

## Planning for Strengthening the City's Economic Infrastructure with an Emphasis on Sustainable Tourism (Case: Ardebil City)

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**Abstract:** In the present era, the tourism industry was introduced as one of the pillars of sustainable development and as a powerful tool for economic, social and environmental impacts which, while attracting the participation of the local community in the development of the national economy, has the potential of preserving and protecting natural resources, making environmental sustainability. Today, sustainable development policy is a public approach that governments have been considering to make ecologically sustainable tourism a promising local community in the long run. In this regard, the present study was conducted with the aim of planning sustainable development in the city of Ardebil. The research method is a descriptive-analytic type with an applied purpose. The data used in the research is documentary and field research. In order to achieve the most urgent and deterrent forces in the development of sustainable urban tourism, through the completion of a questionnaire and interview with 40 experts from urban tourism, effective strategies encouraging and inhibiting the development of sustainable tourism were formulated. Then, they were weighed and prioritized, using the network analysis (ANP) model. Finally, based on the most important adversary and deterrent forces, the most sustainable strategies for sustainable tourism development in Ardebil were extracted. The results of the research show that among the forces that encourage sustainable development of the city (creation of employment) the highest priority and among the inhibitory forces of sustainable development of the city (lack of sustainable management in the urban tourism sector) have the highest priority. Seven strategies were also identified and developed for the most important adversary and deterrent forces of city tourism development. Among the strategies proposed, the strategy (optimal and targeted utilization of increased incentives for travel among people to exploit the attractions and products of tourism in order to create employment and income for the people of Ardabil city) was selected as the best strategy. Moreover, in this research, the spatial pattern of the elemental inhabitants of Ardabil city was examined using the geographic information system (GIS) and it was determined that the tourism space of Ardabil city is influenced by the historical space of the city (old texture) and covers the central part of the city (area 1).

**Keywords:** Planning, City Economic Development, Sustainable Tourism, Network Analysis, Ardebil

**JEL Classification:** L83, Q01, N15, D85

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## 1- Introduction

Tourism is a complex economic activity that has penetrated all the pores of human life and is becoming the largest and most profitable industry in the world (Redi & Fernandez, 2014). As 11% of gross domestic product (Kabassi, 2017) accounted for 10% of employment (Fang et al., 2016), 5% of exports and 5% of global investment (Travel, 2015). Tourism trade in many parts of the world is equal to or even greater than that of oil exports, food products and cars (Darcy & Buhalis, 2011). Income from tourism is one of the main drivers of economic growth and a means of coping with the recession and its consequences, such as unemployment (Agiomirgianakis et al., 2014). As it is seen in more than 45 countries as the second-largest source of income in the world (Heydari Sarban et al., 2017), which is a good strategy for increasing income and poverty reduction in these countries (Snyman, 2012).

The tourism industry, as one of the most important phenomena of the third millennium, has had a significant impact on the growth and dynamism of the economy and the cultural exchange of the countries during the last half-century with its own progressive growth (Ashrafzadeh et al., 2010), and as one of the processes of production of space (Low, 2012) is one of the most promising activities known as development pathways (Solnet et al., 2014). Hence, custodians have achieved the goals of tourism by adopting appropriate limitations and solutions for sustainable tourism development (Hassanpour et al., 2011). Currently, many countries receive their economic and social benefits from tourism and use tourism revenues for regional infrastructure development (Eccles & Casta, 1996). Tourism development

is of great importance to developing countries facing problems such as high unemployment, limited foreign exchange reserves and single-product economics (Bazrafshan & Aghaei, 2010; Heydari Sarban et al., 2016). Iran is among the top ten countries in the field of tourism potential and potential (Ghazi, 2000). However, it accounts for less than 1% of the world's tourism revenue (Rahimi Moghani, 2004). Despite the shortcomings in tourism development, Iran has predicted about 20 million tourists at the end of its fifth development plan. The results of the survey shown that only about 13% of these tourists arrived, in other words, this part of the goal of the Five Development Plan has not been achieved (Beyk Mohammadi & Khatami, 2010).

Ardabil city due to the special weather (cool summers), many historical attractions and the existence of a special tourist area of Shorabil, the city receives a large number of domestic and foreign tourists each year, according to the statistics of Statistical Center of Iran, with 928695 tourists entering the city in the year 2016 is the sixth destination of domestic tourists (Statistical Center of Iran, 2016); therefore, the development of city tourism should be the priority of urban planners in order to provide the services and facilities needed by tourists and the economic benefits of tourism to enter the city's economic system. In spite of the many benefits that tourism can make, if tourism planning is not done correctly, tourism development will produce negative environmental, cultural, social and economic impacts. In this case, tourism will not be considered as a lucrative and beneficial activity, but as an adverse and undesirable activity will be considered. Therefore, in planning

and developing tourism, much attention should be paid to the aspect of the sustainability of tourism (Ghafari Gilandeh et al., 2017). Therefore, planning for sustainable development of tourism in the tourism areas, especially in Ardebil, is one of the essential requirements for a tourism city due to the economic, social and cultural development of the city as well as its negative effects (negative environmental, economic and cultural). In this research, it has been tried to plan to develop tourism in Ardebil for sustainable development. In this regard, the status of tourism development in the city of Ardabil has been reviewed and solutions for sustainable development of tourism in this city have been presented in order to increase the economic, social, cultural and environmental benefits of tourism development, the negative effects could be reduced. Accordingly, the present study aimed at identifying the convincing and inhibiting forces of tourism development, determining the appropriate strategies for sustainable development of tourism and recognizing the spatial patterns of tourism elements of Ardabil. In order to fulfill the research objectives, the present research seeks to answer the following basic question:

What are the most recommended solutions for tourism development in Ardabil city considering the factors contributing to urban tourism?

## 2- Literature Review

### a) Foreign Researches

Wall (2016), in his article entitled "Tourism and Development: Towards Sustainable Results of Cultural Tourism and Sustainable Local Development," studied the impacts of tourism development with an emphasis on the development of

cultural tourism and concluded that in the development of urban tourism, cultural characteristics are more exciting.

Liu & Chou (2016), a research entitled "Developing a Tourism Strategy and Facilitating Integrated Processes between Brand Values, Marketing and Motivation in Cities," concluded by using Network Analysis and Digital City Analysis, that while developing urban tourism, the world brand of tourism has also improved, and the city has become a world-wide city by passing the crisis.

Zamfir & Corbos (2015), in a paper titled "Towards Sustainable Urban Tourism Development: A Bucharest Case Study as a Tourist Destination", concluded that the development of cultural and historical tourism was the driving force behind sustainable city development.

Paker et al., (2014), in a paper entitled "The Attitude of Chinese and Australian Tourists to Nature, Animals and Environmental Issues: The Consequences of Designing Nature Based Tourism Experiences", examined the status of wildlife tourism and its conservation and management, and the role of management in protecting wildlife from the threats of the development of tourism is very important.

A review of studies has shown that most studies have focused on different dimensions of tourism. In this research, efforts have been made to determine the persuasive and deterrent forces of sustainable development of tourism in Ardebil in different dimensions, including physical, natural, cultural, management, etc. Through spatial analysis of tourist elements, practical solutions to be provided for in line with the development of sustainable economic infrastructure in Ardebil to plan sustainable city development

in order to form a developed economy based on tourism sustainable development.

#### ***b) Iranian Researches***

Hatami-Nejad & Sharifi (2015), in their study entitled “Investigating the role of urban development on sustainable urban development, case: Sanandaj city”, concluded that the results of statistical tests used in the research indicate that urban tourism in the city of Sanandaj has been able to make Sanandaj more sustainable in an effective way. It had the greatest impact on sustainable economic development and had the least impact on sustainable environmental development.

Mohammadi Deh Cheshmeh (2017) analyzed of the bottlenecks and opportunities for developing urban tourism in Shahr-e-Kord. Despite having high tourism capacity in the historical and natural areas, Shahr-e-Kord faces problems due to lack of infrastructure and welfare facilities and lack of advertising. On the other hand, there is the issue of job creation opportunities for educated young people in Shahr-e-Kord and there is also the arrival of foreign exchange and investment for Shahrekord.

Zia Tavana et al., (2014) in a study entitled “the spatial consequences of the development of the tourism industry and the policies of modernization and improvement in the historical context of Meibod city garden, with an emphasis on the physical-environmental Factors” concluded that although the tourist attractions of the city of Meibod are among the tourist areas with national level performance, with the strengthening of tourism indicators, it is possible to improve the historical texture in short term.

Shokouei & Movahed (2012), in a research entitled “study of urban tourism

spatial pattern in a case study: Isfahan city”, concluded that the tourist area of Isfahan is influenced by the historical space of the city and covers the central part of the city.

### **3- Theoretical Background**

Nowadays, the tourism industry has become one of the largest and most profitable sectors of the world economy and, according to its constructive function; it plays a significant role in economic growth and represents the historical and cultural background of countries (Fang et al., 2016; Moutinho & Vargas-Sanchez, 2018). Urban tourism is a kind of tourism that citizens who are interested in various attractions, such as cultural, historical, religious and natural attractions, while traveling responsibly, also spend part of their time in cities in order to utilize tourism abilities and the city moves towards sustainable development (Wise, 2016). This branch of the tourism industry was further developed in the second half of the 18<sup>th</sup> century by the expansion of urbanization, the promotion of means of transport and, in particular, the development of railways, social change and the rise of the middle class of society and leisure (Zamfir & Corbos, 2015; Rogerson, 2018). Among the various types of classifications presented for the tourism industry, urban tourism is recognized as one of the most important and most prosperous branches of tourism (McKercher, 2016). Urban areas are distinct and complex sites with four general characteristics: physical density over structures (Yang & Wall, 2016), people and functions (Visser, 2017), social heterogeneity, cultural, multi-functional economics (Smith, 2015), and physical centering within the regional and

inter-urban networks (Baum, 2015). In other words, urban centers are often considered as an important tourist destination because of historical and cultural attractions. Due to the concentration of tourist attractions, they require special attention and planning so that, while using these capabilities, the ground to be provided for future generations, called as the sustainable tourism approach (Agiomirgianakis et al., 2014). Cities with diverse attractions include museums, monuments, theaters, stadiums, parks, town hall, shopping malls, historic sites, and places of major events or celebrities attract many tourists; therefore, a large amount of tourist facilities such as the location, catering, transport communications and other tourism services are in cities that visitors use from the surrounding area and the city itself (Koens & Thomas, 2015). In terms of tourism development and especially the development of urban tourism, there are three views:

**Proponents' view:** According to this view, the goal of urban tourism is to acquire cultural and social experiences. Accordingly, most cultural tourists are of particular importance to the existing infrastructure. The group the incentive to expand the industry by pointing to the positive economic and social aspects of urban tourism, including employment, economic sustainability, conservation of natural resources, the maintenance of ancient buildings, the interaction of cultures and the maintenance of peace. This view focuses on developing more facilities, attracting tourists, and thus attempts to minimize the economic problems of society. According to this view, urban tourism is an economic system that, like any other economic system, seeks benefits, and is economically

considered a basic activity. According to this view, the main purpose of the tourist is to make economic profit; therefore, having urban infrastructure is very important (Fennell, 2015; Collins et al., 2018).

**Opponents' view:** In this perspective, tourism will lead to cultural culling and commodification of the culture, increasing crime rates and degrading values. Proponents of this view argue that tourism plans and programs all have the community in the service of currency and earnings, and this income is at a great price (Agamirova et al., 2017).

**Views of the Adaptive Tourism Development:** The idea of this group is the result of the discussion of the two groups, which, by combining statements of support and opposition, provided a kind of tourism development based on responding to the economic values of people and artificial and natural resources. Urban and rural tourism, coordinated and controllable, environmental, cultural etc. are their suggested options. They emphasize on the use of local resources, the ease of management, the destructive role of the guest, the interaction between the guest and the host, and the interests of both groups. This view was introduced in the 1980s, and governments sought to adapt a mix of collective interests and tourism development by adopting appropriate tourism policies for their country and, instead of limiting it, to coordinate development with national interests (Shakeela & Weaver, 2018; Bimonte et al., 2016).

Finally, it can be concluded that urban tourism is a factor in changing space in places and times known to each city (Sinclair-Maragh et al., 2015). In fact, urban tourism can be considered as an important factor in urban development management by concentrating on a part of

urban spaces or infrastructure. As much as the use of this space and facilities, services, amenities and urban attractions is greater, the space and the structure of urban space tend to be more attractive to tourism. In other words, the spatial structure of the city is based on the urban tourism structure (Nunkoo, 2015).

#### **4- Research Methodology**

In the present study, the research method is applied based on purpose, and descriptive and analytical studies. Documentary and field methods have been used to collect data. Questionnaires were developed through library reviews (articles, books, reports, theses, etc.) as well as consultation with experts and tourists from different fields of tourism in Ardabil. The statistical population of the study consisted of experts and tourists from the tourism industry and a sample of experts including experts from various fields of tourism in Ardabil city, which was a total of 80 people. A questionnaire was used to collect data. The questionnaire used in this study was prepared in two dimensions. The first dimension of the questionnaire consisted of 20 questions and 5 questions in economic dimensions (5 questions), environmental dimension (5 items) and institutional dimension (5 questions) have been. The second dimension of the questionnaire included the four dimensions of economic, socio-cultural, environmental and institutional dimensions, which consisted of 3, 2, 9 and 6 questions, respectively. This dimension was related to the deterrent factors of tourism development in Ardabil city. In order to determine the importance

of the tourism development strategy, the data collection tool (questionnaire) was provided to the same 80 people in order to determine the components that affect the development of tourism in Ardabil. In this research, we use the network analysis process to weigh the data and the data analysis tool is Super Decision software. In Super Decisions software, the main pillar is to determine the coefficients of importance of the criteria and components within one or more binary matrices (and within a range of 1 to 9). Weighing of the main criteria and sub-criteria influencing the questionnaire of tourism experts is divided into five important classes: very low (number 1), low (number 3), average (5), high (7) and very high (9) was divided. To prioritize the most important forces contributing to the sustainable development of the city, all the effective criteria and sub-criteria that were weighed by experts entered into the Super Decisions software. Finally, the most sustainable strategies for sustainable tourism development in Ardabil Different strategies were prioritized and extracted. Finally, ArcGIS software is used to analyze the spatial pattern of Ardabil tourism elements.

#### **Research Area**

The city of Ardabil is located in the northeast of East Azarbaijan province at the position of 15, 38 north latitude and 17 48 longitude (Fig. 1). Its distance to the border of Azerbaijan is about 20 km. In terms of its relative position, the city is located on a circular plateau in the southwest of the Caspian Sea between the two mountains of Sabalan and Baghrou and its height is 1263 meters (Ardabil comprehensive plan, 2007).

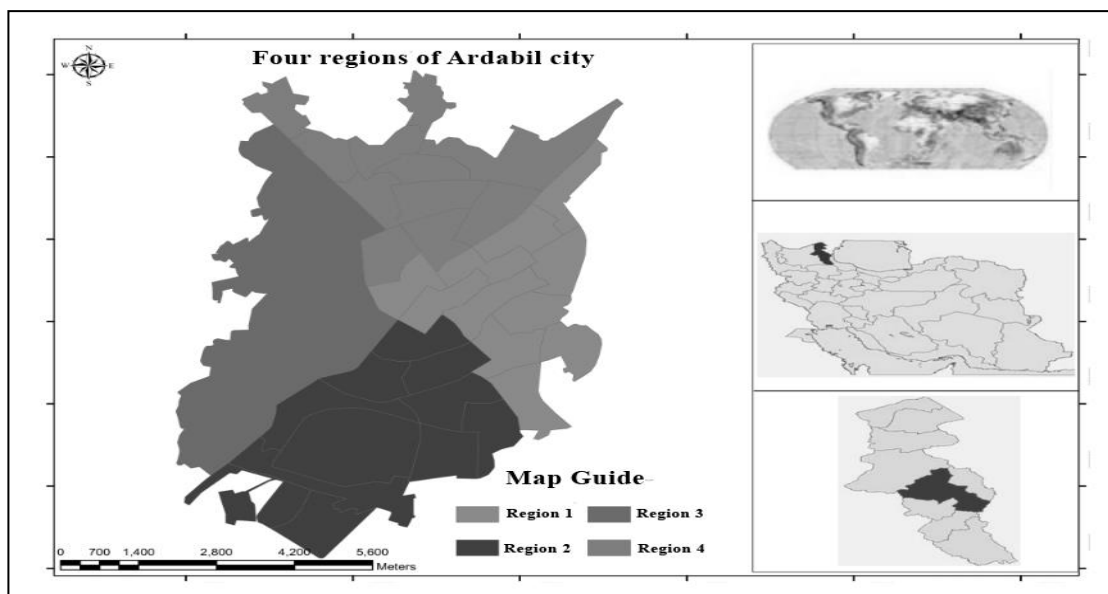


Fig1. Spatial Distribution of Tourism Elements in Ardabil

## 5- Results

The analysis method in this research consists of four main stages:

**Step 1: Determine the Purpose of the Research and the Criteria for Achieving the Goal**

The main objective of this research is to formulate and select the sustainable tourism development strategy of Ardabil city. In order to achieve this goal, four criteria were identified: economic, socio-cultural, environmental and institutional. The reason for applying the above criteria is that a tourist area faces four challenges of economic, social, cultural, environmental and institutional development in order to achieve sustainable development in its tourism. Therefore, in the present research,

these challenges have been considered as criteria for the achievement of sustainable tourism.

**Step 2: Identification of Persuasive and Deterrent Forces - Sustainable Tourism Development**

A list of factors was identified in the economic, social, cultural, environmental and institutional spheres that had a positive or negative impact on sustainable tourism. Selected factors influencing sustainable tourism of the city were designated as encouraging and deterrent forces in the development of sustainable tourism in Ardabil city. These factors have been extracted using library resources, experts' opinions and statistical sources of the Cultural Heritage Organization (Table 1).

**Table1.The factors contributing to the tourism development in Ardebil**

Sub-criteria / persuasive forces	Criterion	Sub-criteria / persuasive forces	Criterion
<ul style="list-style-type: none"> <li>• The existence of old houses and numerous monuments</li> <li>• Promote social life</li> <li>• Promotion of social justice, security and equality</li> <li>• The city's high capacity to host domestic and foreign tours</li> <li>• Recognizing the arts and culture of the city's people to tourists</li> </ul>	Sociocultural	<ul style="list-style-type: none"> <li>• creating jobs</li> <li>• Income</li> <li>• The high potential of the city to attract investors in the field of tourism</li> <li>• Improved infrastructure and public services</li> <li>• Increasing tax revenues from the tourism industry</li> </ul>	Economical
<ul style="list-style-type: none"> <li>• The efforts of city operators to attract tourists to the city</li> <li>• High level of awareness and sense of cooperation and participation among the people of the city</li> <li>• The variety and number of hotels and tourist accommodation locations in the city</li> <li>• Development of promotional activities for city identification and tourism attraction</li> <li>• Annual increase of tourists entering the city</li> </ul>	Institutional	<ul style="list-style-type: none"> <li>• There are cool and pleasant summers in the city</li> <li>• The existence of the lake inside the city as a unique natural attraction</li> <li>• Restoration and renovation of places and historical attractions</li> <li>• Preserve the city environment</li> <li>• The presence of two major tourist destinations (Sarein &amp; Astara) near the city of Ardabil</li> </ul>	Environmental

The inhibitory indexes were also extracted from the table. (Table 2)

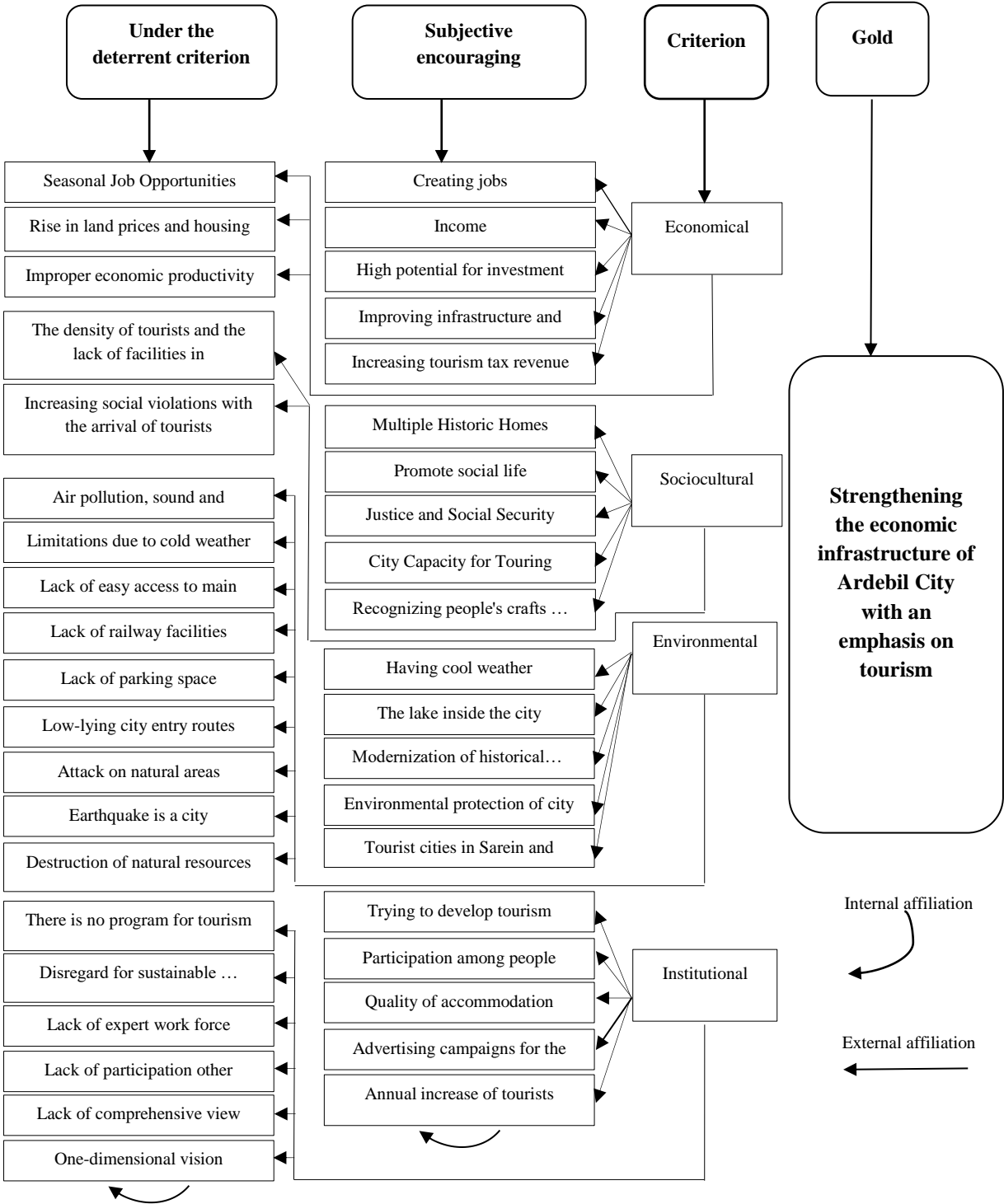
**Table2.Barriers to tourism development in Ardebil**

Restrictive forces	goals	Restrictive forces	goals
<ul style="list-style-type: none"> <li>•The over-crowded population in the seasons of tourism and the lack of facilities and facilities for tourists</li> <li>•Increasing social violations with the arrival of tourists to this city</li> </ul>	Sociocultural	<ul style="list-style-type: none"> <li>• Seasonality of Job Opportunities</li> <li>• Increased sales prices, especially land and housing during the seasons of tourism</li> <li>• Inappropriate planning for economic exploitation of tourist attractions</li> </ul>	Economical
<ul style="list-style-type: none"> <li>•The lack of a program to facilitate and develop winter tourism</li> <li>•The lack of use of sustainable management indicators in urban tourism</li> <li>•Lack of skilled specialists and trainees in tourism in the city</li> <li>•Lack of information and awareness to participate in the private sector</li> <li>•Lack of comprehensive and comprehensive programs in the field of tourism in the city</li> <li>•The rule of view is part of the implementation of projects (in the current state)</li> </ul>	Institutional	<ul style="list-style-type: none"> <li>• Air pollution, sound, landscapes</li> <li>• Limitations due to cold weather conditions especially in cold seasons</li> <li>• Lack of ease of access to the main roads of the country</li> <li>• The inappropriate distance and inaccessibility of the railway project being built with the city</li> <li>• Lack of space for public parking in the city overnight</li> <li>• Expansive communication paths to the city.</li> <li>• Non-control of building structures. Possible invasion of natural areas adjacent to tourist attractions</li> <li>• Seismicity of the city</li> <li>• Pollution and destruction of natural and cultural resources and water resources and the loss of perspectives</li> </ul>	Environmental

Tables1and2 show that in the city of Ardabil there are 20 persuasive forces and 20 deterrent forces. Finally, the model of

the structure of the research network was as follows.





**Fig2. Network structure and internal and external relations of the criteria and sub-criteria of tourism in Ardebil**

**Step Three: Prioritizing Criteria and Sub-criteria**

At this stage, the collected data was analyzed using Super Decision software and using the ANP method, the final

weights of the criteria, sub criteria, or research options were determined for the purpose of the research. Table 3 and 4 show the priority of the criteria and sub criteria of the research.

**Table3. Comparison of the main criteria of tourism development in Ardebil**

Metrics	Economical	Environmental	Institutional	Social	Criterion weight	Criterion Rank
Economical	1	3	4	2	0.21	1
Environmental	1.33	1	3	2	0.16	2
Institutional	2	1.33	1	2	0.12	3
Social	1	1	1	1	0.09	4

The results of Table (3) show that among the criteria of the research, the economic criterion with the coefficient of 21, the first and then the (environmental),

(institutional) and (socio-cultural) criteria, with coefficient of 0.16, 12.0 and 09.0 ranked 2-4.

**Table4. Priority below the research criteria (persuasive forces) relative to the research goal**

Sub-criteria	Index weight	Rank	Sub-criteria	Index weight	Rank
Restoration and renovation of places and natural attractions	0.044	11	creating jobs	0.090	1
Having a city from special weather (cool summers)	0.042	12	Income	0.078	2
The existence of the lake inside the city as a unique natural attraction	0.041	13	Annual increase of tourists entering the city	0.076	3
To introduce the rich culture and the city's arts to tourists	0.033	14	The high potential of the city to attract investors in the field of tourism	0.066	4
The existence of a high level of consciousness and a sense of cooperation with the people	0.033	15	Improved infrastructure and public services	0.062	5
The variety and number of hotels and tourist accommodation locations in the city	0.032	16	The existence of old houses and numerous monuments	0.062	6
Promotion of social justice, security and equality	0.032	17	The city's high capacity to host domestic and foreign tours	0.059	7
Environmental Protection	0.031	18	Development of promotional activities for city identification and tourism attraction	0.054	8
Improving the level of social life	0.031	19	Increasing tax revenues from the tourism industry	0.050	9
There are two major tourist destinations: Sarein and Astara near the city	0.025	20	The efforts and development of city operators to satisfy the tourists	0.049	10

In the next stage, the weight of tourism stimulus indicators of Ardabil city was obtained using the network

analysis method and in the place of Super Decision software according to table. (Table 5)

**Table5. The weight of the indexes (exciting forces) extracted from the Super Decision software**

Indicators	Optimal	Non optimal	Balanced
Having special weather (cool summers)	0.46	0.04	0.04
Diversity and number of hotels and tourist accommodation	0.36	0.03	0.03
Restoration and renovation of places and historical attractions	0.48	0.04	0.04
Promotion of social justice, security and equality	0.35	0.03	0.03
Promote social life	0.34	0.03	0.03
Increasing tax revenues	0.55	0.05	0.05
Annual increase of tourists entering the city	0.83	0.07	0.07
Creating jobs	1	0.09	0.09
Improved infrastructure and public services	0.68	0.06	0.06
The efforts and development of city managers to attract...	0.54	0.04	0.04
Development of promotional activities for city identification and attraction	0.59	0.05	0.05
Preserve the city environment	0.35	0.03	0.03
Income	0.86	0.07	0.07
Recognizing the arts and culture of the people of the city to the tourist	0.36	0.03	0.03
High capacity of the city to host domestic tours	0.65	0.05	0.05
The existence of old houses and numerous monuments	0.60	0.06	0.06
The existence of a lake inside the city as a unique attraction	0.46	0.04	0.04
There are two major tourist destinations (Sarein and Astara) nearby	0.28	0.02	0.02
Existence of a high level of awareness and sense of cooperation and participation	0.36	0.03	0.03
The high potential of the city to attract investors	0.73	0.06	0.06

The results of the prioritization of the reinforcement sub-criteria are also in accordance with the table. (Table 6).

**Table6. Priority below the research criteria (inhibitory forces) relative to the research objective**

Sub-criteria	Index weight	rank	Sub-criteria	Index weight	rank
Poor population density in the seasons of tourism	0.048	11	Lack of sustainable management in urban tourism	0.14	1
Increased sales prices, especially land and housing during the seasons of tourism	0.028	12	Lack of comprehensive and comprehensive programs in the field of tourism in the city	0.10	2
Lack of space for public parking, especially in urban areas	0.025	13	Seasonality of Job Opportunities	0.10	3
Air Pollution, Sound and Landscape	0.021	14	The rule of view is part of the implementation of projects (in the current state)	0.091	4
Expansive communication paths to the city	0.015	15	There was no specific program for snowy and cold months in tourism	0.090	5
Lack of ease of access to the main roads of the country	0.012	16	Lack of information and awareness to participate in the private sector	0.067	6
Expansion of social abuses with the arrival of tourists to this city	0.006	17	Lack of specialists and trainees in tourism	0.061	7
Non-control of construction and the possibility of invasion of natural areas adjacent to tourist attractions	0.006	18	Pollution and destruction of natural and cultural resources and water resources and the loss of perspectives	0.059	8
Inappropriate distance and inaccessibility of the railway-rail project under construction with the city	0.004	19	Inappropriate planning for economic exploitation of tourist attractions	0.058	9
Seismicity of the city	0.003	20	Limitations due to cold weather conditions especially in cold seasons	0.051	10

In addition, the weight of the extracted indicators for the planning forces of Ardabil city has been calculated as numerical table. (Table 7)

**Table7. The weight of the indexes (inhibitory forces) extracted from the Super Decision software**

Sub-criteria	Unoptimal	Balanced	Optimal
Air pollution, sound, landscapes	0.02	0.02	0.15
Non-control of construction	0.006	0.006	0.045
Lack of efficient and comprehensive programs in the field of tourism	0.10	0.10	0.71
Pollution and destruction of natural and cultural resources and water resources	0.059	0.059	0.42
Expansion of social abuses with the arrival of tourists to this city	0.006	0.006	0.04
Increase in sales prices especially for land and housing in seasons	0.02	0.02	0.19
Inappropriate planning for economic exploitation	0.05	0.05	0.41
Excessive population density and lack of facilities	0.04	0.04	0.34
The rule of view is part of the implementation of projects (in the current state)	0.09	0.09	0.64
Earthquake	0.0003	0.0003	0.002
The lack of sustainable management in the city's tourism sector	0.14	0.14	1
Lack of information and awareness for private sector participation	0.06	0.06	0.47
Lack of ease of access to the main roads of the country	0.01	0.01	0.08
Inappropriate distance and inaccessibility of the under construction project	0.004	0.004	0.03
Seasonality of Job Opportunities	0.1	0.1	0.75
Limitations due to cold weather conditions, especially in winter	0.05	0.05	0.36
There was no specific schedule for the cold and snowy months of the year	0.09	0.09	0.63
Expansive routes	0.01	0.01	0.11

The results of Table (6) and (7) show the priority of the research criteria to the purpose of the research. Among the contributing forces, the following criterion for employment creation with

the coefficient of 090 percent has been the highest priority and according to the criteria for income generation, the annual increase of tourists entering the city, the city's high potential for attracting

investors in the tourism sector, improving infrastructure and public services, respectively, with The coefficients of 0.078, 0.076, 0.448 and 0.062 obtained the priorities of 2 to 5. Among the preventive forces, the sub-criterion for the lack of sustainable management in urban tourism sector with the coefficient of 141, has received the highest priority. According to the criteria of lack of efficient and comprehensive programs in the field of tourism at the city level, seasonality of job opportunities, Implementation of projects in the current situation, the absence of any specific programs for snowy and snowy months in tourism, with coefficients of 101.01, 0.106, 0.091, 0.0903, received priorities 2 to 5, respectively.

***Step Four: Development and Prioritization of Sustainable Tourism Development Strategies in Ardebil***

At this stage, using the information from the first to third stages, strategies for sustainable tourism development in Ardebil were formulated and prioritized. For the most important encouraging and deterrent forces (forces ranging from 1 to 5), appropriate strategies are developed. In developing sustainable tourism development strategies in Ardabil city, the views of experts and experts in the field of tourism of this city as well as the results of research findings have been used. In other words, the criteria for developing tourism development strategies in Ardebil were: 1. The interest of development stakeholders in Ardebil, which included high and moderate officials and managers in organizations related to this issue; 2- The effectiveness of the strategy: To this end, we tried to use strategies that are effective in stimulating incentives and forces, as well as effective control of the deterrent and

negative forces. 3. Efficiency: Based on this, we tried to develop strategies for using strategies for use which, given the amount of resources available in the city, has the most economic and social benefits and prevent the waste of resources. Finally, strategies for sustainable tourism development in Ardebil are presented below.

A-1; Optimal and targeted utilization of the incentive to travel among people in order to exploit the attractions and products of tourism in order to create employment and income for the people of Ardabil, as well as diversification and the creation of markets and the provision of artistic and other occupations Affiliated with and complementary to tourism activities, including the sale of dairy products and honey in order to create jobs and create sustainable incomes in tourist attractions, especially the Shourabil region.

A-2; reviewing and reforming tourism laws with an emphasis on sustainable tourism and the development of strategic tourism plans on urban scale, as well as encouraging people to participate in the development of the tourism industry in order to earn income and give special privileges to investors, in particular (private sector) in the field Tourism.

A-3; Establishment of coordination among public and private institutions and agencies to integrate sustainable tourism in the city; and formulate regulations and regulations on tourism development and reform of management institutions; and the application of specialized management in the tourism sectors and management stability for the implementation of long-term plans In order to integrate tourism development functions by holding meetings and implementing coordinated management measures with the participation of governmental, non-governmental, people

and entrepreneurs, as well as the greater interaction of city authorities with provincial and national centers for coordinating realistic planning in the development of tourism The city.

A-4; Principal investment in the development of tourism infrastructure, in accordance with the needs of the urban community and tourists entering the city, and the development and equipping of the city in terms of facilities and equipment for tourism, such as welfare and accommodation, health centers, and transportation Governmental support also has the capacity to determine the desirable level of population density in various tourist destinations in order to reduce the pressure and density of these places and attractions and prevent it from being destroyed and destroyed.

A-5; Organizing and organizing single elements of tourism, history, identity, open and scattered spaces inside and outside the city in a general tourism system in the city and creating a fund to

support and manage beautiful and attractive areas in the city and restoration of monuments and historical buildings.

A-6; Construct and exploit private and entrepreneurial support for investment in the tourism industry of the city with the support of the government, such as subsidies and banking facilities, and the revision of current projects and projects, and the use of public participation in The tourism section for the transfer of work to the local people.

A-7; investment in the types of tourism, especially winter tourism, such as the establishment of winter festivals revolving around snowy game, ice and sculpture, organizing music programs, traditional rituals, cooking local dishes, various winter sports competitions with snow and ice and create Exhibitions and winter markets to prevent the recession in the cold season and reduce the seasonal dependence of tourism flows to summer (Table 8).

**Table8. Prioritization of Sustainable Tourism Development Strategies in Ardabil City**

Deterrent sub-criteria's	Deterrent criteria's	Sub-encouraging criteria's	Sub-encouraging criteria's		Deterrent sub-criteria's	Deterrent criteria's	Sub-encouraging criteria's	Encouraging criteria's		Strategy
0.212	0.247	0.257	0.251	Sociocultural	0.241	0.231	0.255	0.275	Economic	1-A
0.254	0.258	0.423	0.243		0.265	0.342	0.198	0.122		2-A
0.169	0.320	0.211	0.193		0.245	0.333	0.241	0.189		3-A
0.136	0.256	0.188	0.185		0.263	0.298	0.243	0.320		4-A
0.241	0.365	0.143	0.201		0.241	0.247	0.187	0.183		5-A
0.277	0.321	0.154	0.187		0.257	0.410	0.165	0.362		6-A
0.269	0.122	0.142	0.142		0.266	0.321	0.245	0.237		7-A
0.245	0.302	0.333	0.254	Institutional	0.247	0.25	0.330	0.212	Environmental	1-A
0.273	0.374	0.410	0.342		0.258	0.175	0.287	0.130		2-A
0.234	0.246	0.325	0.336		0.301	0.241	0.245	0.147		3-A
0.233	0.243	0.240	0.241		0.241	0.203	0.199	0.208		4-A
0.198	0.214	0.243	0.244		0.251	0.214	0.200	0.197		5-A
0.190	0.186	0.190	0.87		0.180	0.190	0.179	0.154		6-A
0.167	0.170	0.165	0.146		0.212	0.263	0.250	0.288		7-A

The results of Table (8) indicate that among the strategies presented, the 1-A strategy with the highest of 218% is prioritized, and then strategies 2-A, 3-A, 4-A, 7-A, A- 6 and -A 5 respectively

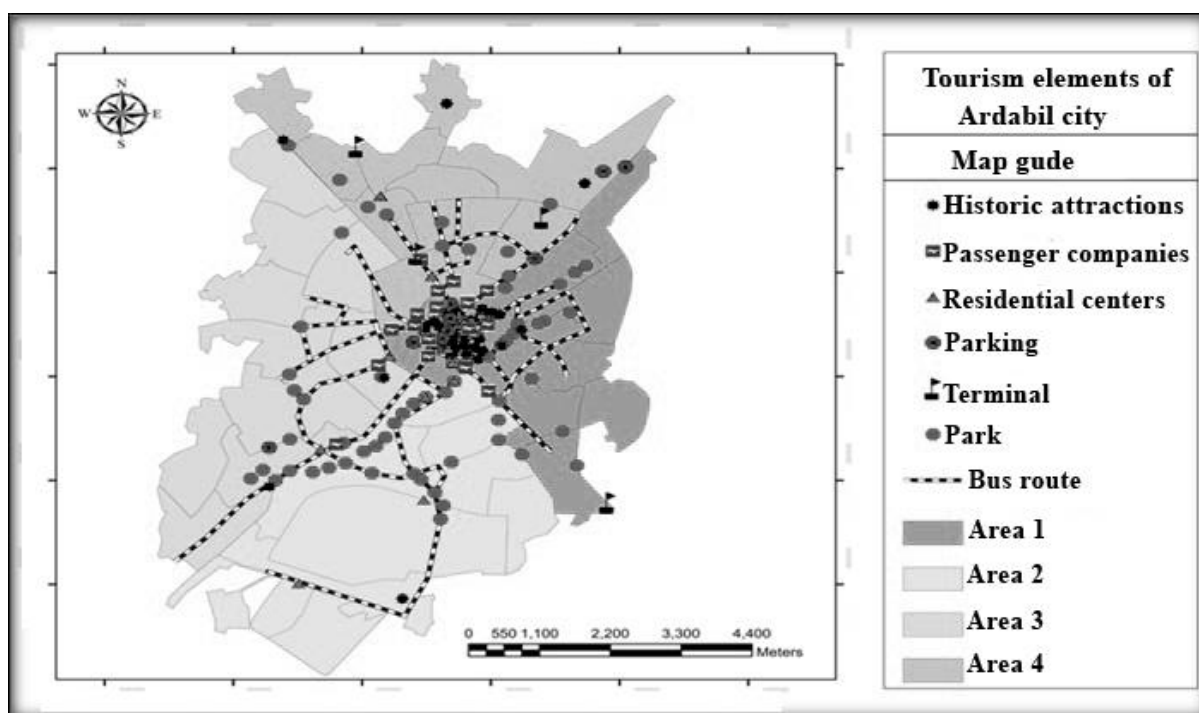
ranked 2 to 7 with 0.195, 0.164, 0.115, 0.113, 0.102 and 0.090 respectively.

#### *Analysis of spatial patterns of Dispersion of Tourism Elements of Ardabil Using GIS*

In this study, spatial patterns of tourism elements of Ardabil city were identified

and spatial analysis of urban tourism elements using GIS (GIS). The tourism elements that have been evaluated in this study include tourist attractions (historical attractions and amusement parks),

transportation facilities, residential centers, travel companies, parking lots and terminals located in the city. Figure 3 shows the spatial distribution of the tourism elements of Ardabil city.



**Fig2. Spatial Distribution of Ardabil Tourism Elements**

Figure 2, spatial patterns of tourism elements of Ardabil city composed of different layers was integrated using GIS (Geographical Information System (GIS) and it was determined that the tourism space of Ardabil city is influenced by the historical space of the city and covering the central part of the city Gives. Most of the attractions in the city of Ardebil are of human type and are local.

The center of the historical attractions is located in the 1<sup>st</sup> district of Ardebil. The spatial distribution of parks in the city is mostly distributed in regions one, two and four, and given that most tourist attractions are located in areas 1 and 2, tourists can easily access the green space for rest and recreation. The center of the

center is the residential center on Imam Khomeini Street, located in District 1, so its placement in this section is due to the accumulation of tourist attractions in this area. In Ardebil, only 12 places are registered as parking lots, which are generally located in area 1, and other than, the region citizens and tourists park their vehicles from open spaces and areas that are currently abandoned, as well as the marginal park in beyond the streets. Passenger companies in Ardebil are scattered more often in regions 1 and 4. In terms of number of passenger companies, the city has no shortage. The terminals of the city of Ardebil are generally located in the 4<sup>th</sup> zone, and its non-interference with intra-city traffic is one of the

advantages of the transportation structure of Ardabil. Bus routes are almost decent distribution in the city, with the exception of new settlements that are not yet fully built.

## 6- Conclusion and Discussion

Iran has countless natural, cultural and historic attractions, each of which can accommodate many tourists and tourists. The city of Ardabil has many abilities in tourism, and if these capabilities are used in the right direction, there will be a unique collection of tourism that can act as an industry for the economic development of this city and many economic gaps. And a long step in the development of tourism. Accordingly, the purpose of this study was to study the planning of strengthening of economic infrastructure with emphasis on sustainable tourism development in Ardabil. Using the network analysis process (ANP), the most important incentive and preventive forces of tourism were analyzed to determine the most appropriate strategy development and sustainable development of Ardabil city should be identified and prioritized. The results of this study showed that Ardebil, with the presence of persuasive forces, is also facing the deteriorating forces of tourism development, which needs to review and propose appropriate policies to eliminate the deterrent forces and use of persuasive forces. The results of the research show that the economic criterion among the other criteria of the research is considered the most valuable criterion. Among the encouraging forces, the criterion of employment creation is the most valuable sub-criterion among the preventive forces below the criterion of non-use of sustainable management in the urban tourism sector.

The results of this research are in relation to the role of economic infrastructures in tourism development with the results of Heidari Chianeh (2004) and Meshkini et al. (2012). Also, among the strategies for sustainable development of the city, the strategy of optimal and targeted use of increasing the incentive for travel among people to exploit attractions and tourism products in order to create employment and income for the people of Ardabil as the best strategy. Became this finding is consistent with the findings of Ghafari Gilandeh et al., (2017) and Aminian (2015). In the dimension analysis of the spatial pattern of tourism elements, Ardebil district 1 in the first rank and then 4th city in the second rank have the most elements of the city's tourism. Therefore, in order to find the scientific answer to the main question of the research that the best solution or strategy proposed for the development of tourism in the city of Ardabil, it can be said that the main problem and, consequently, the main solution to strengthen the tourism infrastructure of the city of Ardabil must be concentrated. It is economic in nature and will be strengthened through public, private and private sponsorship of infrastructure investments.

The tourists will be provided with the necessary information through the provision of tourist guide stations. One of the things that can be done in this area is the installation of help boards in different languages. Accordingly, in the planning dimension for sustainable tourism in Ardebil, attention should be paid to employment and unsustainable management (non-specialized management, extraordinary power structures, managers' value-oriented look at the tourism industry, management without funds and disability) from the

tourism industry body Remove city. Also, from the spatial dimension, district 1 and, in part, the 4th district of Ardabil, should be covered in terms of tourism infrastructure in order to provide tourists with the full pleasure of tourism in the city and to re-enter this city in their recreational programs.

In addition, based on the results of this study, the distribution of tourist terminals and offices of passenger companies is mostly in districts one and four, which are the gateway to the arrival of tourism to the city, in this regard, it would be better to develop residential and welfare centers in these two regions. In addition, it is suggested that:

- Variety of facilities, activities and tourism services in order to satisfy the tourists.

- Investing in cultural sectors and educating local people to make good communication with tourists

- Establishing rules for the preservation of natural, cultural and historical attractions in the city.

- Preparation of marketing and advertising plans and identifying the city's tourism potential at the national and transnational level

- Creation of seasonal camps for the establishment of tourists at tourist attractions, especially along the Balkhlu River (the river of fish) encountered by crowds of tourists.

- Expansion of services and infrastructure necessary for setting up tourist accommodation and recreation throughout the year.

- Organizing specialized meetings with the public to receive and appropriately welcome tourists, and to provide brochures, magazines, and free educational films and distribute them among the people to encourage them in the process of attracting tourists.

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