice for tourism development is to minimize environmental impacts [16]. The two most important threats to the province are, as stated above, environmental pollution (0.2997) and rapid, unplanned urbanization (0.1898). To minimize the negative impacts on the environment and protect the authenticity of the province (STG3), the authorities should act within the context of environmental sustainability and promote actions that do not change the identity and culture of the city, while planning and implementing activities for tourism development. At this point, training on sustainable tourism for relevant stakeholders, reducing waste, and encouraging recycling are among the important issues to be considered.

Initiate effective promotion and branding strategies: In the constantly changing tourism market, it has become difficult for a destination to be competitive on the global level [99]. A sustainable tourism marketing strategy can bring a competitive advantage to a touristic destination [100]. The practices for sustainable tourism destinations to support the destination brand and image are based on advertising

the destination in the country and abroad. “A lack of promotional activities” (0.2943) is among the weaknesses of the province. This weakness can be eliminated by developing effective promotion and brand strategies. For example, Grytsiuk et al. [25] and Cortez [26] also suggested promotion strategies for sustainable tourism in their study. These strategies, complementary to other sustainable tourism strategies, will benefit from both the visitors (STG1) and the host communities (STG2).

Establish partnerships and cooperation: Another important dimension for the development of sustainable tourism is related to partnerships and cooperation, which have been seen as an effective way to support initiatives in tourism development [101]. To achieve sustainable tourism goals, stakeholders play a significant role in both strategy evaluation and at an implementation stage. In other studies, Paunovic and Jovanovic [32] and Nowacki et al. [36] also emphasized that the participation of stakeholders must be ensured in the practice of sustainable tourism. Establishing permanent programs for a public–private partnership, strengthening links between tourism and other regional industrial sectors, and strengthening local governments toward the implementation of sustainable principles are the main actions to be taken to ensure cooperation. In their research on sustainable tourism strategies, Goodwin [39] and Candrea and Bouriaud [41] have also proposed partnerships between public and private sectors. Moreover, Grytsiuk et al. [25] pointed out the formation of an effective model of cooperation between government, business, and society. Similarly, Sulistyadi et al. [30] summarized their tourism development strategies as strengthening the commitment of the stakeholder and increasing the role and capabilities of the local communities. Considering the possible strategies developed, it can be inferred that sustainable tourism development requires the participation of all of the relevant stakeholders.

5. Conclusions

The need for the sustainable development of tourism has become a current issue due to the rapid growth of the tourism industry worldwide and the adverse effects of tourism on the social structure, natural resources, and cultural values. As a matter of fact, sustainable tourism allows us to minimize the environmental impact and to maximize the socio-economic advantages of tourist destinations [102]. In other words, sustainability is meant to consider both the development and preservation of the tourism industry [103]. For this reason, tourism activities need to be planned, managed, and monitored carefully using a long-term sustainable approach [104]. In this study, a strategic approach for the sustainable tourism development of destinations was presented by means of the application of the A'WOT method. The primary advantages of this study's method are to present an integrated perspective that can help in the design of a strategic planning process and to strengthen the quantitative side of strategic planning. The province of Zonguldak, located in the West Black Sea Region of Turkey, was chosen as the research area to propose sustainable tourism strategies. Zonguldak province has the potential to be a suitable destination for the development of special interest tourism types with its cultural richness, forests, plateaus, caves, and natural beauties created by a combination of blue and green colors. Besides this, it can be concluded that, despite its many weaknesses and environmental threats, Zonguldak bears a tourism potential that should be managed in a sustainable way with strategic approaches. It should be considered that, on the one hand, the “support product diversification and event management” strategies proposed in this study would particularly help to develop tourism as an economic diversification tool by breaking the dependent structure of the province. On the other hand, it would “ensure a sustainable visitor management system that minimizes environmental impacts” and “enhance the image of the destination”, which would increase in the number of tourists and indirectly help to solve the problem of overtourism in popular tourist destinations.

These regional strategies, suggested within the framework of an analytical approach, can lead to the design of sustainable tourism development planning. This study contributes to a theoretical approach by reviewing the literature on sustainable tourism development strategies and by reflecting on the current situation of the tourism industry of Zonguldak with the A'WOT method. This method

supports decision-makers in the decision-making process by providing a flow diagram that consists of the basic stages of identifying SWOT factors, establishing a decision hierarchy, prioritizing SWOT factors and groups, and developing a strategy using the TOWS matrix. Thereby, from a practical perspective, it supplies a systematic approach for decision-makers in the implementation of sustainable tourism strategies and the production of feasible solutions for the tourism industry. The use of this step-by-step decision-making process can promote a guiding role for tourism stakeholders, such as national and local government, tourism enterprises, local communities, and educational institutions. The original aspects of this study are the use of the strategic approach, which consists of the A'WOT method, the TOWS matrix, a region-specific vision statement, and the main sustainable tourism goals, in sustainable tourism development and the application of the method in Zonguldak. Furthermore, the analytical structure used in this study can be applied to other similar destinations. This structure can be used in further studies related to sustainability by integrating other multicriteria decision-making methods.

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