

# DEVELOPMENT OF TOURISM INDUSTRY DEVELOPMENT STRATEGIES IN THE CONTEXT OF ICT

**Mahyar Hassan Khan, Tehran University**

## ABSTRACT

*The tourism industry, as the largest service industry in the world, is one of the important sources of economic prosperity (creating employment, earning foreign currency, reducing poverty, etc.) and increasing exchange and social interaction. Therefore, regions that have tourism capacities should choose appropriate strategies to enjoy the economic and socio-cultural benefits of the mentioned industry. In order to develop a tourism strategy in East Azerbaijan province, first all the weaknesses, strengths, opportunities and threats and the importance of each were determined through a questionnaire by the experts and managers of the tourism organization of this province. IFE) and external factors evaluation matrix (EFE) were developed. The results showed that the strategic situation of the investigated province is in a competitive state and according to the opinions of the experts, the desired strategies have been formulated which will lead to the development of the tourism industry of this province.*

**Keywords:** Tourism Development, Information and Communication Technology, East Azerbaijan, SWOT Technique.

## INTRODUCTION

In today's world, tourism is considered as one of the most dynamic forces of economic growth of countries, which boosts factors such as employment generation and income generation of countries. These issues have caused many local, regional and national managers and planners anywhere in the world to plan and try to expand this industry. Tourism marketing is defined as a management process that includes forecasting the needs and satisfaction of current and future tourists. From the researchers' point of view, the mixed elements of tourism marketing form the basic foundation of the tourism marketing system, because it has a combination of elements necessary for the planning and implementation of the entire marketing operation hence the attention to the role of marketing. It is prominent and important in tourism. On the other hand, most of the developed countries (which have receptive systems in the face of new technology) have accepted the benefits and possible risks of information and communication technology and its applications and use it (Andrades & Dimanche, 2015).

They do. Some of the developing or poor countries that do not have enough information about the benefits and opportunities of this technology, or lack the necessary economic facilities to use this phenomenon, have fallen behind in this field. There are also countries that do not have a particular financial problem, but they look at this emerging phenomenon with an ideological approach and cause delays or prevent the people of their country from using it. Unfortunately, this approach causes irreparable damage to the society. Because all dimensions of this phenomenon are not known even in some developed countries. Therefore, culture-building and pathology in the field of introducing information and communication technology and its applications is considered an effective measure. In general, the global challenge created in the field of management, which has taken on other

colors and effects with the emergence of the information technology phenomenon, is the most important and perhaps the most effective human achievement during the last few centuries, to the point where information has been introduced as the most important commercial product of the current century. Today, the importance of information and its role in making a correct decision is not hidden from anyone, so that from a scientific point of view, a rational and logical decision is 90% based on timely and correct information and 10% based on inspiration and intuition. Information technology, which mainly has the task of preparing and processing raw data, transferring data and information in a way that can be used for the management of the organization and users, and in this way improves the decision-making of managers and decision-makers and increases their efficiency (Andrades et al., 2015a).

The direct and indirect impact of information technology on all structures and levels of people's normal life and the influence and instrumental development of this new era phenomenon in the most complex activities has been the most effective factor in the technological development and consequently human information. Information and communication technology plays a key and important role in the tourism industry and its integration with tourism is very vital for success in the tourism industry. Information and communication technology has the task of facilitating a person's access to tourism services anywhere and at any time. Information and communication technology empowers consumers to identify order and buy tourism products and support the globalization of this industry by providing tools for development, Management and distribution of offers. Currently, the information and communication technology industry is becoming one of the competitive factors in organizations, which has increased the quality and service of organizations. It is also obvious to everyone that there is no industry as valuable, effective and with maximum economic and cultural efficiency as the tourism industry in a country with Iran's climate. The country of Iran with its ancient civilization and nature of four seasons, having hundreds of tourism components, is considered one of the most unique countries in the world in the field of tourism. Iran should be considered as one of the most capable countries in the world in terms of attracting tourists, which requires the development of appropriate strategies in this field. Therefore, considering the increasing importance of tourism, the aim of this article is to develop appropriate strategies for the development of Iran's tourism industry in the context of ICT (Andrades et al., 2015b).

## REVIEW LITERATURE

### The Concept of Tourism

Tourism in the word means tourism, domestic and foreign travel. In the dictionary, tourism has been defined as the world of traveling for knowledge, entertainment and entertainment, as well as a trip in which a traveler goes to a destination and then returns to his place of residence. The set of activities of a person or people who travel to a place other than their normal place of life and stay there for at least one night and at most one year, and the purpose of their travel is to spend leisure time. Of course, goals such as employment and earning money are not included in it. Therefore, those who are included in this definition are also called tourists. Also, in tourism literature, a tourist is someone who, for a purpose other than work and earning money, for more than a period of time one night and less than a year, he sets foot in a land other than his usual environment and settles there (Hawkins & Mann, 2007).

A tourist is defined as a person who meets two conditions: first, he has been away from his place of residence for less than one year, and second, he has earned money in a new place. Do not earn. According to the definition, one-day visitors are also included in the

definition of tourists. Tourism includes all the activities that tourists do during their travels and are related to them, and this can include planning for Travel is a transfer between origin and destination, accommodation and the like (Dimanche & Andrades, 2015). Tourism includes all the activities that tourists do while traveling and is related to them, and this can include planning for travel, moving between origin and destination, and the like. This definition includes four stages of consumer behavior that sometimes overlap with each other.

- a) Pre-trip activities that include obtaining information in the pre-trip stage from various sources such as friends and family, tourism brochures, etc., saving space for travel in transportation and accommodation or in general the program and Travel packing, and finally getting ready for the trip.
- b) Traveling from the origin to the destination and vice versa, this Nov take more than one day.
- c) What the tourist does at the destination, such as visiting an attraction, or participating in a tourist event that has a very diverse nature.
- d) Behaviors after the trip, such as printing photos taken during the trip and sharing memories with others

In general, the tourism industry, as the most diverse and largest industry, is the most important source of income and job creation for many countries in the world. This industry is called as the engine of development, due to its economic importance, social is getting more and more attention day by day and governments give importance to it and today it is one of the main and stable foundations of the world economy and among the important industries with fast growth in the economic development of the world, which by creating the highest amount of added value in the form of It can directly and indirectly affect other economic and cultural activities.

### **The Concept of Information Technology**

Information technology is the use of software, hardware, software, and human software that can provide accurate, timely, complete, reliable and relevant information to policy makers and decision makers. Information technology means the use of computers and telecommunications to understand the reality of the phenomena of the world around us. In other words, to study, design, develop, implement, support or manage computer-based information systems, especially software programs and computer hardware. Briefly, information technology deals with issues such as the use of electronic computers and software to convert, store, protect, process, transmit and retrieve information in a safe and secure manner (Dodds et al., 2017). Any technology, including any device or technique, is considered here. Generally, in information technology, work with information is considered only through computer and communication technologies and related products. It should be noted that the word technology is the study of how to use human creations to achieve goals and objectives such as providing products and services. This word does not only refer to the human artifacts themselves.

### **The Role of Information Technology in Tourism**

Today's world has inevitably become a global village with wide and deep connections. Today, information and the technology of its use have emerged as one of the main keys in the development of countries, especially third world countries. On the other hand, tourism is also growing. The passage of time has become an income generating and saving industry for different countries today, in such a way that the incomes from it in some countries are several times the oil rich incomes of other countries (Jorgenson & Stiroh, 2015). The need to pay attention to tourism and use new technologies to expand it and use its numerous economic benefits for countries has made it necessary to research and trace the relationship between the development of information and communication technology and the development of tourism. In today's era, deep technological transformation, mechanisms and

conditions, and as a result, technical and technical discussions have tended towards more complexity, variety and sophistication. And it is the exchange relations that are expanding in the matter of globalization on the basis of tourism, which is considered in a special approach in the third millennium; it has accepted developments that have led to its universalization. The developments resulting from the above discussions in relation to tourism have a two-way impact, on the one hand, it has led to the formation of electronic tourism, and on the other hand, it has caused the formation of virtual tourism, and with The rapid growth of information technology in the framework of the electronic exchange system and speeding up marketing and travel has provided reduction of costs and access to new markets in the field of tourism. In general, information technology has 3 major roles in the development of tourism, which are from:

### **Support role**

In this role, the main and central activity of tourism is done without the use of technology, but the use of technology greatly helps the way the activities are carried out or develops them. Facilitates work. (Dodds, 2017)

### **The pivotal role**

Technology plays a central role for some organizations, which means that without using it, although you can continue to operate, the difference between using and not using technology is huge. Like using a computer type system in a newspaper or publishing house. Regarding the tourism industry, the situation is the same and the promotion and coordination of tourists using information technology plays a central role (Andrades & Dimache, 2015).

### **Strategic role**

In the late 1970s and the entire 1980s, the attention of companies and organizations was directed to how to use computer and informatics technology in other vital and strategic parts of the organization. On the other hand, technological developments in this field and the sharp reduction in prices caused the use of IT services to increase sharply. In this period, the design and implementation of information systems and the automation of information systems were discussed and even consulting companies were established, whose purpose was to help the strategic planning of organizations and the development of information systems. The use of information technology is meaningless. Like the communication network for selling plane tickets by using computers in communication systems (Dodds, 2017).

### **Stages of Using Information and Communication Technology in Tourism**

The first step in communication and information technology is to create a strong and usable database. This bank consists of goals, products and suitable facilities in this field. The existence of a database is one of the tools of this technology, and with its use and regular planning; extensive activities can be carried out at a high speed. The costs spent to create a database, compared to the failure to form this bank and move towards the growth and promotion of this industry can create very high costs.

### **The first step**

Knowing the government organizations related to the tourism industry in the city, non-governmental organizations and tourism companies in the whole country, recreational

tours inside the country, student tours, people interested in tourism, and recording this information in the database is the first step. For example, assume the above groups are customers and the tourism organization is the marketer (Nilsson, 2004). The first activity of a marketer is to know the objectives, strong communication and precise identification of the market so that by receiving the opinions and demands of the customers, he can provide the best type of goods to the manufacturer according to their demands.

### **The second step**

Accurately knowing the tourist attractions of the city and collecting their detailed information and registering them in the database. These attractions can be divided as follows: historical, natural, recreational, pilgrimage, industrial, scientific, research, sports, therapeutic, exhibitions and other natural factors such as weather, soil, mineral resources, etc. can be named.

### **The third step**

Collecting all available city information such as hotels, restaurants, camps, streets, medical centers, banks, ATMs, etc. After collecting the mentioned information and registering them in the database, the first stage of this technology in the field of tourism has been completed. (Khosh Nit, 2015). Also, four important features can be proposed as reasons for prescribing the expansion of the use of information technology for the prosperity of the tourism industry:

The first feature is the low average capital required to create any job in the fields related to information technology in this industry. Especially considering the severe lack of investment resources in the country on the one hand and the large number of job applicants on the other hand, this feature is very important. In fact, the expansion of jobs related to the Internet makes it possible to create a significant number of new jobs in this industry without the need for huge investments, and such a problem especially for countries with a lack of financial resources to invest in this (Werthner & Forer, 1999).

The sector is facing, can be considered very important. The second feature is that with the rapid growth of demand worldwide for services related to information technology such as advertising, marketing, programming, network security services and content production for internet sites in tourism (Yamani et al., 2017). The expansion of information and communication technology in this sector seems necessary. Another important feature that causes the positive impact of the development of information technology on the tourism industry is: the important role of information and communication technology in reducing costs by a large number of economic enterprises and government departments in providing services to tourists; For example, through electronic services, the average time required for their presence at the workplace is reduced. Such a process leads to savings in side costs caused by their presence at the workplace. The last feature of the channel is the influence of the development of information and communication technology on the tourism industry, due to the influence of information and communication technology in attracting tourism. In today's world, most of the tourists determine their travel location through internet search because the traditional system takes a lot of time and money (Porfarj et al., 2017).

## **EXPERIMENTAL RESEARCH**

Regarding the role of information and communication technology, various researches have been carried out, among the most important of which, the following researches can be mentioned.

Mansoori (2023) in an article entitled the effect of the adoption of information technology on the development of e-tourism, stated that tourism has different effects and consequences on the economic, social and cultural situation, but the introduction of information technology has caused the emergence of a new field called e-tourism, which is accepted in Tourism sectors have a significant impact on the development of this field. Therefore, in this research, we intend to examine the factors influencing the acceptance of this technology and also some models for the acceptance of information technology are introduced. The research method used in this research is descriptive and applied in nature, and the method of collecting information is in the form of a library. The necessity of this research is for the authorities of the country to notice that the development of e-tourism depends on their acceptance that they must provide the necessary plans for this.

Ehsani (2022) in an article titled "*Inspection of the impact of information and communication technology on the development of the tourism industry*" stated that the emergence of information and communication technology 1 and the spread of new technologies including the Internet 2 followed by the emergence of websites, networks 3 and Virtual social media 4 has changed the tourism industry 5 all over the world in an unprecedented way. These changes indicate the emergence of many great opportunities and challenges for companies and organizations and even tourists in the field of tourism industry (Eugenio-Martin et al., 2004). Chabahar port in Sistan and Baluchistan province as a strategic center and the only ocean port in Iran due to its special capabilities and potentials in the field of tourism industry, with the support, unity and empathy of all managers of executive bodies as well as the private sector. By using the tools and all the capacities of the information and communication technology sector, it can become a smart and creative port in order to attract tourists (domestic and foreign), fill the leisure time of tourists, and also cause the development and prosperity of the tourism industry at the national level. Become regional and even international.

Khoshnit (2015) in an article titled "*Evaluation of the Concept and Nature of Electronic Tourism and Sustainable Development*" stated that the ever-increasing expansion of new technologies has rapidly brought the four corners of the world together and reduced the time, place and cultural distance to a great extent. And it has made it possible for researchers and the present generation to use it in any part of the world to know the identity and past of their society and other societies. In this new information society, in addition to the positive results of the application of technology in terms of economy and so on, the degree of authority and stability of each nation or society also depends on the way of introducing its historical cultural identity by adopting a comprehensive and innovative solution.

Safaipour (2014) in another article entitled the effect of the use of information and communication technology on the formation of e-tourism among tourists entering the city of Shiraz stated that the correlation between the two categories of "*electronic readiness of tourists*" and "*the degree of familiarity of tourists with the concept of tourism*" Electronic " at the 99% confidence level is equal to 0.798 and the correlation between "*the level of electronic preparedness of tourists*" with "*the level of use of Fava by tourists*" in matters related to tourism is 0.856 and the correlation between "*the level of familiarity of tourists with the concept of electronic tourism*" with "*The rate of use of Fava by tourists in matters related to tourism*" is 0.649. Therefore, despite the existence of suitable fields in terms of electronic preparation of domestic tourists to use Fava in tourism affairs, tourists are not very familiar with the concept of electronic tourism and its applications, and they use information and communication technology in tourism-related matters. Also, they do not consider the current situation of using information and communication technology in the affairs of Shiraz tourism to be very favorable and satisfactory, except in special cases. Despite this, Fawa's

manifestations and tools, especially radio and television, satellite and internet, have played an effective role in choosing Shiraz as their tourist destination.

Farhadi et al. (2012) in an article entitled "*The role of information technology in the development of the tourism industry*" stated that the use of new technologies in the tourism sector can help in the identification, advertising and marketing of tourist attractions and ultimately the development of tourism, job creation and economic development of the country.

Yousefi (2013) in a research entitled "*The role of information and communication technology in the sustainable development of tourism*" stated that technology has been able to have a great impact on companies, but it has not yet been able to significantly reduce the number of in-person visits to travel service offices for booking tickets and hotels.

Mohammadi & Behari (2013) in an article titled "*Reviewing the role of technology and communication in the development of the tourism industry*" stated that currently, parallel to communication and expanding the borders of knowledge and technology, new fields have emerged for cultural and social exchanges between the nations of the world. And that the tourism industry is the largest national income for some countries in the world. Paying more attention to information technology in the development of the tourism industry seems quite logical and economical. In the years, information technology has revolutionized the working methods in all organizations, especially the tourism industry. Appropriate modeling of countries that currently have a good ranking in this industry, both in terms of number and income, can shorten and optimize the path to success as much as possible.

Sheldon (2017) in an article entitled Electronic tourism, a solution for strategic management of tourism, deals with the relationship between strategic tourism management planning and information and communication technology. One of the main discussions of this research is dealing with the space storage system as one of the points worthy of attention in the field of electronic tourism. He examines the subject of electronic customer orientation, i.e. the behavior of tourism industry consumers in the age of information and communication technology.

Dafti (2016) in an article titled "*Information Technology and Tourism, Threats and Opportunities*" discussed topics such as electronic economy, role of geographic information system in tourism development, destination management system, reservation system, global distribution system and customer management system. . He considers the development of virtual tourism as a valuable solution to deal with cultural problems and also prevent the destruction of tourist and ecotourism works.

Jorgensen et al. (2015) showed that the use of information technology in the tourism industry has made it easier and more convenient for tourists to access their travel needs in many cases; including getting a ticket, as well as booking a place to stay and getting information about the desired area before doing the actual zero, which has made tourists feel more satisfied to travel.

Martin et al. (2014) stated that the design and management of tours and the use of modern communication and information methods based on information circulation systems and chain operations in the hotel industry, contextualizing the entry and generalization of the use of modern hardware and electronic equipment, especially in the hotel industry also have a significant impact in this field.

## RESEARCH METHODOLOGY

The research method in this article is descriptive-analytical and of the research-applied research type, which on the one hand examines the dimensions, definitions and theoretical framework of the research with documentary and library studies, and on the other

hand with detailed field observations as well as referring to organizations and departments. The relevant person collects the necessary data and information in the scope of the study to obtain an answer to the research questions and its test. Finally, it has been used for data analysis and presentation. The statistical population of the research included all the experts and managers of the tourism organization of East Azarbaijan province, whose number was equal to 127 people and 95 people were selected as a sample using Cochran's formula. In order to collect the required information, a semi-structured questionnaire was developed in the form of an interview to identify a list of strengths, weaknesses, opportunities and threats related to the development of tourism in this province in the context of information and communication technology. After collecting the required information, content analysis was conducted. Interviews were conducted, and finally, in four dimensions (weaknesses, strengths, opportunities and threats), the issues raised in the form of a closed questionnaire were provided to the statistical sample to determine the weight of each of the issues raised. . According to the meeting point of the matrix of internal and external factors, suitable strategies for the development of tourism in this province were formulated. The appropriateness of the questions of the questionnaire was examined by the managers of the tourism organization of East Azarbaijan province, and after applying the corrective comments, the final questionnaire was formulated. The SWOT approach was used to analyze the collected data, which can be explained as follows.

One of the most appropriate planning and analysis techniques that today is strategy analysis, the SWOT matrix as a new tool for analyzing the performance and gap status, is used by strategy designers and evaluators (Nilson, 2004) SWOT matrix is a tool for identifying threats. and the opportunities available in the external environment of a system and re-examining its internal strengths and weaknesses in order to assess the situation and develop a strategy for guiding and controlling it. SWOT analysis aims to maximize strengths and opportunities, threats Minimize external weaknesses, turn weaknesses into strengths, and take advantage of opportunities while minimizing both internal weaknesses and external threats. In this model, by identifying strengths, weaknesses, opportunities and threats, the organization can design and compile strategies based on strengths, eliminating weaknesses and taking advantage of opportunities or using them to deal with threats. Strengths and weaknesses are identified by evaluating the internal environment, and opportunities and threats are identified by evaluating the external environment. For this purpose, strengths, weaknesses, opportunities and threats are linked in the framework and the options SO, WO, ST, WT overall strategy is selected from among them.

## INTRODUCTION OF THE STUDY AREA

East Azarbaijan province is one of Iran's provinces, which was called East Azarbaijan during the Pahlavi rule. This province is considered the largest and most populated province in the northwestern region of Iran (Azerbaijan). East Azarbaijan Province is bordered by the Republics of Azerbaijan and Armenia from the north, West Azerbaijan Province from the west and southwest, Ardabil Province from the east, and Zanzan Province from the southeast. This province has a cold mountainous climate and the entire area of the province is made up of mountains and highlands. The area of East Azarbaijan Province is 45,491 square kilometers, which makes it the eleventh largest province of Iran. The orbits of 45 degrees and 5 minutes, 47 degrees and 30 minutes, 36 degrees, 22 minutes and 39 degrees determine the geographical coordinates of this province. East Azerbaijan region is one of the sensitive and important regions of the country due to its special geographical location. This importance, sensitivity and extent have caused this region to be divided into three provinces of East



Azerbaijan, West Azerbaijan and Ardabil despite the common features of geography, culture and history. Although East Azerbaijan is considered one of the most important provinces in the country in terms of the variety of tourist attractions, it has some unknowns even for domestic tourists, with the introduction of which big steps can be taken in the direction of the endogenous development approach of economic growth. East Azerbaijan in terms of geography And weather conditions, natural and historical attractions, architecture, handicrafts are considered one of the important tourism poles of the country. This province is considered a suitable destination for tourists and travelers in the summer season due to the diversity of historical monuments and favorable weather conditions.

### FINDINGS

By using the SWOT technique, the weaknesses, strengths, opportunities and threats for development in the tourism industry of East Azerbaijan province were identified and determined, and the results are as described in the following table 1 & table 2.

<b>Table 1 WEAKNESSES AND STRENGTHS OF TOURISM DEVELOPMENT IN EAST AZARBAIJAN PROVINCE</b>	
<b>Strengths</b>	<b>Weaknesses</b>
S1- Systemic and strategic attitude at the senior management level of the tourism organization S2- The investment amount of the tourism organization in providing software and hardware S3-Attention and support of senior managers of tourism organizations to use new technologies S4- The status of human resource management information system in tourism organization S5- The status of human resources of the tourism organization in the production and maintenance of software S6-Information systems of the tourism organization	W1- The degree of conformity of the structure of the tourism organization with the authorities and expectations W2 -The situation of the number of workers in the tourism organization, especially in the fields of IC expertise W3- The status of technical and specialized positions in the structure of the tourism organization W4- The quality of communication between the elements of the tourism organization for the development of tourism W5- Status of welfare and motivational activities W6- The degree of adaptation of the structure of the tourism organization to environmental changes W7- The position of the tourism organization in the minds of people and tourists W8 -The status of people's access to tourist reports

<b>Table 2 OPPORTUNITIES AND THREATS OF TOURISM DEVELOPMENT IN EAST AZARBAIJAN PROVINCE</b>	
<b>Opportunity</b>	<b>Threat</b>
O1 - The state of willingness to serve in the tourism organization O2 - access to software and hardware facilities in the tourism organization O3 - The degree of coordination of the tourism organization. O4- Creating facilities, infrastructure, transportation O5 -Willingness of the private sector to invest O6 - Government's willingness to support the tourism industry	T1-the regulatory level of the tourism organization T2-The non-transparency of some rules of the tourism organization T3-desire to leave the supervision of the tourism organization T4-People's attitude towards the tourism organization T5-culture of tourism organization supervision T6-Lack of sufficient information from the court T7- Absence of experienced specialists in the field of computer science in the tourism organization T8-Powers given to the tourism organization

At this stage, the most important strengths and weaknesses, threats that were obtained by questionnaire and interview from experts, supervisors and managers were weighted by experts and managers, which are described in the following tables :

Ref	Strengths	weighted	Ranking	weighted score
S1	Systemic and strategic attitude at the senior management level of the tourism organization	0.09	4	0.36
S2	The investment amount of the tourism organization in providing software and hardware	0.09	4	0.36
S3	Attention and support of senior managers of tourism organizations to use new technologies	0.08	3	0.24
S4	The status of human resource management information system in tourism organization	0.08	3	0.24
S5	The status of human resources of the tourism organization in the production and maintenance of software	0.07	2	0.14
S6	Information systems of the tourism organization	0.06	1	0.06
	Total	47		1.4

Ref	Weaknesses	Weighted	Ranking	Weighted score
W1	The degree of conformity of the structure of the tourism organization with the authorities and expectations	0.09	4	0.36
W2	The situation of the number of workers in the tourism organization, especially in the fields of IC expertise	0.07	2	0.14
W3	The status of technical and specialized positions in the structure of the tourism organization	0.06	1	0.06
W4	The quality of communication between the elements of the tourism organization for the development of tourism	0.07	2	0.14
W5	Status of welfare and motivational activities	0.06	1	0.06
W6	The degree of adaptation of the structure of the tourism organization to environmental changes	0.06	2	0.12
W7	Absence of experienced specialists in the field of computer science in the tourism organization	0.06	1	0.06
W8	The status of people's access to tourist reports	0.06	1	0.06
	Total	0.47		2.4

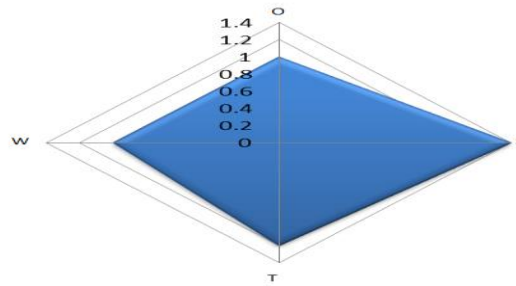
According to Tables 3 and 4, it can be stated that the most important strengths of Azerbaijan province in the field of tourism development in the context of information and communication technology are respectively equal to: systemic and strategic attitude at the senior management level of the tourism organization with a score of (0.36), access to The software and hardware facilities in the tourism organization have a score of (0.36). Also, the most important weakness in the tourism development of this province is the degree of compliance of the structure of the tourism organization with the authorities and expectations with a score of (0.36) which was the most important according to the experts. In the

evaluation matrix, if the exponential score is greater than 2.5 1 and 4) the strengths are more than the weaknesses and vice versa. In this matrix, as can be seen, the final score was less than 2.5; therefore, despite having much strength, East Azerbaijan Province has more weaknesses that should be taken into account. To be fixed for development in the tourism sector. In the following, we will examine the opportunities and threats.

<b>Ref</b>	<b>Opportunities</b>	<b>Weighted</b>	<b>Ranking</b>	<b>Weighted score</b>
O1	The state of willingness to serve in the tourism organization	0.07	2	0.14
O2	access to software and hardware facilities in the tourism organization	0.09	4	0.36
O3	The degree of coordination of the tourism organization	0.08	3	0.24
O4	Creating facilities, infrastructure, transportation	0.07	2	0.14
O5	Willingness of the private sector to invest	0.06	1	0.06
O6	Government's willingness to support the tourism industry	0.06	1	0.06
	<b>Total</b>	<b>0.43</b>		<b>1</b>

<b>Ref</b>	<b>Threats</b>	<b>Weighted</b>	<b>Ranking</b>	<b>Weighted score</b>
T1	The regulatory level of the tourism organization	0.08	3	0.24
T2	The non-transparency of some rules of the tourism organization	0.09	4	0.36
T3	Desire to leave the supervision of the tourism organization	0.08	3	0.24
T4	People's attitude towards the tourism organization	0.06	1	0.06
T5	Culture of tourism organization supervision	0.07	2	0.14
T6	Lack of sufficient information from the court	0.06	1	0.06
T7	Absence of experienced specialists in the field of computer science in the tourism organization	0.07	2	0.14
T8	Powers given to the tourism organization	0.06	1	0.06
	<b>Total</b>	<b>0.57</b>		<b>2.2</b>

According to Tables 5 and 6, it can be stated that the most important opportunities for tourism development in East Azerbaijan province are respectively: access to software and hardware facilities in the tourism organization with a score of (0.36) and the most important threat is: the lack of transparency of some from the rules of the tourism organization with a score of (0.36). In the evaluation matrix of external factors, if the final score is more than 2.5 (average of 1 and 4). Opportunities are more than threats and vice versa. In this matrix, as it can be seen, the final score is less than 2.5, so East Azerbaijan province is facing many threats for development in the field of tourism development in the context of information and communication technology.



**Figure 1**  
**CHART OF THE RANKING OF THE 4 FACTORS RELATIVE TO EACH OTHER IN THE SWOT MATRIX**

By using the weights obtained from the evaluation matrix of internal and external factors, it should be determined which of the strategies (aggressive, conservative, competitive and defensive) the graph is drawn towards. They are displayed in relation to each other and as can be seen, the stretching of the above diagram has been towards strengths and threats, which tends towards a competitive situation, so strategies should be developed for a comprehensive and long-term planning. To use the strong points of tourism in the province and avoid identification threats.

<b>WO</b>	<b>SO</b>
<b>WT</b>	<b>ST</b> IFE=2.20 EFE=2.40

**Figure 2**  
**THE POSITION OF THE STUDIED PROVINCE IN THE MATRIX OF INTERNAL AND EXTERNAL FACTORS**

According to Figure 2, which shows the location of the study area, it can be said that the appropriate strategies for the development of tourism in the province are strategies based on strengths and threats (i.e., competitive strategies). Competitive strategies are the result of contrasting strengths and threats. In these strategies, strengths are used to take advantage as much as possible and avoid threats from the external environment. Therefore, the competitive strategies in this province will lead to the development of tourism. From the comparison of the internal and external factors identified in the SWOT table and the analysis, the most important competitive strategies are as described in the table below.

<b>Table 7</b> <b>COMPETITIVE STRATEGIES OF ST IN THE DEVELOPMENT OF THE TOURISM INDUSTRY OF EAST AZERBAIJAN PROVINCE</b>	
<b>ST.Kind</b>	<b>Strategies</b>
ST1	Cooperation between the private and public sectors in order to invest in the tourism sector
ST2	Developing long-term and strategic plans in the field of tourism development
ST3	Developing transparent laws in the field of supporting tourism development
ST4	Paying attention to making the tourism industry competitive
ST5	Empowering managers and officials in the field of tourism
ST6	Attention to the correct transfer of appropriate technology in the tourism industry
ST7	Attention to the localization of imported technologies
ST8	Mandating the use of computer science experts in the tourism organization

According to table 7, it can be stated that 8 strategies formulated in this section by experts and managers of the tourism organization have been determined according to the strengths and threats of the environment, which will lead to the development of tourism in East Azarbaijan province in the context of information and communication technology. In general, it can be said that for the development of tourism, the participation of the private and public sectors, paying attention to the appropriate laws, efficient manpower, modern and local technology and making this industry competitive will lead to the development of tourism in this province. The results obtained from the research with the results Khoshnit et al.'s research (2015) showed that the transfer of appropriate technology can help the growth of tourism, Safaipour (2014) found that local technology had an impact on the tourism industry, Mansouri (2016) paid attention to the localization of imported technologies, Ahsani (2016) considered the cooperation between the private and public sector to be effective in investing in the tourism sector.

## DISCUSSION AND CONCLUSION

The impact of information and communication technology in various sectors has been unavoidable and this issue is more evident in the tourism industry. One of the important points regarding the relationship between information and communication technology and tourism is their two-way relationship. The needs of the tourism industry for information technology are expanding due to the development of consumer needs and new methods of facilitating operations. On the other hand, the development of information technology provides more tools and capabilities to meet the needs of this industry. This process is like a path in which one part causes the development of other parts and its movement itself gains more momentum forward. The continuous development of information and communication technology during the past two decades has had a profound application for the entire tourism industry. Taking into account the dimensions of tourism, tourism policies in the context of information and communication technology should be based on a model of correlation with the participation of all stakeholders and combining domestic activities. be in the national framework. The government has a central role, especially in the field of tourism planning policies. Tourism strategies, considering the role of ICT, should be in a broader framework of national information and communication technology policies, in the field of access to information and communication technology and the liberalization of telecommunication structures, issues of capacity building and the implementation of legal and regulatory frameworks, along with the issues of gaining trust and payments be integrated online. In general, according to the results of the research, it can be said that in addition to the existence of many potentials in the tourism development of East Azariaijan province, there are also many environmental threats and internal weaknesses that can be reduced by proper management of the strengths and threats. And by increasing the opportunities and reducing the weak points, the tourism situation of the province was placed in other strategic situations such as offensive strategies so that the existing capacities can be used, which required strategic attention to this issue. Because according to the current trend, it seems In Future, the strategic position of tourism tends to be defensive and conservative and causes many opportunities to be lost. It is also suggested that researchers rank the identified strategies in future research and determine the importance of each one so that the officials According to the importance and priority of each one, take appropriate action.

## REFERENCES

Andrades, L., & Dimanche, F. (Eds.). (2015 ). Cultural tourism in Russia. Network for excellence in tourism through organizations and universities in Russia. *Spain: University of Extremadura.*

- Andrades, L., Dimanche, F., Vapnyarskaya, O., & Kharitonova, T. (2015a ). Tourism management (ch. 3).
- Andrades, L., Dimanche, F., & Ward-Perkins, D. (2015b). *Trends and issues (ch. 9)*.
- Hawkins, D. E., & Mann, S. (2007). The World Bank's role in tourism development. *Annals of tourism research, 34*(2), 348-363.
- Dimanche, F., & Andrades, L. (2015). Tourism in Russia: a management handbook. *Emerald Group Publishing*.
- Dodds, R., Dimanche, F., & Sadowski, M. (2018). Planning for growth in islands: the case of Cuba. In *Tourism management in warm-water island destinations: systems and strategies* (pp. 95-107). Wallingford UK: CAB International.
- Nilsson, M. (2004). Research and advice on strategic environmental assessment. *Stockholm Environmental Institute, 23*(1), 91-123.
- Jorgenson, D. W., & Stiroh, K. J. (2015). Information technology and growth. *American Economic Review, 89* (2), 109-115.
- Eugenio-Martin, J. L., Martín Morales, N., & Scarpa, R. (2004). Tourism and economic growth in Latin American countries: A panel data approach.
- Werthner, H., & Forer, P. (1999). Challenging Relationship. *Information Technology and Tourism. New York. Springer Wein*.
- Yamani, M., Yusefi, F., Moradi, A., Abbasi, M., & Barzkar, M. (2017). Preparatory zoning using the ANP and AHP models for tourism development case study: Oshnaviyeh city. *Scientific-Research Quarterly of Geographical Data (SEPEHR), 26*(102), 19-34.

**Received:** 02-Nov-2023, Manuscript No. ASMJ-23-14142; **Editor assigned:** 04-Nov-2023, PreQC No. ASMJ-23-14142(PQ); **Reviewed:** 17- Nov-2023, QC No. ASMJ-23-14142; **Revised:** 22-Nov-2023, Manuscript No. ASMJ-23-14142(R); **Published:** 28-Aug-2024