

## A Model of E-Tourism Satisfaction Factors for Foreign Tourists

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**Abstract:** Information and Communications Technology (ICT) has an inevitable impact on different industries and their performances. The tourism industry as the largest and fastest growing industry in the world cannot be excluded from this technology and its huge impacts. ICT provides information about tourist attractions in the different destinations before travelling and may improve tourists' satisfaction. According to World Tourism Organization (WTO) statistics, Iran is among the top five countries in having tourism potentials. However, Iran has not performed well in promoting its attractions to international tourists via ICT tools yet. This research explores the impact of ICT on foreign tourists' satisfaction of the tourism industry and uses Shiraz city as a case study. The aim is to explore the factors of tourist satisfaction in e-tourism and to look at the most important problems that tourists face while they plan their trip by using the e-tourism facilities. This research proposes a model for the impact of ICT on foreign tourists' satisfaction in e-tourism. This research is based on both primary and secondary data; library data as the source of secondary data and survey data as the source of primary data. This research uses the quantitative approach methodology which includes a survey where questionnaires were given to foreign tourists. Informal interviews via telephone and e-mail with tourism industry stakeholders, such as travel agencies and hotel managers were carried out to identify the most important factors in tourists' satisfaction. The result of this research shows that the use of taglines such as, "Using credit card to buy", "easy transfer money", "online payment" and "update information" are the most important factors for an E-Tourism system. However, the result of the survey shows that these most important factors have not been implemented well in the e-tourism system. Thus, it is concluded that there are essential needs for planning strategies in the field of e-tourism, particularly in e-ticketing, e-reservation, online payment, multilingual and updated information websites. Finally, this research recommends that the tourism authorities to develop the e-tourism infrastructures in order to keep up with the competitiveness of this field to enable the country to benefit from the global benefits of the tourism industry.

**Key words:** Information and Communications Technology (ICT), tourism, tourists' satisfaction, e-tourism.

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### INTRODUCTION

The large number of travel and tourism websites being created in developed and developing countries shows the importance of ICT in the tourism industry and it also indicates the evolution of e-tourism in the world. Tourism has closely been connected to the progress of ICT for over 30 years (Buhais and Jun, 2011). According to statistics, Malaysia is a country which has billions of dollars of turnover in its tourism industry. The success of Malaysian tourism industry is not due to its PETRONAS Twin Towers and natural attractions alone, but it is due to the development of e-commerce and also the increasing use of ICT in developing e-tourism. This has resulted in the development of a complete and precise system of information for responding to travelers' needs before traveling to Malaysia in terms of the purchase of tickets and the procurement of visas, hotel reservations, transportation and weather conditions. Apart from that, this system has helped travelers to be in a close contact with Malaysian tourist attractions and facilities, which resulted in the travelers' satisfaction being a crucial factor in the tourism industry (Virtual Malaysia, 2008).

Based on the Electronic Union of Travel and Tourism Industry Report published in 2008, the first e-tourism union in the Middle East and all over the world was established by the Arabs and Europeans. Developed countries have done a wide range of studies on the importance of ICT in different industries such as the tourism industry. Customers' behavior in e-tourism, for example, has been the focus of these studies. This particular study emphasizes on customers' evaluation of on-line tourism websites as an important factor in selecting their buying channel. It also assesses what the effective factors of a tourism website are, which causes the selection of the website as a buying channel (Steinbauer and Werthner, 2007).

ICT plays an important role as a new method in increasing the demand in tourism industry, which in turn, results in attracting more tourists and generating more income, apart from further developing the tourism industry. According to World Tourism Organization (WTO) statistics, Iran is among the top five (5) countries in having historical and natural resources for tourism purposes. Unfortunately, Iran has not performed well in introducing its attractions to tourists via ICT tools yet. A quick look at the world's tourism statistics and

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economy shows that each year, more than 600 million foreign tourists visit different parts of the world. Iran, however, with its reputation receives merely 2 million foreign tourists. Among 181 world countries and with regard to its economic growth, Iran ranked at 135 and its tourist income ranked at 70 (Javaherzadeh, 2010). In general, there is little information about Iran and its tourist attractions, travel guides, ticketing, hotel reservation and the method of paying online on the Internet.

Iran is still far from e-tourism. Iran's tourism organizations have not paid much attention to potentials and capabilities of the Internet and their websites. They have not taken advantage of the ICT which can help the tourism organizations to increase customers' satisfaction and thus bringing their loyalty to these organizations (Saddad, 2010). The significance of this research is high since the aim of this research is to evaluate the role of ICT on foreign tourists' satisfaction in Shiraz International Tourists. Furthermore, there have been few studies on this subject in Iran.

### ***Background of Study:***

Tourism has closely been connected to the progress of ICTs for over 30 years. The establishment of the Computer Reservation Systems (CRSs) in the 1970s, Global Distribution Systems (GDSs) in the late 1980s and the Internet in the late 1990s have transformed operational and strategic practices dramatically in tourism (Buhalis and Law, 2008). As Romain *et al.*, (2010) stated, the link between customer and supplier has been shortened, removing intermediaries. Hence, customers have the opportunity to directly access to the offers featured in the tourism industry. Since the 1980s, Information Communication Technologies (ICT) has enabled worldwide tourism industry (Buhalis, 2003). Nowadays, the Internet and ICTs are relevant on all operative, structural, strategic and marketing levels to facilitate global interactions among suppliers, intermediaries and consumers around the world (Egger and Buhalis, 2008). At present, it plays an important role in the tourism industry. The effectiveness of different sections of this service industry is being enhanced and improved quickly by ICT. According to the statistics published by World Tourism Organization (WTO), in the near future, countries without ICT infrastructures would not be able to keep up with the pace of tourism growth of other countries which have significant roles in ICT infrastructure.

Travel and tourism industry has created more than 198 million jobs all around the world and has made 10% of gross national products (GNP) of many countries in 2002. With reference to World Travel and Tourism Council statistics (WTTC, 2005), travel and tourism which is a fast growing industry and is considered as the biggest industry in the world, would create 249 million jobs and share 10.6% of GNP in different countries all over the World (Paajarvi, 2004).

### ***Customer Satisfaction:***

One of the most profoundly investigated topics in the hospitality and tourism studies and research is customer satisfaction. Customer satisfaction has a prominent role in the survival and future growth of any tourism products, achievements and its related services (Gursoy *et al.*, 2003, 2007). The intentions made by consumers' repurchase, the tourists' motivating factors, their satisfaction and loyalty are some significant aspects of tourism industry. ICT is expected to improve the quality of services and enhancing the level of clients' satisfaction as well.

According to Williams (1993), the exact and fresh information related to clients' requirements is a successful factor in tourism industry. ICT is said to increase the degree of clients' satisfaction by offering much more information in comparison with classical media. It combines multimedia forms of applications as proper images and videos of related products resulting in decreasing the existing gap between expectations made by clients and tangible observable experiences from the world around.

Consumers' satisfaction results in long-term mutual relationships and it also helps us to know about their purchase intentions (Lee *et al.*, 2008). It is stated that while e-commerce is mainly related to the utilization of a new technological asset, it is very crucial to be receptive towards online environment which would form a positive relationship with satisfaction (Kim *et al.*, 2005). Bai *et al.* (2008) believe that in online environments, there should be a significant effort to fulfill customers' satisfaction because it increases their intentions for actual purchase of tourism products online.

Cyr (2008) has done a research on satisfaction in the hotel industry. He investigated three sections of website design: information, navigation and visual design; while evaluating relationships between trust and satisfaction with loyalty within the context of different cultures.

According to Szymanski and Hise (2000), the most important factors which illustrate e-tourism satisfaction have been summarized as convenience, site design, financial security and product information. On the other hand, Yang *et al.* (2003) identify a total of 14 dimensions and 42 sub-dimensions of internal service quality although as they report, only five are the principal drivers of customer satisfaction. They are responsiveness, credibility, ease of use, reliability and convenience.

**Case Study: Shiraz:**

Iran as a tourism pole having plenty of cultural, natural and historical attractions due to its ancient and rich civilization has great potential to gain from the tourism industry (Beyk Mohammadi, 2000). To get to know e-tourism in Iran, the effectiveness and implication of intranet, extranet and internet in companies involved in Iranian tourism section would be investigated in full. Previous studies show that the level of knowledge about electronic tools and their use in different sections of the tourism industry varies. Fars province is a tourism destination pole in Iran due to its rich historical, cultural and religious attractions and it is also considered as a World Heritage treasure (Beyk Mohammadi, 2007). Shiraz as the capital of this province possesses an incredible position in national tourism boundary while hosting several million domestic and international tourists per year. This city is segmented into two main districts. Eighty-six communities are located in Old Shiraz, whereas ninety-two communities are located in New Shiraz. In the Old Shiraz, we could find many historical artifacts such as monuments, gates and old buildings. New and modern buildings, such as shopping complexes and hotels are located in New Shiraz (Aref *et al.*, 2009). Shiraz which is also considered as the heritage capital of Iran (Kamali, 2009), has not applied e-tourism in an effective way which may have variable reasons.

**Methodology:**

This study is based on library and survey data and the use of statistical data from the Cultural Heritage, Tourism and Handicrafts of Shiraz. Interviews were carried out with tourism section's staff and other related sections like banking and insurance. Questionnaires were prepared and the results were converted into descriptive and analytical charts and tables. This paper focuses on the analysis of the questionnaire.

This study proposes the following research questions: 1) What are the most important factors which result in tourists' satisfaction in e-tourism? 2) What are the most implemented factors for foreign tourists while planning their trip to Shiraz through e-tourism? 3) What are the most important problems and obstacles of foreign tourists while planning their trip to Shiraz through e-tourism?

There are three stages in e-tourism, which is before travelling, during travelling and after travelling. The focus of this research is on the first stage of e-tourism, that is before travelling. Based on the literature (Szymanski and Hise (2000), Bansal (2004), Cyr *et al.* (2008), Virtual Malaysia (2008), Lee *et al.* (2008) and Williams (1993)), this study emphasizes on the importance of convenience, site design, facilities, service quality and E-security.

Based on the literature review, the questionnaire is based on the five categories, shown in Table 1, where it illustrates the codes and variables related to all of the categories in this research.

**RESULTS AND DISCUSSIONS**

There are three different situations for the variables according to their mean values from the questionnaires. The variables which have mean values more than 4.5 suggest that tourists have been in agreement with these variables. The variables that have mean values of less than 3.5 indicate that tourists have been in disagreement with these variables. However, the variables with mean values between 3.5 to 4.5 indicate the neutral, they neither agree nor disagree with the variables. Table 2 illustrates the implemented factors of e-tourism system in Shiraz from the highest to the lowest value.

According to Table 2, tourists have been in agreement with 5 variables of service quality and e-security categories. This shows that e-tourism systems in Iran have applied essential elements in these two categories, so they have succeeded in their implementation. Tourists have agreed with 4 variables of the convenience category, 3 variables of facilities category and 2 variables of site design category. Therefore, it can be concluded that service quality category and e-security categories are the best implemented elements of e-tourism in Iran.

Table 3 illustrates the low-quality factors of e-tourism system in Shiraz from the highest to the lowest value. Based on Table 3, tourists have not agreed with 5 variables of facilities and 4 variables of convenience categories which show e-tourism systems have not achieved success in their implementation. Tourists have not agreed with 2 variables of service quality and site design and 1 variable of e-security; therefore it is concluded that facilities category and convenience categories are the worst implemented elements. In this table it can be seen that tourists have emphasized that online payment for buying tickets and paying their hotel rooms are not possible within the e-tourism systems.

Based on the questions in the questionnaire, the respondents were asked to pick the three variables which were mostly significant in the e-tourism system. Table 4 depicts the 10 most important variables selected by respondents from the highest to the lowest.

**Table 1:** Categories of E-tourism satisfaction

Categories	Codes	Variables
Convenience	C1	Obtain feedback
	C2	Willing to work with e-tourism system
	C3	Less steps required to get something to work
	C4	Unknown behavior
	C5	Amount of appropriate and clear services in e-tourism
	C6	Easy to use
	C7	Enough services
	C8	Time and cost saving
Site Design	S1	Enough services in the e-tourism sites
	S2	Easy to use
	S3	Clear interface in use
	S4	Readable, logically arranged and good pleasing screen
	S5	Easily to find the information
Facilities	F1	Collecting, viewing and downloading comprehensive destination
	F2	Accessible personalized travel package
	F3	Buying the ticket for destination in electronic forms
	F4	Getting the visa for destination in electronic forms
	F5	Reserved room in electronic forms
	F6	Using credit card to buy and easy transfer money
	F7	Online payment
	F8	Empathy to provide customer
Service Quality	SQ1	Contact us
	SQ2	Fulfilling required expectations
	SQ3	Immigration information
	SQ4	General information about Iran
	SQ5	Exchange information
	SQ6	Transportation details
	SQ7	Multi language
E-Security	E1	Safe feeling in transactions
	E2	Reducing of occurring mistakes
	E3	Ready, reliable and update information
	E4	Personal information security
	E5	Financial security
	E6	No absent or misleading information

**Table 2:** Best implemented elements of e-tourism system in Shiraz.

Codes	Variables	Mean
SQ6	Transportation details	5.09
SQ5	Exchange information	5.02
C2	Willing to work with e-tourism system	5
C4	Unknown behavior	4.94
S3	Clear interface in use	4.68
F2	Accessible personalized travel package	4.65
S2	Working with Site design is easy to use	4.64
F4	Getting the visa for destination in electronic forms	4.60
E1	Safe feeling in transactions	4.60
E4	Personal information security	4.59
SQ3	Immigration information	4.57
S5	Easily to find the information	4.54
SQ4	General information about Iran	4.52
C6	Easy to use	4.51
E2	Reducing of occurring mistakes	4.51
E6	No absent or misleading information	4.31
E5	Financial security	4.28
SQ1	Contact us	4.26
C3	many steps required to get something to work	4.05
F1	Collecting, viewing and downloading comprehensive destination	3.62

Table 4 shows the 10 factors with the highest value. This gives an indication of the most important factors which result in tourists' satisfaction in e-tourism system. Although these are the 10 most important factors in e-tourism system based on the view of tourists, some of them have not been implemented successfully in our case of Shiraz city due to some limitations in Iran; for example, factors regarding online reservation and payment using credits cards (variables 1, 2, 6) are not included in e-tourism systems because of the international sanctions against the country and lack of collaboration with international banks.

**Table 3:** The low-quality implemented elements of e-tourism system in Shiraz.

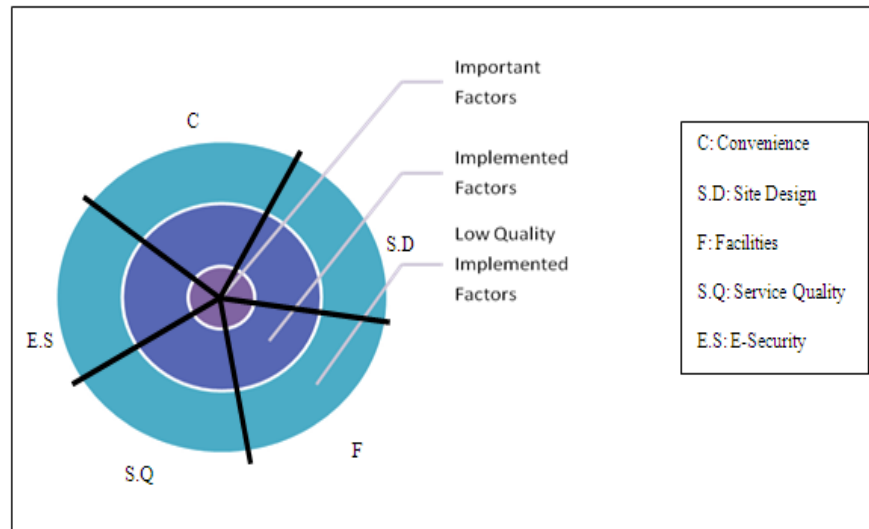
C8	Time and cost saving	4.40
F8	Empathy to provide customer	4.15
E3	Ready, reliable and update information	3.94
SQ2	Fulfilling required expectations	3.73
SQ7	Multi language	3.59
S4	Readable, logically arranged and good pleasing screen	3.53
F3	Buying the ticket for destination in electronic forms	3.39
C7	Enough services	3.24
C5	Amount of appropriate and clear services in e-tourism	3.12
C1	Obtain feedback	3.02
F6	Using credit card to buy and easy transfer money	2.78
F7	Online payment	2.69
S1	Enough services in the e-tourism sites	2.64
F5	Reserved room in electronic forms	2.57

**Table 4:** Most important factors of E-Tourism

No	Variables
1	Using credit card to buy and easy transfer money
2	Reserved room in electronic forms
3	Ready, reliable and update information
4	General information about Iran
5	Accessible personalized travel package
6	Online payment
7	Financial security
8	Multi language
9	Transportation details
10	Enough services in the e-tourism sites

**Proposed Model OF E-Tourism Satisfaction:**

Figure 1 shows the proposed model of foreign tourists' satisfaction in e-tourism (before travelling stage). This model displays the most important, implemented and low quality implemented factors in e-tourism for the five features such as: convenience, facilities, site design, service quality and e-security.



**Fig. 1:** Proposed Model of E-Tourism Satisfaction.

Table 5 shows that out of 33 choices regarding foreign tourism satisfaction in Iran, 20 are implemented. However, out of 10 important choices taken from the analyzed data for foreign tourism satisfaction in e-tourism, just 4 are implemented in Shiraz. The rest 6 choices are either implemented with low quality or not implemented at all. Unfortunately, Shiraz couldn't get the satisfaction of foreign tourists which has been the most important factor for increasing the number of arriving tourists and so increasing the foreign currency into the country and its economic growth. All these show that Iran and the city of Shiraz are still far away from the e-tourism.

**Table 5:** Important, Implemented and low-Quality Implemented Factors Of Proposed Model.

Categories	Important Factors	Implemented Factors	Low Quality Implemented Factors
Convenience	Time and cost saving	Willing to work with e-tourism system	Time and cost saving
		Unknown behavior	Enough services
		Easy to use	Obtain feedback
		Less steps required to get something to work	Amount of appropriate and clear services in e-tourism
Facilities	Using credit card to buy and easy transfer money	Getting the visa for destination in electronic forms	Buying the ticket for destination in electronic forms
	Online payment	Collecting, viewing and downloading comprehensive destination	Online payment
	Accessible personalized travel package	Accessible personalized travel package	Using credit card to buy and easy transfer money
		Working with Site design is easy to use	Reserved room in electronic forms
	Easily to find the information		
Service-Quality	General information about Iran	General information about Iran	Fulfilling required expectations
	Multi language	Exchange information	Multi language
	Transportation details	Transportation details	
		Immigration information	
		Contact us	
Site Design	Enough services in the e-tourism sites	Clear interface in use	Enough services in the e-tourism sites
			Readable, logically arranged and good pleasing screen
E-Security	Ready, reliable and update information	Safe feeling in transactions	Ready, reliable and update information
	Financial security	Financial Security	
		Reducing of occurring mistakes	
		No absent or misleading information	
		Personal information security	

**Conclusion:**

In conclusion, there are many common factors that can be considered as the proper basis in investigating e-tourism barriers and limitations for places similar to the case study. Through a study of the whole amount of these factors, we can categorize them in same main groups. For example, the environmental barriers can be recognized as lack of government support, lack of required underlying structures, the small size of bazaar, lack of a coherent, cohesive program regarding information technology and limitation in supporting rules and regulations.

While the technological barriers can be considered as the low degree of bandwidth, incompatibility of systems with users, the limited knowledge about ICT and lack of enough attention on developing electronic tools. Moreover, some of these factors can be related to management, staffs, tourism organizations, financial and cultural issues and social factors. The other factors are the emphasis on the role of human-management factors, underlying structures and required situation for conducting information technology in different sectors and industries such as tourism.

It should be high lightened that there is an essential need for planning strategies in field of e-tourism, particularly in fields such as e-ticketing, e-reservation, online payment, multilingual and updated information websites. Moreover, more e-services should be provided for tourists who want to travel to the attraction city on the websites while focusing on important factors like time and cost saving and obtaining feedback. Finally, city similar as Shiraz needs to develop the e-tourism infrastructures in order to keep up with the competitiveness in the future.

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