Analyzing the Role of Information Technology (IT) and Security in Tourism Industry

SEYED FATHOLLAH AMIRI AGHDAIE

Assistant Professor, Dep.of Management,
University of Isfahan, Isfahan, Iran
Email: s.aghdaie@ase.ui.ac.ir
Tel: 98- 313 - 7935- 205

MILAD KATEBI

Master of science in Information Technology E-Commerce
K.N.Toosi University of Technology,Tehran,Iran
Email: mldktb@gmail.com
Tel: 09188147307

Abstract

Tourism is the most popular and greatest industry in the world. This industry is also expected to be the leading industry in the 21st century, and its developing trend to be continued. Tourism is a great economic, social and environmental power and of course, it is quite a political phenomenon. Security and IT are two important and effective elements on tourism industry. Through mutual interactions, security and tourism can have improving effects or even declining effects, i.e. increasing or decreasing security shall promote or decline tourism, and vice versa. Hence, tourism has direct relations with the aspect of security. On the other hand, according to the increasing growth of the number of internet users, and since tourism industry has proper role and importance in different approaches of a country, we should use new technologies in this industry. Electronic instruments and internet have established extraordinary changes in all the chains in distributing tourism services. The aim of this article is analyzing the relation between security and IT on tourism in the city of Shiraz in Iran, and 200 questionnaires were randomly distributed between foreign tourists, who came to Shiraz during summer 2015. The research results showed that there is a positive and significant relation between IT and tourism.

Key Words: Security, Information Technology, Electronic Tourism.

Introduction

Tourism and security have close relations with each other. Tourism industry cannot develop without security. In its extensive concept, security is one of the most important elements that are effective in the demands required by foreign and domestic tourists in any country. Therefore, national security is the most prominent factor in developing tourism in the countries that wants to be in conformity with the relevant specifications of leading countries in tourism (Amiri Aghdaie, 2011). According to the specialists, tourism

is a multilateral science that if it is developed and expanded without precise security and political analyses, it will definitely not be proper and intact.

Development and welfare of people is resulted by promoting the global system under security, by which the ordered and peaceful development of other countries could be assisted, and can have maximum benefits from their capabilities and experiences (Khoshfar, G. et al, 2012), Various factors are effective on tourism development, and security is the most prominent factor in that development. Reviewing the tourism industry and national security structural relations is essential. Along with development of this industry at present, the structural relation of this industry with the components, such as domestic and national security, transport industry, services, community media, education, etc., have entered into a new status.

According to the experts, there is a defined relation between tourism, stability and security development, and simultaneous developing tourism infrastructures, collaboration of appropriate cultural and advertising institutions and extensive participation of security and intelligent services with tourism development will lead to national security development. The role and effect of tourism industry in national security of a country are such that, despite possessing extensive economic resources and income, most of the developed countries prefer to concentrate on tourism industry.

In addition to economic developments and cultural exchanges, direct presence of the visitors and tourists in a country can introduce the country, as a secure tourism area to the people of the world. It is since security, in its extensive concept, is one of the most important and effective aspects in the rate of demands of foreign tourists for travelling to any country. In this respect, the economic criteria are quite important. There are two main reasons for encouraging tourism development in the economic domain, which are the benefits due to creating income as well as employment, provided as the result of tourists' expenditures and their presence in their destined country Kamata,Hiromi .et al (2010).

Iran is among the first ten countries in the world for its tourism attractions, and is among the first five countries in the world for its tourism diversity, and Shiraz is a region with the most tourism attractions in Iran (Forougozar, H. et al (2013). Furthermore, an era entitles "the era of information" began by the changes that occurred from the second half of 20th century (Tafler, 2001).

One of the most important applications of IT & C (information technology and communication) is in tourism industry. Thus, for the importance that foreign tourism industry could have in different social/economic dimensions, we have to equip our facilities and utilize new technologies, conducting e-tourism (electronic tourism), to enter into global competitions. Hence, the relation between security and IT for foreign tourists in the city of Shiraz was considered in the present study.

Literature of the Research

Security

Tourism security is not only protection against thieves and offenders. Traffic deaths, crackup of airplanes, bureaucracy in issuing visas and insurance policies, behavior of police, activities of businesspersons and limitation of working hours are all due to lack of security after the regular hours (Kakavand, 2007). There should be a definite area for minimum personal freedom, not to be offended by others, what so ever. This definite area is the minimum security that human beings establish their own requirements accordingly, for initiative thoughts (Uzama, Austin, 2009). Security is nothing but mutual understanding and public participation of people in a political unit for reaching public welfare. This population should gain a degree of knowledge to realize the situations and realities to play its useful role, in which the government and nation's capabilities increase for maintaining and using the culture and its values. This "national security". Thus, we are not wrong if we say in case tourism can earn income, increasing the income can reduce social immoralities in the community, leading to just distribution of wealth and earnings (Vodoudi, Elaheh 2007).

The elegant and complex industry of tourism has lateral relations in national and regional levels, and any insecure conditions and use of violence in different levels can lead to irreparable damages in this industry. For instance, when an investor in the field of tourism or specialists of an international investing company travel to a region, if according to their evaluations their destined region was not properly safe and secure, they would certainly conclude that tourists are not financially and physically safe in that region. Therefore, they shall not invest in that area (Mirani, S. Z. et al,2015).

Transport sector, hotels, inns, tourism attractions bureaus, travel agencies and tourism organizations should have required coordination with each other for security purposes, in developing tourism. The word "readiness" is of great importance, in tourism. For instance, roads exist for transportation, but the ministry of roads and transportation states that over 30 thousand people are killed in these roads, every day. It means that those roads are not completely prepared or ready. On the other hand, if a tourist finds no proper place for residing, he shall never return to that area (Prayag, G., & Ryan, C. 2011).

Information Technology (IT)

It refers to the technologies that help us in recording, storing, processing, retrieving, transferring and receiving information (Seidaei et al, 2012). In fact, the whole set of hardware, software, network and the relevant industries is called "information technology". One of most important effective technologies in tourism industry includes information tools and communication ports (internet) (Azani, 45, 2007).

The value and importance that modern IT& C has created for developing the world tourism infrastructures is quite interesting. When a tourist can observe tourism information about historical buildings in a country via worldwide web, and obtain proper audiovisual and contextual information, he/she shall be interested and eager about them. Although Iran is among the first ten countries for tourism and historical attractions in the world, but its share in tourism industry is within the first hundred countries (Vodoudi, 30, 2007).

However, enormous rate of information has led to users' confusion. Thus, the need for private online information is properly felt. Mobile communication technology has developed for the users to receive the relevant information and services. Mobile facilities such as PDA, smart phones and internet have provided new ways for communications. In fact, mobile technologies owe their salient growth in emergence of mobile phones. Moreover, inclinations for developing mobile systems used for guiding the users in any types of environments have increased.

Tourism industry is one of the first industries that has used the advantages of mobile technologies for the benefit of its users. Tourism industry is a section, in which the users' needs for personalized and immediate information is sensed. Travelling can be made more enjoyable for the users, by combining different technologies and mobile communication. Using global positioning systems (GPS) devices has facilitated services for the travelers during their journeys.

Despite all the available mobile technologies such as mobile public networks, GPS and smart technologies, there are still various problems in developing mobile tourism systems. The main aim of mobile tourism systems is providing information and services according to the users' needs based on the users' environmental conditions (Beizavi, 1, 2008). By providing effective tools and facilities, both for the customers in identifying and purchasing appropriate products and also for the producers in controlling and distributing their products in the global levels, IT&C has effectively dealt with increasing supports for globalization of the present supply and demand aspects in tourism industry in all over the world.

Four important features can be named as the reasons for extending the use of IT for promoting tourism industry: The first feature is the low rate of average required investment for creating any occupations in the fields related to IT in this industry. This feature is quite considerable with regards to intensive shortage of investment resources in the country in one side, and high rate of demands for employment from the other

side. In fact, developing the employments related to internet can lead to create considerable number of new jobs in this industry without requiring enormous investments. This can be important especially for the countries that confront with shortage of financial resources for investments in tourism sector.

The second feature indicates necessity of developing IT&C in this sector, with regards to the rapid growth of demands in the world for the related services with IT&C, such as advertising, marketing, programming, network security services and producing contents for tourism internet websites. The other important feature that leads to positive effects of IT&C development in tourism industry is the important role of IT&C in reducing costs by a great number of economic enterprises and governmental offices in providing services to the to the tourists; e.g. the average time for reaching the working places by their employees reduces through electronic services. This leads to saving lateral costs for getting to work by the employees. The last effective element in developing IT&C in tourism industry is in absorbing tourists (Bayat, 35, 2008).

WTO argues that "the key to success lies in the quick identification of consumer needs and in reaching potential clients with comprehensive, personalised and up-to-date information".26 The rapid growth of both the volume and the quality requirements of contemporary travellers, require powerful ITs for the administration of the expanding traffic. Tourists become sophisticated and more demanding, requesting high quality products and value for their money. Thus, destinations and principals need new methods to serve the new types of demand.

The usage of ITs in the industry is driven by both the development of the size and complexity of tourism demand, as well as by the rapid expansion and sophistication of new tourism products, which address mini-market segments. Increasingly, new, experienced, sophisticated, demanding travellers seek information about more exotic destinations and authentic experiences, as well as require to interact with suppliers in order to satisfy their specific needs and wishes.

The contemporary/connected consumer "is far less willing to wait or put up with delays, to the point where patience is a disappearing virtue".27 In order to satisfy tourism demand and survive in the long term there is no choice but to incorporate technology and enhance the interactivity with the marketplace.23, 26-27 Increasingly, ITs enable travellers to access reliable and accurate information as well as to undertake reservations in a fraction of time, cost and inconvenience required by conventional methods.

ITs improve the service quality and contribute to higher guest/traveller satisfaction. Customer satisfaction depends highly on the accuracy and comprehensiveness of specific information on destinations' accessibility, facilities, attractions and activities.28-30 This is because the gap between consumers' expectations and perceived experiences is smaller and thus, unpleasant surprises from the destination or principals are minimised.21 In addition, several other ITs facilitated factors enhance consumer satisfaction, namely: consumers have more information and enjoy a greater choice; a reduction of the bureaucracy and paper-work effectively frees time for customer service; customising the product and establishing "one-to-one" marketing by using intelligence collected by loyalty schemes (e.g. dietary requirements, product preferences); providing new services, (e.g. as in-flight or in-room entertainment and information channels); facilitating operational tasks (e.g. in-room TV checkout); personalised services (e.g. telephone operator acknowledges guest by his name); and finally better integration of departments and functions of organisations towards better service.

Computer Reservation Systems (CRSs) and increasingly Internet providers satisfy the needs of consumer for convenient access to transparent and easy to compare information. They cover the 4 entire variety of choices of travel, lodging and leisure services, destinations, holiday packages, as well as display the actual prices and availability of such services. These services also provide immediate confirmation and speedy documentation of reservations, allowing a greater degree of flexibility and enabling prospective travellers to book at the "last minute". Experienced travellers are therefore empowered by information and booking systems and increase their personal efficiency by creating tailor-made products independently.

ITs also assist principals to understand consumer needs through marketing research and loyalty/partnership schemes. Improved access to information covering all aspects of tourist activities provides the framework for offering personalised services at price levels comparable to those of standard packages.31-33 The revolutionary developments in ITs, which have been experienced through the proliferation of the Internet and the World Wide Web since 1995, illustrate that consumers increasingly rely on the Internet for travel information.

They utilise commercial and non-commercial Internet sites for planning, searching, purchasing and amending their travel. Non-tourism organisations tend to seize the emergent opportunity by utilising the ITs tools. This is already the case with major ITs providers, (e.g. Microsoft developed Expedia, an electronic travel agency) to satisfy tourism demand.

Effective and high-speed ICT infrastructure and software applications in the tourism and hospitality industry are crucial for tourism development. ICTs allow customer - management relations and supply chain management to be combined into a single source that facilitates a variety of operations - product selection, ordering, fulfillment, tracking, payment and reporting to be performed with one easy-to use tool. ICTs ultimately cut costs by enabling the provider to be in direct contact with the consumer and also impact employment through the need for required maintenance of ICT equipment. Management within tourism companies use ICTs to undertake a range of tasks that enhance the efficiency of employees in the workplace, notably online reservations.

The development of ICTs has also led to changes in demand and supply. A higher demand for flexible, individualized options and quality of information has personalized leisure and tourism behavior, a consequence of increased ICT use. Through new technology and social and economic ratings (e.g., social media platforms like Facebook, Twitter, blogs) customers have the ability to share information and research ratings on destination, quality of service in hotels and restaurants and environmental and social conditions. Number of hotels (e.g., Marriot

Hotels and Resorts, Ritz Carlton Hotels, Hyatt Hotels and Resorts) have strengthened their brand image and communicate directly with their customers by posting links to a press release or promoting new package through Twitter.

ICTs provide unique opportunities for innovative organizations to redesign tourism products to address individual needs and to satisfy consumer wants. ICTs have also become part of the core product, especially for business travelers who now expect certain facilities to be available during their trip. The internet and the World Wide Web have revolutionized the promotion and communication functions of tourism. ICTs can reduce commission costs. Expedia, eBookers, to emerge and gain a significant market share, propelling a reintermediation in the distribution channel. E-Airlines In 1962, American Airlines introduced its SABRE Computerized Reservations Systems (CRS) to in the place of manual reservations on display boards where passengers were listed and travel agencies had to locate the best routes and fares for their customers in a manual and then telephone for availability, reservation and confirmation before issuing a ticket manually.

The lodging industry is the most under-automated segment of the international travel industry. Property Management Systems (PMSs) were introduced to facilitate the front office, sales, planning and operation functions. This was achieved by administering a database with all reservations, rates, occupancy and cancellations, thus managing the hotel inventory. Hospitality organizations increasingly use computerized systems to improve their inventory management, communicate with their interaction with consumers and reduce some of their operational costs. Journal of Applied Economics and Business 71 E-Hospitality ICTs have penetrated hospitality management at a fast pace, integrating the hotel operations, reshaping the marketing function, improving total efficiency, providing tools for marketing research and partnership building, and enhancing customer services, while also providing strategic opportunities.

In addition, consumers increasingly expect ICT facilities in their rooms; internet access via the television set and data ports have become standard for higher hotel categories. The Internet has improved the hotel representation and reservation processes dramatically. Bookings through the web is particularly convenient for customers who frequent the hotel as that provides an efficient and effective communication mechanism. The greater the capacity, number of departments, transactions, arrivals, departures and reservations, the greater the need for technologies to facilitate the processes. Further integration between PMSs and Hotel CRSs can improve efficiency, facilitate control, reduce personnel and minimize the response time to both customers and management requests.

E-Tour Operators Tour operators need constantly to interact with all their partners, including accommodation and transportation principals, ICTs are also critical for the distribution of tour operators' packages. The introduction of the Internet, Intranets and Extranets as strategic tools has as strategic tool has a number of benefits for tour operators. The co-ordination and exchange of timely information is important because it allows tour operators to co-ordinate activities, to resolve potential problems and to ensure that customer requirements are communicated to all principals delivering the tourism product. Strategically, ICTs play a critical role for tour operators.

For example, Kuoni allows consumers to alter their tourism package online and to build their own itinerary by making it possible to extend the trip, change accommodation, meal plans and add value – added services such as car rentals, scuba-driving lessons. However, it is quite evident that tour operators will need to shift their focus from the information provision and the reservation mechanism to a strategic role of adding value to the product and the process. Tour operators will therefore need to re-assess their core values and identify specific market segments that they can satisfy in the future.

Benefits of ICT for tourism

Unabated advances and innovation of ICT affect every tourism organization and stakeholder. This impact has been observed since the early 1960s, when first computer aided service booking system SABRE was installed by American Airlines. Since then many new ICT solutions have been emerged. As Buhalis suggests 'three main waves of technological developments established ITs in tourism enterprises, namely Computer Reservations Systems (CRSs) in the 1970s, Global Distribution Systems.

Nowadays we should add the World Wide Web and its (r)evolution from Web1 to Web41 and wireless communication development. The benefits resulting from ICT application in the travel and tourism sector have been proven by an extensive number of studies. Only during the period 2005 to 2007 accounted total number of 215 IT-related articles were published in 57 major tourism and hospitality journals. In last two decades many of the articles in this field were written by Buhalis in the cooperation with other authors. The most of researches predominantly focused on the impact of information and communication technology in travel distribution and the using the Internet in searching for information and purchasing tourist services process.

The key factor influencing tourism industry referring to ICTs is easy and direct access to information. Buhalis and Zoge (2007: 481–492) in their study conclude that rivalry has increased dramatically; bargaining power of both buyers (consumers) and suppliers (principals) has been strengthened due to their ability to communicate directly at the expense of the position of intermediaries. The advent of the Internet has diminished many of these asymmetries between larger and smaller actors through the simultaneous explosion of global customer reach as well as access to and sharing of rich information.

The literature review let to identify many benefits of the use of ICT for tourism enterprises. The most important are:

In the tourism sector, it is widely acknowledged that ICT have opened new pathways for relationships between the members of the distribution channels, and new management solutions that enhance these relationships the intensity of information exchange among companies operating in the same distribution channel has led to greater efficiency, as increased information exchange highlights shared interests and common goals, which in turn facilitate collaboration.

Offering easy access, in real time, to data and information let 'to quick identification of consumer needs and in reaching potential clients with comprehensive, personalised and up-to-date information' (WTO, 1998) and forge new ways to satisfy consumer needs, as it allows for an "informatization" of the entire tourism value chain.

Resulting in numerous value-generating strategies, such: value extraction, value capture, value addition and value creation, possible owing to the Dynamic Packaging Tool, which extends customization ICT creates opportunities to design new tourist services and products meeting individual needs,

Enabling value co-creation (defined by as the 'joint creation of value by the company and customer'), ICT makes tourists more knowledgeable, demanding, empowered and active role in planning, designing and specifying of services and products, tourism companies can use consumer knowledge to create their offers on the one hand and shouldn't forget about tourists as a crucial part of tourist value chain on the other hand. providing the large range of information in short time ICTs contribute the higher tourist satisfaction and improve the tourist service performance and quality.

ICTs help tourist companies to gain competitive advantage owing to: an access to reliable and accurate information or to large size and global market, the larger market share, the building closer relationships with suppliers and customers, the maintaining price leadership in the market or/and the differentiating and improving their products.

Enabling promotion and distribution tourist products direct to the consumers, reducing dependency on intermediaries (disintermediation) and sales commission paid for intermediaries and direct and nearly free of charge access to information, ICTs diminish transaction costs (seeking information, distribution, promotion cost) and make higher revenues are possible.

Iproving social inclusion for the tourists mobility (e.g. knowledge sharing about interesting places worth visiting, easy access, evaluation of accommodation facilities etc.).

Allowing for sales analysis aimed at monitoring the increasingly frequent changes in demand, speeding up management procedures and supporting efficient functioning of tourism enterprises, – allowing for taking better advantage of the resources at the disposal of a tourist enterprise.

Electronic Tourism (E-tourism)

E-tourism is directly receiving e-tourism services by IT, organizational design and finally receiving online main information (Khanchouch, 1, 2004). E-tourism is an exclusive set together with commercial management, IT&C and tourism (Kanellopoulos et al., 2004).

E-tourism includes providing required services for domestic and foreign tourists, via using IT and electronic facilities in doing tourism activities, from programming to execution). E-tourism is the common point between traditional tourism, professional affairs such as management, marketing, finance, and IT. E-tourism, as the connecting point between traditional tourism and IT, is shown in fig. 1.
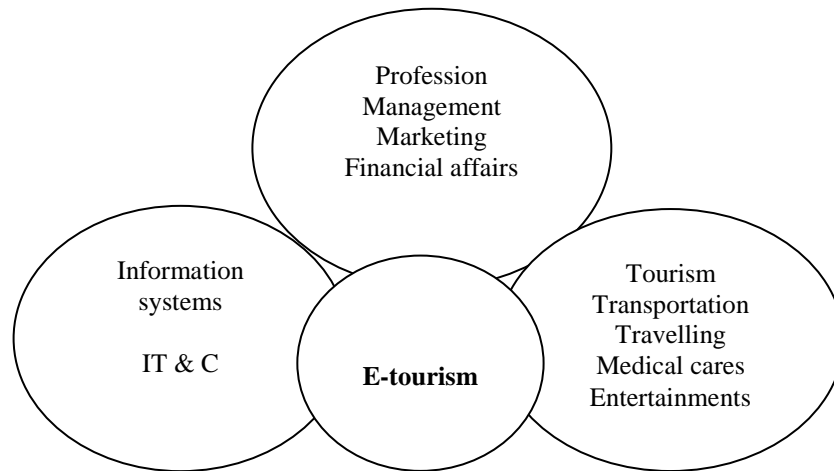
Fig.1: E-tourism system (Qalandar, 2008)

This type of tourism provides the possibility for people to enter into their considered place in virtual form and by internet tools, before physically starting their journey, finding the advantages and disadvantages of their trip via TV programs, articles, published reports, books, films, virtual tours, etc., in order to easily decide about their journey. It is even possible that this search reduces or eliminates the need for travelling. E-tourism is indeed an economic action, supplied today by many active companies in this field. It uses the individuals such as reporters, photographers, geographers, authors, etc. to provide better services for people through the virtual world (Bohalis, D. 2007).
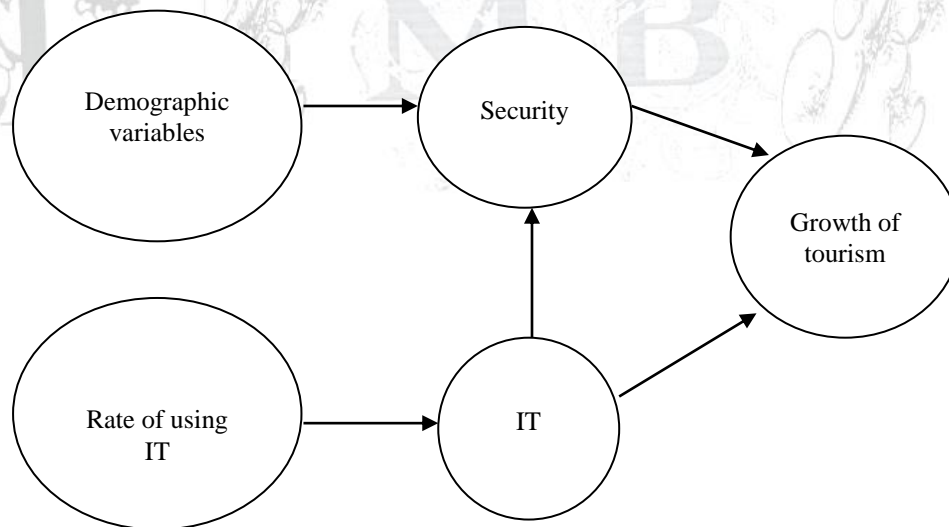
Fig.2: Research conceptual model

Virtual tourism is a tool, by which a person interested in tourism can identify the capabilities of tourism of a country the shortest time, with minimum facilities and lowest costs, and by little knowledge, to travel with an aimed and conducting program by the governments and agencies to a specific place. Developing this type of tourism is having a determined importance for the countries that their main emphasis is on visiting ancient heritages and other phenomena with special forms, volumes and sizes.

Tourism virtual environment provides a new method with 3-dimensional potentials that simultaneous with the user's will and direct relation with him/her is more effective than other methods and with a rather lower costs. With many applications such as simulation of entertaining places, buildings, estates, shops, factories, education, etc., virtual environment has the potentials to be connected to the real environments and recording the events in that area simultaneous with the virtual environment.

It has the capabilities in providing addresses and locations before the trip, and it has even used in advertising and culturing phenomena. Virtual environment is now transformed into a powerful tool for advertising (Ebadzadeh Mosadegh, 2007).

Research Hypotheses

- There is significant relation between different dimensions of security and tourism growth in the city of Shiraz.

- There is significant relation between growth of IT and tourism growth in the city of Shiraz.

- There is significant relation between demographic variables and understanding security

- There is significant relation between demographic variables and different dimensions of using IT.

- There is significant relation between the rate of using IT and the understanding of Shiraz city tourists.

History of Research

In the study by Jafar Hezarjaribi (2010), it was determined that variables such as trusting the Iranians by tourists, feeling secure and sense of cooperation by Iranians are among the important human aspects, establishing international participations and collaborations in the domains including tourism.

Samadian (2009) analyzed the effect of tourism social criteria on security, in his study, in which he stated about tourism social potential consequences and importance, and the social effects of tourism industry. At the end of his research, he concluded that the viewpoints and considerations of visitors as well as feeling of having security are among the important factors in development of tourism industry.

In an article "Entrepreneur and effective factors in sustainable tourism", Maya Lord, Berzet and Michael Bachman (2004) found that IT is one of the main and considerable factors in economic developments, which can lead to growth and development of services for changes and renovations. Tourism is one of the economic sections that largely require IT.

In the article "An analysis on social and cultural security and its role on sustainable development of tourism", Barak Potter and Jeremy Miller (2006) considered tourism as an entrepreneur industry. Their findings indicated the rate in feeling secure in tourists' residential places and the conditions in going to tourism areas and routes.

Research Methodology

The present study is an applied research, and conducts a descriptive method and field studies in collecting the required data.

Tools of collecting the data

A questionnaire was used to collect the required information. This questionnaire was organized by Likert spectrum in seven scales, from 1 (Completely disagreed) to 7 (completely agreed), and includes some questions in this regard.

Statistical population and samples

The statistical population in this study included all the foreign tourists who came to the city of Shiraz of Iran in summer 2015, 200 people were randomly selected according to infinite community formula. The questionnaire was distributed among these people.

Statistical techniques

Correlation coefficient test was applied in this research for testing the hypotheses.

Data Analysis

Results of the descriptive records.

Table 1: Results of descriptive records

Variable	Options	Frequency	Percentage (%)	Variable	Options	Frequency	Percentage (%)
Sex	Male	106	53%	Employment	State employee	125	62.5%
	Female	94	47%		Business person	40	20%
Age	20-25	20	10%		Retired	9	4.5%
	25-35	34	17%		Other	23	11.5%
	35-45	23	11.5%	Education	High school	58	29%

	45-55	37	18.5%		Bachelor studies	102	51%
	55-95	86	43%		Complementary studies	70	35%
Marital status	Single	78	39%	No. of previous journeys to Iran	None	133	66.5%
	Married	122	61%		1-4	53	26.5%
					4-7	7	3.5%
					7-10	7	3.5%

Testing the research hypotheses

Hypothesis No. 1: There is significant relation between different dimensions of security and tourism growth in the city of Shiraz.

Table 2: Statistical calculation of correlation test between security criteria and growth of tourism

Variable	Growth of tourism			
	Kendal		Spearman	
	P-value	Correlation coefficient	P-value	Correlation coefficient
Security dimensions	0.000	0.625	0.000	0.807

Since Kendal and Spearman correlation coefficients are calculated 0.625 and 0.807, respectively, and p-values for both tests are less than the significant level (0.05), hypothesis zero is rejected. Thus, a linear significant relation can be found between the two different criteria of security and tourism growth. Since the obtained correlation coefficients are positive, the existing relation is a direct relation.

Hypothesis No. 2: There is significant relation between growth of IT and tourism growth in the city of Shiraz.

Table 3: Statistical calculation of correlation test between growth of IT and tourism growth

Variable	Growth of tourism			
	Kendal		Spearman	
	P-value	Correlation coefficient	P-value	Correlation coefficient
Growth of technology	0.000	0.287	0.000	0.442

Since Kendal and Spearman correlation coefficients are calculated 0.287 and 0.442, respectively, and p-values for both tests are less than the significant level (0.05), hypothesis zero is rejected. Thus, a linear significant relation can be found between the two different variables of the growth of IT and growth of tourism in the city of Shiraz. Since the obtained correlation coefficients are positive, the existing relation is a direct relation.

Hypothesis No. 3: There is significant relation between demographic variables and understanding the concept of security.

Table 4: Statistical calculation of correlation test between demographic variables and understanding the concept of security

Variable	Understanding the concept of security			
	Kendal		Spearman	
	P-value	Correlation coefficient	P-value	Correlation coefficient
Growth of technology	0.000	0.459	0.000	0.662

Since Kendal and Spearman correlation coefficients are calculated 0.459 and 0.662, respectively, and p-values for both tests are less than the significant level (0.05), hypothesis zero is rejected. Thus, a linear significant relation can be found between the two different variables of demography and understanding the concept of security. Since the obtained correlation coefficients are positive, the existing relation is a direct relation.

Hypothesis No. 4: There is significant relation between demographic variables and different dimensions of using IT.

Table 5: Statistical calculation of correlation test between variables of demography and different dimensions in using IT

Variable	Understanding the concept of security			
	Kendal		Spearman	
	P-value	Correlation coefficient	P-value	Correlation coefficient
Growth of technology	0.000	0.655	0.000	0.729

Since Kendal and Spearman correlation coefficients are calculated 0.655 and 0.729, respectively, and p-values for both tests are less than the significant level (0.05), hypothesis zero is rejected. Thus, a linear significant relation can be found between the two different variables of demography and different dimensions of using IT. Since the obtained correlation coefficients are positive, the existing relation is a direct relation.

Hypothesis No. 5: There is significant relation between the rate of using IT and the understanding of Shiraz city tourists.

Table 6: Statistical calculation of correlation test between the variables of using IT and understanding the concept of security by the tourists of the city of Shiraz

Variable	Understanding the concept of security			
	Kendal		Spearman	
	P-value	Correlation coefficient	P-value	Correlation coefficient
Growth of technology	0.000	0.169	0.000	0.229

Since Kendal and Spearman correlation coefficients are calculated 0.169 and 0.229, respectively, and p-values for both tests are less than the significant level (0.05), hypothesis zero is rejected. Thus, a linear significant relation can be found between the two different variables of using IT and understanding the concept of security by the tourists in Shiraz. Since the obtained correlation coefficients are positive, the existing relation is a direct relation.

Conclusion

E-tourism is the lost loop of tourism industry in Iran. Long steps can be taken for developing this industry by developing and revising the policies and various activities in that regard, to be benefited from its numerous advantages. Information technology continuously provides new tools for tourism marketing and management.

It supports the interaction between travel agencies and their customers, reorganizing the whole process of developing, management and marketing the products and destinations of tourism. IT is rapidly growing in this era, and its users are increasing every day. Regarding the numerous technological and workforce, Iran should also follow this new wave of development. Thus, it is necessary to appreciate the opportunities obtained from the evolution of technology, and benefited from it with regards to local considerations. If tourism is not developed and administered with proper programs, it could cause social/cultural problems.

Sometimes, large number of tourists may cause the discomfort of residents, leading to resentment and hatred of them against tourism. Large number of tourists in a region, especially in high seasons, turns to throngs in attractive and welfare centers, restaurants, shops and transportation, and the residents cannot easily use them. In case the residents are obstructed from accessing welfare facilities, such as hotels or beach areas, they may even get angrier and more irritated. The government and also private sector should be sensitive for maintaining tourists' health and security.

The important step in improving tourism industry in Iran is providing and maintaining comprehensive security, both in foreign and also in domestic and national dimensions. To verify this aim, it is necessary to inform the people and all the tourists of the countries of the world about the proper security in the country, in addition to promoting the security by using international media, for the incorrect imagination of insecure conditions in the country not to hinder tourism industry growth and development. Moreover, the harmful aspects in tourism should be eliminated, and the problems regarding health, terrorists attacks, diseases like malaria or AIDS should be considered, and the other countries should be informed about them. The conditions and regulations for facilitating travelling, especially the immigration and customs offices should be efficient and user friendly, while applying the regulations.

Suggestions

-Holding special courses for security officers with regards to confronting with people, in such a way to avoid offensive actions and radicalism with the offenders, in tourism places.

-Provide the establishment for security forces, especially by Cultural Heritage and Tourism Organization in tourism places, with suitable uniforms, for the security purposes and assurance of the tourists.

-Training effective workforce, familiar with international languages for guiding the tourists

- Providing acceptable security in tourism areas.

- Providing continuous interactions between tours and police forces for establishing security

- Equipping hotels and tours with modern facilities, related to IT.

- Training different forces related to tourists, about IT.

References

Amiri Aghdaie, Seyed Fathollah, RaminMomeni (2011)." Investigating Effective Factors on Development of Tourism Industry in Iran".Asian Social Science, 7(12), 98- 109.

Azani Mehri et al. (2007), Role of tourism industry on Iran's macro-economic changes, Geography, Tourism and Sustainable Development Articles, Islamshahr Islamic University publications, 45.

Bayat, Bahram (2008), Describing sociology of sensing security among Tehrani citizens, PhD thesis, Literature and human sciences, Isfahan University, 35.

Beizavi, Javad (2008), Abstractive model based on smart factors for mobile tourists, 5th international conference of IT&C management, 1.

Bohalis, D. (2007), E-tourism: IT for strategic management of tourism, translated by a group of MA students of tourism management, Allameh Tabatabaei University, Tehran, Pendar Pars.

Ebadzadeh Mosadegh, S. (2007), Importance of virtual tourism and its role in increasing tourism attraction.

Forougozar, H., Hamidi, V. R., Farhadi, P., & Haghshenas, M. (2013). Identifying and prioritizing the factors effective in customer satisfaction using the TOPSIS method. Journal of Health Management and Informatics, 1(1), 19-23.

Hezarjaribi, Jafar & Reza Safari Shali. (2010), An investigation of effective factors on civilian's social trust among Iranian people, Jamashanasi karbordi Magazine (applied socialogy) vol 36, No.4, Isfahan.

Kakavand, Roya (2007), Security; the most reliable tourism attraction, Arya Website.

Kamata,Hiromi.,Misui,Yuki.,Yamauchi,Hirotaka.,(2010),"How to attract more Tourists", Tourism Review,vol.65 no.2 pp,28-40.

Kanellopoulos, D., Panagopoulos, A. & Psillakis, Z. (2004) "Multimedia applications in tourism: the Case of Travel Plans", Tourism Today, Vol. 4 (4):146-156.

Khanchouch, A. (2004) E-tourism: an innovative approach for the small and medium sized tourism enterprises (SMTE) in Tunisia, Institut Supérieur de Gestion de Tunis,BESTMOD Laboratory.

Khoshfar, G, Mohammadi, Razieh; Mohammadi, Arezoo (2012), Analyzing the role of social security on tourism development: Case study, South Khorasan resorts, South Khorasan police knowledge seasonal magazine, 5th year, summer 2013, 2.

Mirani, S. Z., & Farahani, B. M. (2015).Second homes tourism and sustainable rural development in all around the world. International Journal of Leisure and Tourism Marketing, 4(3-4), 176-188.

Prayag, G., & Ryan, C. (2011). Antecedents of tourists' loyalty to Mauritius: The role and influence of destination image, Place attachment, Personal Involvement, and satisfaction. Journal of Travel Research, 51(3), pp. 342-356.

Seidani, S.E; Hedayati Moghadam, Zahra (2012), Evaluating the role of ICT rural offices in providing rural services in Isfahan province, Case study: Sin, Mehregan, Madiseh and Kaboutarabad villages in Isfahan province, Geography and environmental planning magazine, 23rd year, Sequence 45, No.1.

Tafler, Alvin (2001), Third wave, translated by S. Kharazmi, Simorgh publications, 7th edition, Tehran.

Uzama, Austin. (2009),"Marketing Japan's Travel and Tourism industry to International Tourists", International Journal of Contemporary Hospitality Management, vol.21 no.3 pp.356-365.

Vodoudi, Elaheh (2007), Role of IT in tourism industry in Iran, Geography, Tourism and Sustainable Development Articles, Islamshahr Islamic University publications, 30.