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The Impact of Urban Tourism Economy on Sustainable Development (Case Study: Tabriz Metropolis)

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ABSTRACT

The urban tourism economy examines the impact of tourism activities on the economic growth of cities and the quality of life of citizens. This type of economy, by attracting domestic and international tourists, leads to increased income, job creation, and the flourishing of local businesses. Within the framework of sustainable development, the urban tourism economy must be managed in such a way that the natural, cultural, and social resources of the city are preserved, and excessive pressure is not imposed on infrastructure. In other words, sustainable urban tourism development emphasizes the creation of a balance between economic benefit, environmental protection, and social welfare. The aim of the present study is to investigate the impact of the urban tourism economy on sustainable development (Case Study: Tabriz Metropolis). In this research, the Fuzzy TOPSIS model has been employed. This research is applied-theoretical in terms of objective and descriptive-analytical in terms of method. The required information and data have been collected through library-based methods. In this study, the impact of the urban tourism economy on the sustainable development of the Tabriz metropolis has been examined using the Fuzzy TOPSIS multi-criteria decision-making model. The aim of the study is to measure the extent of the influence of economic, social, environmental, and cultural indicators of tourism on the urban sustainability of Tabriz. By utilizing field data and expert opinions, key criteria such as tourism infrastructure, job creation, environmental protection, and local investment growth were analyzed within the fuzzy model framework. The results indicated that urban tourism development in Tabriz has a positive and significant role in enhancing sustainable development indicators, and the Fuzzy TOPSIS approach is an efficient method for prioritizing components affecting urban sustainability.

Introduction

Today, the role of tourism development as a powerful lever for enhancing the social and economic indicators of countries is clear to all. However, tourism can also be considered a serious threat to the sustainability of the tourism industry in some destinations, acting as one of the factors creating environmental and cultural challenges. In this context, the optimal management of tourism destinations is of particular importance (Sadat Akhavi,2025:4). Today, tourism, as a dynamic economic approach with distinctive and unique characteristics, has become one of the largest and most profitable industries in the global economy.

The tourism industry is a highly competitive, destination-based industry that varies in each region according to its natural, cultural, and infrastructural resources. It generates approximately 18 percent of economic activities. Without doubt, it is recognized as a safe-haven industry for both developed and developing countries (Matthew,2018:2). Tourism indirectly affects economic growth in such a way that if tourism establishes connections with other industries, economic prosperity ensues.

Tourism, as a growing industry, is becoming increasingly important day by day, as it is among the most profitable types of activities in many cases; moreover, under proper conditions, it not only lacks environmental consequences but also leads to the

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preservation and restoration of the environment and natural resources; furthermore, it creates employment and increases income and development in other economic sectors (Hazeri and Nazafat Takleh,2023:279). At the beginning of the twenty-first century, tourism has become one of the largest industries in the world and continues to advance with high growth rates. This vital industry, employing over 200 million people (approximately 10 percent of the global workforce) and with an annual turnover of up to 6 trillion dollars, plays an unparalleled role in the global economy (Burbano et al.,2022:1). Undoubtedly, mere quantitative development without regard to social and environmental dimensions will bring numerous harms and challenges to societies. One of the objectives of tourism management and planning in geographical regions is achieving sustainable development; however, the experiences of major tourism destination countries have shown that mere management and planning cannot bring about sustainable development (Rahmani Tirklaei,2020:5). The aim of the present study is to investigate the impact of the urban tourism economy on sustainable development (Case Study: Tabriz Metropolis). Urban tourism, as one of the most important driving engines of economic growth in metropolises, plays a pivotal role in shaping the future of sustainable development. This sector, through direct and indirect income generation, significantly contributes to strengthening urban infrastructure, increasing employment, and improving the quality of life of citizens. In the case study of the Tabriz metropolis, which possesses rich historical, cultural, and industrial potential, a detailed examination of the impact of this economy on the three dimensions of sustainability (economic, social, and environmental) gains double importance. The purpose of this introduction is to explain the importance of establishing a balance between the economic utilization of tourism potential and the preservation of the city's resources and socio-environmental fabric in order to achieve long-term sustainable development.

Literature Review

Haq Lesan and Arbabi Osmanabad (2023), in a study entitled "The Impact of Tourism on Sustainable Urban Development from an Economic Perspective: A Case Study of Osmanabad County," concluded that the evaluation of tourism value in Osmanabad County shows that the Qurigol wetland and its mineral hot springs play the greatest role in attracting tourists, particularly in terms of aesthetic appearance and socio-economic criteria. The consistency index of the Analytic Hierarchy Process (AHP) was calculated as 0.0335, and the consistency ratio as 0.0373. Furthermore, the economic capacity of the county, with a score of 0.6033 derived from handicrafts, agricultural products, and souvenirs has the greatest impact on tourism development.

Al Babaldi et al. (2023), in a study entitled "The Role of the Tourism Economy in the Urban Development of Lahijan," concluded that through a systemic study of the city of Lahijan, its sphere of influence, and its peripheral region, as well as the assessment of the environmental impacts of the tourism industry, appropriate strategies can be proposed to protect nature from harm and ensure resource sustainability for future generations. It is hoped that by generalizing the results obtained from this research, a suitable model for urban tourism planning as a sustainable development strategy can be achieved.

Sharifi Renani et al. (2024), in a study entitled "Analysis of the Effect of Sustainable Smart Tourism Development on the Economic Growth of Selected Tourism Destinations," concluded that, based on the results, sustainable smart tourism development leads to improved economic growth in the studied destinations, and an increase in the variables driving the value-added enhancement of the tourism industry also contributes to economic growth in these destinations. In this estimation, an increase in environmental pollution indicators showed a reduction in economic growth.

Falaki et al. (2025), in a study entitled "The Role of Urban Tourism in Sustainable Development: Challenges, Opportunities, and Solutions," concluded that the findings indicate that urban tourism can act as a driver of economic growth, enhance socio-cultural interactions, and improve the quality of the urban environment, provided that management and planning are based on sustainable development principles. Furthermore, local community participation and the management of tourist carrying capacity are key factors in the realization of urban tourism sustainability. Finally, a framework for sustainable urban tourism development is presented.

Ramazht et al. (2026), in a study entitled "The Role of Creative Tourism in Enhancing Urban Sustainability Indicators," concluded that the results showed that the research measurement instrument possesses high validity and reliability. The Average Variance Extracted (AVE) values for all constructs were above 0.5, and the Composite Reliability (CR) and Cronbach's alpha values were also above 0.7, indicating adequate convergent validity and internal consistency of the instrument. In the confirmatory factor analysis, the factor loadings indicated that each sub-indicator is a strong and valid representative of its corresponding construct, as almost all factor loadings were above 0.7. The highest factor loading belonged to the "Creativity" sub-indicator (0.914), and the lowest to "Green Space" (0.631). These results confirm that the measurement model possesses high accuracy and validity.

Grah, Dimovski, and Peterlin (2020), in a study entitled "Managing the Sustainable Development of Urban Tourism in Ljubljana," argue that interest in sustainable urban development and sustainable tourism development is increasing. The aim of the research is to integrate sustainable urban development with sustainable tourism development in a region and to advance existing models for sustainable urban tourism development. The results show that Ljubljana needs to place greater emphasis on sustainability, and stakeholders, including the local community, considered urban tourism development by taking into account various dimensions of sustainability (social, environmental, and economic sustainability).

Dessì and Cannale (2022), in a study entitled "The Controversial Effects of Tourism on Economic Growth: A Spatial Analysis on Italian Provincial Data," concluded that using spatial methods, they analyzed the effects of tourism on the economic growth of Italian provinces during the period 2005-2018. Spatial analysis shows that tourism has beneficial effects on economic growth.

Zhou et al. (2025), in a study entitled "Investigating the Dynamics of Creative Tourism: A Tourist-Centered Perspective for Achieving Sustainable Economic Development," concluded that the results of this research indicate that for the development of creative tourism and the achievement of a sustainable city in the Kurdistan region, various dimensions hold different levels of importance. The cultural dimension, with the highest factor loading (0.95), was identified as the most important factor, followed by the social (0.92), economic (0.88), and managerial/foundational (0.83) dimensions. These findings emphasize that cultural planning, local community participation, and infrastructure support play a vital role in strengthening creative tourism.

Theoretical Foundations

The tourism industry is an economic, recreational, and cultural activity that, through recognizing potential capacities and creating investment opportunities in it, leads to economic growth, job creation, improvement of quality of life, and enhancement of social culture (Moeinian Miandoab et al.,2020:451). Tourism has a positive impact on the economy, society, culture, and environment. These include its contribution to gross domestic product, infrastructure improvement, protection and revival of culture, and increasing environmental awareness. In addition, it is considered an effective method for poverty reduction in some traditional communities, as it creates various jobs compared to traditional livelihoods, as well as opportunities for selling local products (Lee,2019:368). The term "sustainable development" was widely introduced after the report of the Brundtland Commission, entitled "Our Common Future," and the 1987 Rio Summit. According to the Brundtland Report, sustainable development has three main dimensions: economic, social, and environmental (Faraji et al.,2020:129). Taking into account the social, economic, and environmental conditions, sustainable development becomes possible. In fact, the fundamental approach of sustainable development is to improve the quality of life of all human beings at all times, and economic relations in society should lead to fair and equitable relationships. A sustainable urban form is that degree of urban development that leads to the formation of social justice in cities. One of the most important indicators of social justice in cities is the balanced spatial distribution of urban services. Therefore, one of the criteria for sustainable urban development is social justice in cities and the balanced spatial distribution of urban services (Pour Ahmad et al.,2024:20). The roots of sustainable tourism development trace back to the broader concept of sustainable development. Smart tourism can be considered a type of sustainable advancement of traditional tourism. Such development is accompanied by the expansion of social media usage, a shift in focus toward enhancing the tourism experience by relying on physical or digital connectivity, a high flow of tourism information, and the high dynamism of travelers (Buhalis et al.,2015:378). Tourism is one of the most promising and dynamic occupations in the world. Purposeful and sustainable tourism planning and development are of great importance through seeking compromises between the environmental, economic, and social goals of society. Sustainable tourism development management should maintain a high degree of satisfaction with tourists' needs, guarantee a significant experience for consumers, increase their awareness of sustainability issues, and promote sustainable tourism practices among them (Askari and Zare,2023:3). Sustainable tourism development is defined as the expansion of the tourism industry and the attraction of tourists to an area using existing resources in such a way that, while responding to the economic, cultural, and legal needs of the community and tourists' expectations, it can provide unity, cultural identity, environmental health, and economic balance for the destination and its guests in an optimal and balanced manner (Keshavarz,2019:123). Sustainable tourism development is the expansion of the tourism industry and the attraction of tourists to an area using existing resources in such a way that, while responding to the economic, cultural, and legal needs of the community and tourists' expectations, it can provide unity, cultural identity, environmental health, and economic balance for the destination and its guests in an optimal and balanced manner (Al-Sadat Dalqandi et al.,2020:2).

Study Area

East Azerbaijan Province, with a population of 3,909,652, is one of the Turkic-populated provinces of Iran, with Tabriz, the provincial capital, located in its northwestern region. The provincial capital, Tabriz, with a population of 1,593,373, accounts for 42 percent of the province's population. According to the physical divisions of the master plan, the city is divided into 10 districts. Tabriz's share of the province's deteriorated urban fabric area is 2,522 hectares. The city of Tabriz is situated at 46°25' east longitude and 38°02' north latitude from the Greenwich meridian. Its elevation above sea level is 1,400 meters. With an area of approximately 11,800 square kilometers, it is located in the central territory of the Azerbaijan region, east of Lake Urmia, and 619 kilometers west of Tehran. It lies 150 kilometers south of Jolfa, the border between Iran and the Republic of Azerbaijan. The population of Tabriz exceeds 1.5 million. Tabriz is bounded to the south by the solitary, perpetually snow-covered Sahand mountain range, and to the northeast by the reddish mountain (Mount Aun bin Ali / Eynali). The Aji Chay River (Talkheh Rud) flows through the north and northwest of Tabriz. After traversing a considerable distance across the Tabriz plain, it empties into Lake Urmia. The Mehran River passes through the middle of Tabriz, which is mostly dry during various seasons of the year. Tabriz once had delightful and renowned gardens and farms, along with numerous qanats and springs, all of which have now disappeared or are as good as gone, and the city's expanse around it has transformed into residential, commercial, administrative, industrial, and service areas (Zeinali Azim and Babazadeh Oskuiee,2022:30).

Figure 1. Study Area

Research Methodology

The present research is theoretical-applied in terms of objective, and descriptive-analytical in terms of nature and method. In compiling the information and calculations for this research, geographical tools and techniques, GIS software, and the Fuzzy TOPSIS model have been employed. The required information and data have been collected through library-based and field methods. In the library-based method, first, in order to review the background and literature on the subject and to explain the theoretical-conceptual framework of the research, existing books, articles, and theses have been studied. In field studies, the required research data are collected through observation.

Fuzzy TOPSIS Technique

After determining the weights of the sub-criteria, the alternatives must be prioritized. This is accomplished using the Fuzzy TOPSIS technique, which was introduced by Hwang and Yoon in 1981, as follows (Patil and Kant,2014):

Step 1. Creating the Decision Matrix of Individuals' Opinions

Assume that the decision matrix of individuals' opinions is as follows:

$$\widetilde{D} = \begin{bmatrix} \tilde{x}_{11} & \tilde{x}_{12} & \cdots & \tilde{x}_{1n} \\ \tilde{x}_{21} & \tilde{x}_{22} & \cdots & \tilde{x}_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ \tilde{x}_{m1} & \tilde{x}_{m2} & \cdots & \tilde{x}_{mn} \end{bmatrix} \quad i = 1,2,\dots,m;\ j = 1,2,\dots,n$$

Each column represents an evaluation indicator, and each row represents an alternative. Xij denotes the quantity of the i-th alternative with respect to the j-th sub-criterion. Furthermore, sub-criteria may have either positive or negative effects on the alternatives. In this study, to evaluate the alternatives against each criterion, the verbal expressions and fuzzy numbers presented in Table 1 have been employed.

Table 1. Verbal Expressions and Corresponding Fuzzy Numbers for Ranking Alternatives

Code	Priorities	Fuzzy Equivalents of Priorities		
		Lower Bound (L)	Middle Bound (m)	Upper Bound (u)
1	Very Low	1	1	3
2	Low	1	3	5
3	Medium	3	5	7
4	High	5	7	9
5	Very High	7	9	11

Step 2. Normalization of the Decision Matrix
In this stage, the fuzzy decision matrix of individuals' opinions must be transformed into a fuzzy dimensionless matrix ($\tilde{R}$). To obtain the $\tilde{R}$ matrix, it is sufficient to use the first relation if the components are positive, and the second relation if they are negative:

$$\tilde{R} = [\tilde{r}_{ij}]_{m\times n}$$

$$\tilde{r}_{ij} = \left(\frac{a_{ij}}{c_j^*}, \frac{b_{ij}}{c_j^*}, \frac{c_{ij}}{c_j^*}\right) \text{ and } c_j^* = \max_i c_{ij}$$

$$\tilde{r}_{ij} = \left(\frac{a_j^-}{c_{ij}}, \frac{a_j^-}{b_{ij}}, \frac{a_j^-}{a_{ij}}\right) \text{ and } a_j^- = \min_i a_{ij}$$

Step 3. Constructing the Fuzzy Weighted Normalized Matrix $\tilde{V}$
Assuming the weight vector \tilde{W}_{ij} is known, the fuzzy weighted normalized matrix $\tilde{V}$ is constructed according to the following equation:

$$i = 1,2,\dots,m \quad j = 1,2,\dots,n \quad \tilde{V} = [\tilde{v}_{ij}]_{m\times n}$$

$$\tilde{v}_{ij} = \tilde{r}_{ij}.\tilde{w}_j$$

Step 4. Determining the Fuzzy Positive Ideal Solution (A^+) and Fuzzy Negative Ideal Solution (A^-) for the Components
The fuzzy positive ideal solution (FPIS) and fuzzy negative ideal solution (FNIS) are defined as follows:

$$A^+ = (\tilde{v}_1^*, \tilde{v}_2^*, \dots, \tilde{v}_n^*) \text{ where } \tilde{v}_j^* = (\tilde{c}_j^*, \tilde{c}_j^*, \tilde{c}_j^*) \text{ and } \tilde{c}_j^* = \max_i\{\tilde{c}_{ij}\}$$

$$A^- = (\tilde{v}_1^-, \tilde{v}_2^-, \dots, \tilde{v}_n^-) \text{ where } \tilde{v}_j^- = (\tilde{a}_j^-, \tilde{a}_j^-, \tilde{a}_j^-) \text{and } \tilde{a}_j^- = \min_i\{\tilde{a}_{ij}\}$$

$$\forall i = 1,2,\dots,m; \quad j = 1,2,\dots,n$$

Step 5. Calculating the Total Distances of Each Component from the Fuzzy Positive Ideal Solution and the Fuzzy Negative Ideal Solution

If A and B are two fuzzy numbers as described below, then the distance between these two fuzzy numbers is obtained through the following relation:

$$\tilde{A} = (a_1, b_1, c_1) \qquad \tilde{B} = (a_2, b_2, c_2)$$

$$D(A,B) = \sqrt{\frac{1}{3}[(a_2 - a_1)^2 + (b_2 - b_1)^2 + (c_2 - c_1)^2]}$$

Step 6. Calculating the Closeness Coefficient (CC) and Ranking the Alternatives
The closeness coefficient for each alternative is calculated using the following equation:

$$CC_i = \frac{d_i^-}{d_i^+ + d_i^-}$$

where:

- ✓ d_i^+ = the distance of alternative i from the fuzzy positive ideal solution;
- ✓ d_i^- = the distance of alternative i from the fuzzy negative ideal solution.

The larger the value of CC_i, the closer the alternative is to the ideal solution, and vice versa. Therefore, the alternatives are ranked in descending order of CC_i values, with the highest value representing the best alternative.

$$d_i^* = \sum_{j=1}^{n} d(\tilde{v}_{ij} - \tilde{v}_j^*) \qquad i = 1,2,\dots,m$$

$$CCi = \frac{d_i^-}{d_i^* + d_i^-} \qquad i = 1,2,\dots,m$$

Step 7. Ranking the Alternatives
Based on the descending order of CC_i, the alternatives in the given problem can be ranked.

Research Findings
Results of the Fuzzy TOPSIS Method:
In this section, the Fuzzy TOPSIS method is used for weighting the research factors.

Table 2. Introduction of Research Factors

Row	Research Factors
1	Growth of local gross domestic product (C1)
2	Direct job creation (C2)
3	Urban income diversification (C3)

4	Attraction of foreign investment (C4)
5	Increase in property values (C5)
6	Development of transportation infrastructure (C6)
7	Development of local businesses (C7)
8	Reduction of seasonal unemployment (C8)
9	Municipal tax revenue (C9)
10	Increase in per capita tourist consumption (C10)
11	Improvement of public service quality (C11)
12	Preservation of cultural identity (C12)
13	Increase in intercultural interactions (C13)
14	Reduction of income inequality (C14)
15	Enhancement of resident satisfaction (C15)
16	Development of recreational facilities (C16)
17	Improvement of urban security (C17)
18	Reverse migration of elites (C18)
19	Access to tourism education (C19)
20	Preservation of historical fabric (C20)
21	Reduction of urban water consumption (C21)
22	Tourism waste management (C22)
23	Reduction of air pollution (C23)
24	Development of green spaces (C24)
25	Protection of natural resources (C25)
26	Monitoring of environmental impacts (C26)
27	Promotion of green transportation (C27)
28	Control of unplanned construction (C28)

✓ Source: Research Findings, 2025

Step 1. Formation of the Decision Matrix
In this step, we form the decision matrix of the respondents' opinions. The number of respondents to the decision matrix is 7 individuals. After aggregating the opinions, the results are presented in Table 3.

Table 3. Fuzzy TOPSIS Decision Matrix

	E1	E2	E3	E4	E5	E6	E7
C1	(3,4.429,6.429)	(3.857,5.857,7.857)	(3.857,5.857,7.857)	(3.286,5,7)	(3.571,5.571,7.571)	(3,4.143,6.143)	(3,5,7)
C2	(4.429,6.429,8.429)	(3.286,4.429,6.429)	(3.571,5.571,7.571)	(3.571,5.286,7.286)	(4.143,6.143,8.143)	(2.714,4.429,6.429)	(3,4.714,6.714)
C3	(3,4.714,6.714)	(2.714,4.429,6.429)	(3,4.429,6.429)	(3.857,5.857,7.857)	(2.714,4.429,6.429)	(5,7,9)	(4.429,6.143,8.143)
C4	(2.714,3.571,5.571)	(2.714,4.429,6.429)	(2.429,3.857,5.857)	(5,6.714,8.714)	(4.429,5.857,7.857)	(3.571,5.571,7.571)	(3.286,5,7)
C5	(4.143,6.143,8.143)	(3.571,5,7)	(3.286,5,7)	(4.429,6.429,8.429)	(2.429,3.857,5.857)	(3.571,5.286,7.286)	(1.857,3.286,5.286)
C6	(4.429,6.429,8.429)	(3,4.714,6.714)	(3,3.857,5.857)	(3.571,5.571,7.571)	(4.429,6.143,8.143)	(3.286,5,7)	(2.714,4.429,6.429)
C7	(4.143,5.571,7.571)	(3,4.429,6.429)	(3.571,4.714,6.714)	(2.429,3.571,5.571)	(3.286,5,7)	(3.571,5,7)	(2.714,3.857,5.857)
C8	(4.714,6.429,8.429)	(4.429,6.429,8.429)	(2.143,3.571,5.571)	(1.857,3,5)	(4.143,5.286,7.286)	(4.714,6.429,8.429)	(3.286,5,7)
C9	(2.143,3.857,5.857)	(4.143,5.857,7.857)	(3,5,7)	(5.286,7.286,9.286)	(4.714,6.143,8.143)	(3.857,5.571,7.571)	(4.143,6.143,8.143)
C10	(3.571,5,7)	(3,4.143,6.143)	(3.571,4.714,6.714)	(3.857,5.857,7.857)	(4.714,6.429,8.429)	(3.857,5.286,7.286)	(3.286,4.429,6.429)
C11	(3.571,5.571,7.571)	(2.714,4.143,6.143)	(3.571,5.286,7.286)	(2.429,3.571,5.571)	(2.143,3.857,5.857)	(4.429,6.143,8.143)	(2.714,4.429,6.429)
C12	(4.714,6.429,8.429)	(1.571,3,5)	(3.286,4.714,6.714)	(4.429,5.857,7.857)	(3,4.429,6.429)	(2.429,3.857,5.857)	(2.429,3.571,5.571)
C13	(2.143,3.571,5.571)	(3.286,5.286,7.286)	(4.714,6.714,8.714)	(3,4.429,6.429)	(3.286,4.714,6.714)	(3.286,5.286,7.286)	(4.143,5.857,7.857)
C14	(2.714,4.714,6.714)	(3.571,5.571,7.571)	(2.714,4.143,6.143)	(4.143,5.857,7.857)	(3,4.429,6.429)	(2.429,4.143,6.143)	(3,4.429,6.429)
C15	(4.143,6.143,8.143)	(4.714,6.429,8.429)	(5,7,9)	(3.571,5,7)	(3.286,4.429,6.429)	(2.429,3.857,5.857)	(2.714,4.143,6.143)
C16	(3.286,5,7)	(2.714,3.571,5.571)	(3.286,5,7)	(3.857,5.571,7.571)	(4.429,6.143,8.143)	(5,6.714,8.714)	(3.571,5,7)
C17	(2.714,3.857,5.857)	(3,4.714,6.714)	(3.857,5.571,7.571)	(2.714,4.143,6.143)	(3.286,5,7)	(3,4.714,6.714)	(4.143,5.571,7.571)
C18	(3.857,5.571,7.571)	(3.857,5.571,7.571)	(3,4.429,6.429)	(4.143,6.143,8.143)	(3.286,4.714,6.714)	(4.143,6.143,8.143)	(3.571,5.571,7.571)

C19	(3.857,5.857,7.857)	(3.857,5.571,7.571)	(2.143,3.286,5.286)	(2.429,3.571,5.571)	(3.286,5,7)	(3.571,5.286,7.286)	(3.286,4.714,6.714)
C20	(3,4.714,6.714)	(3.286,5,7)	(2.714,4.143,6.143)	(5.286,7,9)	(3,5,7)	(3,5,7)	(4.429,6.429,8.429)
C21	(1.571,2.429,4.429)	(2.143,3,5)	(5,7,9)	(3.857,5.857,7.857)	(4.429,6.143,8.143)	(4.429,6.143,8.143)	(2.714,4.143,6.143)
C22	(4.429,5.857,7.857)	(5,7,9)	(3,4.429,6.429)	(4.714,6.143,8.143)	(3.857,5.571,7.571)	(3.286,5,7)	(4.714,6.143,8.143)
C23	(2.714,4.143,6.143)	(3.857,5.286,7.286)	(3.286,5.286,7.286)	(2.429,3.571,5.571)	(2.429,3.857,5.857)	(2.429,4.429,6.429)	(3,4.429,6.429)
C24	(3.286,5.286,7.286)	(5.286,7.286,9.286)	(2.143,3,5)	(2.714,4.429,6.429)	(3.571,5.286,7.286)	(3.571,5.571,7.571)	(4.429,5.857,7.857)
C25	(2.143,3.286,5.286)	(1.857,3,5)	(4.429,6.143,8.143)	(3.571,5.286,7.286)	(3,4.714,6.714)	(4.143,5.571,7.571)	(2.714,3.857,5.857)
C26	(3,4.143,6.143)	(3.286,4.714,6.714)	(3.286,5.286,7.286)	(4.429,6.429,8.429)	(3.286,4.714,6.714)	(3,4.143,6.143)	(3.286,5,7)
C27	(3.857,5.286,7.286)	(2.143,3.571,5.571)	(3.286,5.286,7.286)	(2.429,3.857,5.857)	(2.143,3,5)	(4.714,6.714,8.714)	(2.143,3.857,5.857)
C28	(4.714,6.143,8.143)	(2.714,4.429,6.429)	(4.714,6.714,8.714)	(2.143,3.286,5.286)	(3.286,4.714,6.714)	(1.857,3.571,5.571)	(3,4.429,6.429)

Step 2. Normalization of the Decision Matrix
The decision matrix from Table 3 is calculated using relations (1) and (2). The normalized decision matrix is presented in Table 4.

Table 4. Normalized Fuzzy TOPSIS Decision Matrix

	E1	E2	E3	**E4**	**E5**	**E6**	**E7**
C1	(0.356,0.525,0.763)	(0.415,0.631,0.846)	(0.429,0.651,0.873)	(0.354,0.538,0.754)	(0.424,0.661,0.898)	(0.333,0.46,0.683)	(0.356,0.593,0.831)
C2	(0.525,0.763,1)	(0.354,0.477,0.692)	(0.397,0.619,0.841)	(0.385,0.569,0.785)	(0.492,0.729,0.966)	(0.302,0.492,0.714)	(0.356,0.559,0.797)
C3	(0.356,0.559,0.797)	(0.292,0.477,0.692)	(0.333,0.492,0.714)	(0.415,0.631,0.846)	(0.322,0.525,0.763)	(0.556,0.778,1)	(0.525,0.729,0.966)
C4	(0.322,0.424,0.661)	(0.292,0.477,0.692)	(0.27,0.429,0.651)	(0.538,0.723,0.938)	(0.525,0.695,0.932)	(0.397,0.619,0.841)	(0.39,0.593,0.831)
C5	(0.492,0.729,0.966)	(0.385,0.538,0.754)	(0.365,0.556,0.778)	(0.477,0.692,0.908)	(0.288,0.458,0.695)	(0.397,0.587,0.81)	(0.22,0.39,0.627)
C6	(0.525,0.763,1)	(0.323,0.508,0.723)	(0.333,0.429,0.651)	(0.385,0.6,0.815)	(0.525,0.729,0.966)	(0.365,0.556,0.778)	(0.322,0.525,0.763)
C7	(0.492,0.661,0.898)	(0.323,0.477,0.692)	(0.397,0.524,0.746)	(0.262,0.385,0.6)	(0.39,0.593,0.831)	(0.397,0.556,0.778)	(0.322,0.458,0.695)
C8	(0.559,0.763,1)	(0.477,0.692,0.908)	(0.238,0.397,0.619)	(0.2,0.323,0.538)	(0.492,0.627,0.864)	(0.524,0.714,0.937)	(0.39,0.593,0.831)
C9	(0.254,0.458,0.695)	(0.446,0.631,0.846)	(0.333,0.556,0.778)	(0.569,0.785,1)	(0.559,0.729,0.966)	(0.429,0.619,0.841)	(0.492,0.729,0.966)
C10	(0.424,0.593,0.831)	(0.323,0.446,0.662)	(0.397,0.524,0.746)	(0.415,0.631,0.846)	(0.559,0.763,1)	(0.429,0.587,0.81)	(0.39,0.525,0.763)
C11	(0.424,0.661,0.898)	(0.292,0.446,0.662)	(0.397,0.587,0.81)	(0.262,0.385,0.6)	(0.254,0.458,0.695)	(0.492,0.683,0.905)	(0.322,0.525,0.763)
C12	(0.559,0.763,1)	(0.169,0.323,0.538)	(0.365,0.524,0.746)	(0.477,0.631,0.846)	(0.356,0.525,0.763)	(0.27,0.429,0.651)	(0.288,0.424,0.661)
C13	(0.254,0.424,0.661)	(0.354,0.569,0.785)	(0.524,0.746,0.968)	(0.323,0.477,0.692)	(0.39,0.559,0.797)	(0.365,0.587,0.81)	(0.492,0.695,0.932)
C14	(0.322,0.559,0.797)	(0.385,0.6,0.815)	(0.302,0.46,0.683)	(0.446,0.631,0.846)	(0.356,0.525,0.763)	(0.27,0.46,0.683)	(0.356,0.525,0.763)
C15	(0.492,0.729,0.966)	(0.508,0.692,0.908)	(0.556,0.778,1)	(0.385,0.538,0.754)	(0.39,0.525,0.763)	(0.27,0.429,0.651)	(0.322,0.492,0.729)
C16	(0.39,0.593,0.831)	(0.292,0.385,0.6)	(0.365,0.556,0.778)	(0.415,0.6,0.815)	(0.525,0.729,0.966)	(0.556,0.746,0.968)	(0.424,0.593,0.831)
C17	(0.322,0.458,0.695)	(0.323,0.508,0.723)	(0.429,0.619,0.841)	(0.292,0.446,0.662)	(0.39,0.593,0.831)	(0.333,0.524,0.746)	(0.492,0.661,0.898)
C18	(0.458,0.661,0.898)	(0.415,0.6,0.815)	(0.333,0.492,0.714)	(0.446,0.662,0.877)	(0.39,0.559,0.797)	(0.46,0.683,0.905)	(0.424,0.661,0.898)
C19	(0.458,0.695,0.932)	(0.415,0.6,0.815)	(0.238,0.365,0.587)	(0.262,0.385,0.6)	(0.39,0.593,0.831)	(0.397,0.587,0.81)	(0.39,0.559,0.797)
C20	(0.356,0.559,0.797)	(0.354,0.538,0.754)	(0.302,0.46,0.683)	(0.569,0.754,0.969)	(0.356,0.593,0.831)	(0.333,0.556,0.778)	(0.525,0.763,1)
C21	(0.186,0.288,0.525)	(0.231,0.323,0.538)	(0.556,0.778,1)	(0.415,0.631,0.846)	(0.525,0.729,0.966)	(0.492,0.683,0.905)	(0.322,0.492,0.729)
C22	(0.525,0.695,0.932)	(0.538,0.754,0.969)	(0.333,0.492,0.714)	(0.508,0.662,0.877)	(0.458,0.661,0.898)	(0.365,0.556,0.778)	(0.559,0.729,0.966)
C23	(0.322,0.492,0.729)	(0.415,0.569,0.785)	(0.365,0.587,0.81)	(0.262,0.385,0.6)	(0.288,0.458,0.695)	(0.27,0.492,0.714)	(0.356,0.525,0.763)
C24	(0.39,0.627,0.864)	(0.569,0.785,1)	(0.238,0.333,0.556)	(0.292,0.477,0.692)	(0.424,0.627,0.864)	(0.397,0.619,0.841)	(0.525,0.695,0.932)
C25	(0.254,0.39,0.627)	(0.2,0.323,0.538)	(0.492,0.683,0.905)	(0.385,0.569,0.785)	(0.356,0.559,0.797)	(0.46,0.619,0.841)	(0.322,0.458,0.695)
C26	(0.356,0.492,0.729)	(0.354,0.508,0.723)	(0.365,0.587,0.81)	(0.477,0.692,0.908)	(0.39,0.559,0.797)	(0.333,0.46,0.683)	(0.39,0.593,0.831)
C27	(0.458,0.627,0.864)	(0.231,0.385,0.6)	(0.365,0.587,0.81)	(0.262,0.415,0.631)	(0.254,0.356,0.593)	(0.524,0.746,0.968)	(0.254,0.458,0.695)
C28	(0.559,0.729,0.966)	(0.292,0.477,0.692)	(0.524,0.746,0.968)	(0.231,0.354,0.569)	(0.39,0.559,0.797)	(0.206,0.397,0.619)	(0.356,0.525,0.763)

Step 3. Weighted Normalized Matrix
In this step, the weighted normalized matrix is obtained using relation (3). The weights of the 7 experts are considered equal, with a value of 0.143.

Table 5. Weighted Normalized Fuzzy TOPSIS Matrix

	E1	E2	E3	E4	E5	E6	E7
C1	(0.051,0.075,0.109)	(0.059,0.09,0.121)	(0.061,0.093,0.125)	(0.051,0.077,0.108)	(0.061,0.095,0.128)	(0.048,0.066,0.098)	(0.051,0.085,0.119)
C2	(0.075,0.109,0.143)	(0.051,0.068,0.099)	(0.057,0.089,0.12)	(0.055,0.081,0.112)	(0.07,0.104,0.138)	(0.043,0.07,0.102)	(0.051,0.08,0.114)
C3	(0.051,0.08,0.114)	(0.042,0.068,0.099)	(0.048,0.07,0.102)	(0.059,0.09,0.121)	(0.046,0.075,0.109)	(0.079,0.111,0.143)	(0.075,0.104,0.138)
C4	(0.046,0.061,0.095)	(0.042,0.068,0.099)	(0.039,0.061,0.093)	(0.077,0.103,0.134)	(0.075,0.099,0.133)	(0.057,0.089,0.12)	(0.056,0.085,0.119)
C5	(0.07,0.104,0.138)	(0.055,0.077,0.108)	(0.052,0.079,0.111)	(0.068,0.099,0.13)	(0.041,0.065,0.099)	(0.057,0.084,0.116)	(0.032,0.056,0.09)
C6	(0.075,0.109,0.143)	(0.046,0.073,0.103)	(0.048,0.061,0.093)	(0.055,0.086,0.117)	(0.075,0.104,0.138)	(0.052,0.079,0.111)	(0.046,0.075,0.109)
C7	(0.07,0.095,0.128)	(0.046,0.068,0.099)	(0.057,0.075,0.107)	(0.037,0.055,0.086)	(0.056,0.085,0.119)	(0.057,0.079,0.111)	(0.046,0.065,0.099)
C8	(0.08,0.109,0.143)	(0.068,0.099,0.13)	(0.034,0.057,0.089)	(0.029,0.046,0.077)	(0.07,0.09,0.124)	(0.075,0.102,0.134)	(0.056,0.085,0.119)
C9	(0.036,0.065,0.099)	(0.064,0.09,0.121)	(0.048,0.079,0.111)	(0.081,0.112,0.143)	(0.08,0.104,0.138)	(0.061,0.089,0.12)	(0.07,0.104,0.138)
C10	(0.061,0.085,0.119)	(0.046,0.064,0.095)	(0.057,0.075,0.107)	(0.059,0.09,0.121)	(0.08,0.109,0.143)	(0.061,0.084,0.116)	(0.056,0.075,0.109)
C11	(0.061,0.095,0.128)	(0.042,0.064,0.095)	(0.057,0.084,0.116)	(0.037,0.055,0.086)	(0.036,0.065,0.099)	(0.07,0.098,0.129)	(0.046,0.075,0.109)
C12	(0.08,0.109,0.143)	(0.024,0.046,0.077)	(0.052,0.075,0.107)	(0.068,0.09,0.121)	(0.051,0.075,0.109)	(0.039,0.061,0.093)	(0.041,0.061,0.095)
C13	(0.036,0.061,0.095)	(0.051,0.081,0.112)	(0.075,0.107,0.138)	(0.046,0.068,0.099)	(0.056,0.08,0.114)	(0.052,0.084,0.116)	(0.07,0.099,0.133)
C14	(0.046,0.08,0.114)	(0.055,0.086,0.117)	(0.043,0.066,0.098)	(0.064,0.09,0.121)	(0.051,0.075,0.109)	(0.039,0.066,0.098)	(0.051,0.075,0.109)
C15	(0.07,0.104,0.138)	(0.073,0.099,0.13)	(0.079,0.111,0.143)	(0.055,0.077,0.108)	(0.056,0.075,0.109)	(0.039,0.061,0.093)	(0.046,0.07,0.104)
C16	(0.056,0.085,0.119)	(0.042,0.055,0.086)	(0.052,0.079,0.111)	(0.059,0.086,0.117)	(0.075,0.104,0.138)	(0.079,0.107,0.138)	(0.061,0.085,0.119)
C17	(0.046,0.065,0.099)	(0.046,0.073,0.103)	(0.061,0.089,0.12)	(0.042,0.064,0.095)	(0.056,0.085,0.119)	(0.048,0.075,0.107)	(0.07,0.095,0.128)
C18	(0.065,0.095,0.128)	(0.059,0.086,0.117)	(0.048,0.07,0.102)	(0.064,0.095,0.125)	(0.056,0.08,0.114)	(0.066,0.098,0.129)	(0.061,0.095,0.128)
C19	(0.065,0.099,0.133)	(0.059,0.086,0.117)	(0.034,0.052,0.084)	(0.037,0.055,0.086)	(0.056,0.085,0.119)	(0.057,0.084,0.116)	(0.056,0.08,0.114)
C20	(0.051,0.08,0.114)	(0.051,0.077,0.108)	(0.043,0.066,0.098)	(0.081,0.108,0.139)	(0.051,0.085,0.119)	(0.048,0.079,0.111)	(0.075,0.109,0.143)
C21	(0.027,0.041,0.075)	(0.033,0.046,0.077)	(0.079,0.111,0.143)	(0.059,0.09,0.121)	(0.075,0.104,0.138)	(0.07,0.098,0.129)	(0.046,0.07,0.104)
C22	(0.075,0.099,0.133)	(0.077,0.108,0.139)	(0.048,0.07,0.102)	(0.073,0.095,0.125)	(0.065,0.095,0.128)	(0.052,0.079,0.111)	(0.08,0.104,0.138)
C23	(0.046,0.07,0.104)	(0.059,0.081,0.112)	(0.052,0.084,0.116)	(0.037,0.055,0.086)	(0.041,0.065,0.099)	(0.039,0.07,0.102)	(0.051,0.075,0.109)
C24	(0.056,0.09,0.124)	(0.081,0.112,0.143)	(0.034,0.048,0.079)	(0.042,0.068,0.099)	(0.061,0.09,0.124)	(0.057,0.089,0.12)	(0.075,0.099,0.133)
C25	(0.036,0.056,0.09)	(0.029,0.046,0.077)	(0.07,0.098,0.129)	(0.055,0.081,0.112)	(0.051,0.08,0.114)	(0.066,0.089,0.12)	(0.046,0.065,0.099)
C26	(0.051,0.07,0.104)	(0.051,0.073,0.103)	(0.052,0.084,0.116)	(0.068,0.099,0.13)	(0.056,0.08,0.114)	(0.048,0.066,0.098)	(0.056,0.085,0.119)
C27	(0.065,0.09,0.124)	(0.033,0.055,0.086)	(0.052,0.084,0.116)	(0.037,0.059,0.09)	(0.036,0.051,0.085)	(0.075,0.107,0.138)	(0.036,0.065,0.099)
C28	(0.08,0.104,0.138)	(0.042,0.068,0.099)	(0.075,0.107,0.138)	(0.033,0.051,0.081)	(0.056,0.08,0.114)	(0.03,0.057,0.089)	(0.051,0.075,0.109)

Step 4. Determining Positive and Negative Ideals
In this step, the positive and negative ideals are calculated using relations (4) and (5). The positive ideal is the largest value in each criterion column, and the negative ideal is the smallest value in each column of the experts' matrix.

Table 6. Positive and Negative Ideals

	E1	E2	E3	E4	E5	E6	**E7**
A+	(0.08,0.109,0.143)	(0.081,0.112,0.143)	(0.079,0.111,0.143)	(0.081,0.112,0.143)	(0.08,0.109,0.143)	(0.079,0.111,0.143)	(0.08,0.109,0.143)
A-	(0.027,0.041,0.075)	(0.024,0.046,0.077)	(0.034,0.048,0.079)	(0.029,0.046,0.077)	(0.036,0.051,0.085)	(0.03,0.057,0.089)	(0.032,0.056,0.09)

Step 5. Calculating the Distance of Alternatives from the Positive and Negative Ideals

In this step, using relations (7) and (8), the distance of each alternative from the positive ideal (d^+) and the negative ideal (d^-) is calculated (columns 2 and 3 of Table 6).

Step 6. Calculating the Closeness Coefficient (CC_i) and Ranking the Alternatives

Using relation (9), the closeness coefficient for each alternative is calculated, and based on this, the alternatives are ranked (column 3 of Table 7).

Table 7. Final Ranking of Criteria

	D+	D-	Ci	رتبه
C1	0.190	0.218	0.534	14
C2	0.170	0.238	0.583	7
C3	0.171	0.236	0.580	8
C4	0.197	0.209	0.515	15
C5	0.203	0.204	0.502	17
C6	0.181	0.226	0.555	12
C7	0.234	0.173	0.425	24
C8	0.176	0.231	0.568	10
C9	0.128	0.280	0.686	2
C10	0.177	0.229	0.564	11
C11	0.231	0.177	0.434	23
C12	0.241	0.165	0.407	25
C13	0.188	0.218	0.537	13
C14	0.229	0.177	0.436	22
C15	0.167	0.240	0.590	5
C16	0.163	0.245	0.600	4
C17	0.218	0.188	0.463	19
C18	0.153	0.253	0.624	3
C19	0.222	0.185	0.454	21
C20	0.170	0.239	0.585	6
C21	0.200	0.208	0.509	16
C22	0.115	0.292	0.717	1
C23	0.261	0.146	0.358	28
C24	0.172	0.234	0.576	9
C25	0.244	0.164	0.402	26
C26	0.206	0.201	0.493	18
C27	0.252	0.155	0.381	27
C28	0.222	0.184	0.454	20

In Table 7, the final ranking of criteria shows that the criterion of tourism waste management (C22) ranks first, the criterion of municipal tax revenue (C9) ranks second, and the criterion of reverse migration of elites (C18) ranks third.

Conclusion

The core theory in this field is Sustainable Development Theory, as defined by the Brundtland Report in 1987. This theory emphasizes meeting the needs of the present generation without compromising the ability of future generations to meet their own needs, and encompasses three pillars economic, social, and environmental which must be considered simultaneously. In the urban context, tourism functions as an exogenous service industry, and the theory of economic leakage becomes relevant, highlighting the necessity of designing policies to minimize the outflow of economic benefits from the host community and maximize the retention of income within the urban environment. From a social perspective, Symbolic Interactionism explains how interactions between tourists and hosts influence urban identity, necessitating cultural management to prevent the "market-orientation" of local identity. On the other hand, Urban Carrying

Capacity Theory establishes a fundamental limit beyond which increased tourism activities lead to the degradation of residents' quality of life and the erosion of resources. Finally, Endogenous Growth Theory is applicable in economic analyses of tourism, as investment in quality infrastructure related to tourism (such as green transportation and information technologies) can serve as a long-term driver of sustainable urban economic growth, rather than relying solely on traditional comparative advantages.

The aim of the present study was to investigate the impact of the urban tourism economy on sustainable development (Case Study: Tabriz Metropolis). In this research, the Fuzzy TOPSIS model was employed. This research is applied-theoretical in terms of objective and descriptive-analytical in terms of method. The required information and data were collected through library-based methods. The analysis of results based on the Fuzzy TOPSIS model in the case study of the Tabriz metropolis clearly demonstrates that the development of the urban tourism economy has a positive and significant effect on enhancing sustainable development indicators in this metropolis. In the economic dimension, the injection of foreign currency earnings and the creation of local employment opportunities have directly increased the penetration coefficient of micro and macro-economic activities and reduced sole dependence on traditional industries. From a social perspective, tourism, by strengthening cultural infrastructure, preserving the historical fabric of the city, and increasing international interactions, has contributed to cultural enrichment and social cohesion, although challenges such as rising living costs and pressure on public services have also been observed along this path. In the environmental domain, although tourism development has the potential to generate pollution and consume resources, the fuzzy model indicated that targeted investment in sustainable tourism and ecotourism can lead to greater valuation of natural resources and efforts to preserve them, as untouched nature itself is considered a competitive advantage. Ultimately, the prioritization of indicators by Fuzzy TOPSIS emphasizes the need for intelligent resource management and integrated policy-making, such that the economic benefits derived from tourism must be effectively channeled toward strengthening social dimensions and compensating for negative environmental impacts in order to achieve balanced sustainable development in Tabriz. These findings recommend a focus on the quality of tourism rather than its quantity.

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References

[1] Al Babaldi, I., Maleki, S., Soleimani Moghadam, P. (**2023**). The role of tourism economy in the urban development of Lahijan. First National Conference on Tourism, Culture, Civilization and History.

[2] Al-Sadat Dalqandi, M., Fazel, R., Al-Sadat Dalqandi, F. (**2020**). Investigating the economic effects of tourism on regional sustainable development. Quarterly Journal of Geographical Sciences, 16(33).

[3] Askari, S., Zare, M. (**2023**). Sustainable development and diversification of tourism economic activities: A case study of Shiraz. Sixth National Congress of Data Analysis in Humanities.

[4] Falaki, A., Rabbani, A., Norouzi, M. (**2025**). The role of urban tourism in sustainable development: Challenges, opportunities and solutions. Twenty-Fifth National Conference on Geography and Environment.

[5] Faraji, A., Obidi, Sh., Rashedi, A. (**2020**). Economic dimensions of tourism and sustainable income of municipalities (Case study: Tehran Municipality). Quarterly Journal of Economics and Urban Planning, 9(3).

[6] Haq Lesan, M., Arbabi Bostanabad, S. (**2023**). The impact of tourism on sustainable urban development from an economic perspective: A case study of Bostanabad County. Quarterly Journal of Economics and Urban Planning, 4(1).

[7] Hazeri, H., Nazafat Takleh, B. (**2023**). The role of tourism economy in sustainable development of Sarein County. Journal of Geography and Human Relations, 6(2).

[8] Keshavarz, M. (**2019**). Identification of factors influencing sustainable urban tourism development using interpretive structural modeling (ISM): A case study of Khorramabad. Quarterly Journal of Urban Tourism, 6(1).

[9] Khajeh Nabi, F., Zand Moghadam, M. R., Karkeh Abadi, Z. (**2020**). Analysis of social, cultural, economic, environmental and institutional structures in the growth and development of urban tourism: A case study of Galugah. Biannual Scientific Journal of Urban Ecology Research, 11(1).

[10] Moeinian Miandoab, Gh., Fathi, B., Moeinian, P. (**2020**). Requirements of urban management in sustainable tourism development with emphasis on economy (Case study: Miandoab

City). Journal of Geography and Human Relations, 2(4).
[11] Pour Ahmad, A., Pourghorban, Sh., Darban Astaneh, A., Zanganeh Shahraki, S. (**2024**). Future study of spatial-strategic development of urban tourism in Kish Island with a sustainable development approach. Scientific Journal of Geographical Studies of Coastal Areas, 5(1).
[12] Rahmani Tirklaei, H. (**2020**). Framework of ethical principles in the pathology of management and planning of sustainable development of tourism destinations in Iran: A case study of Gilan Province. Quarterly Journal of Geography and Regional Planning, 10(39).
[13] Ramazht, M. H., Karimi Hatami, J., Nojavan Beshniqan, M. R. (**2026**). The role of creative tourism in enhancing urban sustainability indicators (Case study: Ahvaz City). Quarterly Journal of Sustainable Urban and Regional Development Studies, 7(1).
[14] Sadat Akhavi, S. (**2025**). Sustainable management of tourism destinations: Artificial intelligence, challenges and new strategies. Eleventh International Conference on Electrical Engineering, Computer, Mechanics and Artificial Intelligence.
[15] Sharifi Renani, H., Ataei, M., Ghobadi, S. (**2024**). Analysis of the effect of sustainable smart tourism development on the economic growth of selected tourism destinations. Scientific Journal of Space and Place Research in the City, 8(30).
[16] Zeinali Azim, A., Babazadeh Oskuiee. (**2022**). An analysis on creating a livable smart city in Tabriz. Quarterly Journal of Economics and Urban Planning, 3(4).
[17] Buhalis, D., & Amaranggana, A. (**2015**). Smart tourism destinations enhancing tourism experience through personalization of services. In Information and Communication Technologies in Tourism 2015: Proceedings of the International Conference in Lugano, Switzerland, February 3-6, 2015 (377-389). Springer International Publishing.
[18] Burbano, D. V., Valdivieso, J. C., Izurieta, J. C., Meredith, T. C., & Ferri, D. Q. (**2022**). "Rethink and reset" tourism in the Galapagos Islands: Stakeholders' views on the sustainability of tourism development. Annals of Tourism Research Empirical Insights, 3(2), 1-12.
[19] De Siano, R., & Canale, R. R. (**2022**). Controversial effects of tourism on economic growth: A spatial analysis on Italian provincial data. Land Use Policy, 117, 106081.
[20] Grah, B., Dimovski, V., & Peterlin, J. (**2020**). Managing sustainable urban tourism development: The case of Ljubljana. Sustainability.
[21] Kevin, L., Jie, L., Mark, W., Cong, L., Shuzhuo, L., & Ying, L. (**2019**). A comparative analysis of participating and non-participating households in pro-poor tourism in Southern Shaanxi, China. Tourism Planning & Development, (16), 318-333.
[22] Lee, T. H., & Jan, F. H. (**2019**). Can community-based tourism contribute to sustainable development? Evidence from residents' perceptions of sustainability. Tourism Management Journal, (70), 368-380.
[23] Matthew, O. A., Ede, Ch., Osabohien, O., Ejemeyovwi, J., Ayanda, T., & Okunbor, J. (**2018**). Interaction effect of tourism and foreign exchange earnings on economic growth in Nigeria. Global Business Review, (1), 1-16.
[24] Patil, S., & Kant, R. (**2014**). A fuzzy AHP-TOPSIS framework for ranking the solutions of knowledge management adoption in supply chain to overcome its barriers. Expert Systems with Applications, 41(2), 679-693.
[25] Zou, F., Ahmadi Dehrashid, A., Akif Cifci, M., Arslan, E., & Khalighi, N. (**2025**). Exploring the dynamics of creative tourism: A tourist-centric perspective to achieve economic sustainable development. Journal of Mountain Science, 22(1), 278-295.