

**Case Report**

**Study of effectiveness of e-marketing effectiveness given impact of Internet and communications and information technology on attracting tourists (Case Study: Tehran Province)**

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**ABSTRACT:**

A unique feature of the industrial revolution that brought the world to the information age was information and communication technology that emerged with the advent of the Internet. This phenomenon enabled a new type of communication and interaction and a new age has in marketing. Therefore, this research aimed to study e-marketing effectiveness with regard to the role of the Internet and information and communication technology in attracting tourists to Tehran by which to study the impact and efficiency of e-marketing capabilities on the attraction of more tourists in terms of the role of the Internet and information and communication technology in upgrading the performance of customer relationship and organizational performance. For this purpose, hypotheses were developed and based on them, statistical analysis was performed. The research was applied in terms of objectives, and based on how the data is collected, it was descriptive/analytical. Given it was a case study of agencies in Tehran province and given there are large number of agencies in Tehran, agencies of a district were randomly selected as the statistical population and using simple randomized sampling method, and based on Cochran formula, 281 cases were selected as sample. For test of hypotheses and model indices, a questionnaire consisting of 20 questions on five-point Likert scale was used. To assess content validity and to assess the reliability, Cronbach's alpha coefficient was calculated and finally the data were analyzed using statistical software spss.

**Keywords:** effectiveness, ICT, Internet, e-marketing, tourism

**STATEMENT OF THE PROBLEM:**

IT approach and the use of advanced communication technologies as well as competitive factors continually change the world markets. These developments play a role in economic recovery. Orientation of technology and Internet represents the company's ability to identify and comply with emerging technology. Electronic marketing is to exchange business

information to inform, remind and persuade customers without the use of paper in which innovations such as electronic data interchange, electronic mail, and electronic bulletin boards and other network and internet-based technologies are used.

The Internet is also another cause of progress of e-marketing; one is relatively low cost in

comparison with other practices and other is reduced costs of marketing (Genvuti, 2005). With the progress of the technology of the Internet, because the Internet enables companies to communicate better with clients and customize products, more companies use it to market and distribute goods. Customer relation focus on satisfying and maintaining customer and e-commerce results in stronger quality relation with customer to end in faster and more efficient response to them (Chaffy, 2005: 5). Use of new technology like marketing, distribution, pricing and even creating tourism services and products as a tool for competitiveness and small companies emerging destination is known to everybody. The use of electronic tools in the field of international marketing leads to equality school (equal terms of online marketing) (Sanayei, Ansari, 2011).

One of the primary requirements of management organizations is to measure and evaluate the effectiveness of marketing. The effectiveness becomes a value when satisfying the needs and demands of visitors and encouraging visitors to make travel decision to Iran are considered. E-marketing can be wide and non-limited access to information to provide 24/7 access to goods and possibility of purchase to people. In general, the use of online marketing turns local market to the broad global market. Since the study also aimed to predict the changes of dependent variable of "tourist attraction" according to the changes of the independent variable of "e-marketing" including market orientation, direction of technology, customer relationships and organizational performance and the relationship between performance and marketing effectiveness in the competitive tourism market, previously conducted research in this area are as follows:

#### **Domestic Literature**

Babamoradi (2009) investigated the factors influencing quality of electronic services provided on tourist websites of Iran. The purpose of this research is to identify the quality of electronic tourism services in Iran and designing a scientific instrument with good validity and reliability.

Hassanzadeh (2007) examines the impact of information and communication technologies on the tourism industry and dynamic interaction of the technology, with tourism. The study was conducted in Tehran and shows that IT is a facilitator of electronic services to tourists.

#### **Foreign literature**

A paper titled Basic frameworks of e-tourism in Thailand (2002) considered the use of information technology in this industry as a major opportunity for economic growth and development of human resources. Applied framework of e-tourism in Thailand includes four major elements: creating and outlining commercial perspective, formulating strategies, the implementation of the strategies and evaluation and control of goals of e-tourism in Thailand.

However, the problems in the telecommunications sector and networking infrastructure, the lack of attention to the promotion of electric devices, management factors, and factors related to staffing and difficulties related to users of are the major challenges facing Thailand in this way.

Another study was conducted by the British Tourist Center (2002) on the modernization of the tourism business its and objectives of the concepts in the UK and its obstacles. Lack of skills and specialties, telecommunication limitations and low band width, need for training of personnel managers and users, financial resource allocation problem, the lack of a mechanism for the implementation of IT projects, the lack of comprehensive national IT program are among challenges.

#### **Research Methodology:**

The research in terms of collected data was a descriptive-analytic research.

In terms of objective it is an applied one and used spss software for data analysis and Cochran formula for determining sample size, which was 281. Descriptive statistics such as frequency tables, bar charts and rankings were used to describe the demographic variables. The statistical inferences was used about the population, the variance-based structural

equation modeling technique was used by EXCelland SPSS software.

**Research questions:**

- How important is e-readiness in deployment of electronic marketing in tourism industry?
- How important are Internet and information technology in e- marketing to attract tourists?
- Does organizational, service, and system readiness have an impact implementation of e-marketing for attracting tourists?
- Does electronic marketing affect the performance of customer relationship in attracting tourists?
- How important are e-marketing capabilities and organizational performance in attracting tourists?

**Hypotheses:**

- Orientation of the Internet and ICT have a positive relationship with e-marketing capabilities in the tourism boom.
- There is a direct relationship between the factors (lack of knowledge, lack of infrastructure, lack of operational challenges and opportunities) involved in obstacles to e-marketing for tourism boom.
- Organizational, infrastructure and service readiness are effective in e- marketing of tourism.
- E-marketing capabilities are positively correlated with performance of customer relationship.
- E-marketing capabilities have positive relationship with organizational performance.

**Theoretical concepts:**

**ICT:**

By providing the tools and facilities that are effective for both customers in order to identify and buy appropriate products and manufacturers to develop, control and distribute products at the global level to effectively increase and support the globalization of the current supply and demand levels in the tourism industry around the world. Distribution channel of tourism is shown in the figure below. The customer may receive different products directly from the manufacturer while the distributors and brokers work to promote tourist services. Future passenger may choose between tourist distribution channels for a trip (Buhalis, 2005).

**Reasons for using information and communication technologies in tourism industry:**

From the perspective of Pender (2001), these include:

- 1) Access to accurate information to control the situation and the needs assessment and customer satisfaction.
- 2) Enhancing the image and reputation of the company in the eyes of the target customer.
- 3) Combination of products and services in the form of a package.
- 4) Demand control by Storage systems and creating balance in the market and prevent loss of service supply.
- 5) Control of costs by reducing distribution costs
- 6) Contributing to the competition by providing information to the customer and meeting their needs in order to stay competitive.

**The impact of information and communication technologies on tourism:**

The use of information technology facilities and Internet and e-commerce in particular in the tourism chain at the time of the decision to travel up to the post-travel time show the impact of this technology on the entire cycle of tourism services and production cycle that is divided into the following sections:

- Electronic airlines
- E-accommodation
- Electronic tour operators
- Electronic Travel Agencies
- Electronic Travel Destinations

**Electronic Marketing:**

E-marketing or online marketing is the online marketing activities through interactive computer systems. Internet marketing is the process of creating and maintaining mutually beneficial relationships with customers through online activities in order to facilitate the exchange of ideas, goods and services so as to achieve the goals of both sides. This definition includes the following sections: processing, establishing and maintaining mutually beneficial relationships with customers, using the Internet to conduct marketing activities, exchanging, achieving the goals of the parties. Electronic marketing is more than just doing traditional marketing through Internet technology. This

method establishes a two-way relationship between you and your customers. (Brinam, 2003).

According to Cs7, e-marketing is based on the seven Cs:

1. Contract: Value provided to the customer.
2. Content: Web Design and its content.
3. Construction: Supply of products and services timely, promptly and in a reliable fashion.
4. Community: Linking customers and companies and customers themselves.
5. Concentration: Selection of target markets through the provision of consumer behavior in electronic markets.
6. Convergence: Creating convergence between the customer and the organization using comprehensive interaction technology.
7. Commerce: Exchange process between the client and the organization

In traditional marketing, the company's focus is on sales, whereas in e-marketing focus is on customer (Yadollahi, 2008).

#### **E-marketing services and infrastructure in tourism:**

Design and development of electronic marketing for tourism in any country requires infrastructure which is divided to two parts: tourism and IT.

1. Website
2. e-visa
3. Reservation of residential centers
4. Reservation tourist centers
5. Reservation of vehicles
6. Electronic payments

One of the best areas of notification of tourism potential of a country is use of websites. These Official sites on the web can be said of a country are digital speakers or anything of the base-date is more powerful and has more audience. The design information bases, several issues must be considered:

These website that offer fantastic value of information that provide to extensive Internet users are a good opportunity to introduce the tourist facilities of a country. In the meantime, the public information websites about tourism are especially important. In fact, it can be said that websites are digital spokespersons of a country on the web and the stronger and be more

up to date they are, the more their audience is. The design of information websites, several issues must be considered:

**Multilingualism:** Given non-native language of tourists, spoken languages in the world should be considered.

**Multimedia:** information website must use from all the web fine points like photo film text etc. to inform people and use of just a website with dozens of pages of text cannot respond to clients.

**Strong update:** The information contained on the website should be updated from time to time so that users could become familiar with changes in laws and regulations.

**Ease of Finding Website** shall be able to provide requested user information easily and not cause confusion. For example it should be equipped with facilities such as sort and search to be able to provide categorized information.

#### **Problems and limitations of the Internet-based and electronic marketing:**

There are obstacles including (Brennan et al, 2003: 152-153)

1. Users congestion
2. Unidentified people
3. Price
4. Large amounts of information.
5. Speed of growth of the Internet and its related technologies
6. Fear of disclosure of information on the Internet (security and confidentiality)
7. Lack of internet access
8. Lack of physical contact or restriction of the use of the five senses (hidden from view of buyer)
9. Failure to deliver products that have been purchased over the Internet.
10. The reliability of the information (transparency of pricing, leading to price wars)
11. The low speed internet
12. Due to the disappearance of regional and geographic boundaries, there will be global competition and in such environment firms will be faced by competitors of any size and with any facilities

#### **Advantages:**

Since e-commerce is simply defined as buying and selling goods and services through

electronic systems such as the Internet or other computer networks, and benefits of presence of tourism centers should be examined from different aspects:

- Possibility of use of an up to date network
- Advantage of discounts and promotional rates
- Enhanced security and increased individual hygiene in handling electronic money
- Reduced traffic and urban problems
- Use the internet at any hour of the day

**Security aspect of e-marketing:**

One of the key issues for buyers and sellers of online services is security. Many consumers who do not trust the security of personal information on these websites are skeptical about shopping online. There are companies on its website who avoid providing personal data strictly, making it one hundred percent guarantee to protect such data. Sometimes, users are enable to clear their information from databank of company after completion of purchase. However, most online purchasers are ignorant of the fact that their personal information may be provided to other companies. In such a case, there will be no way to stop the transfer of such information (Hanafizadeh, Rezai, 2007: 203)

**Effects of e-marketing on tourism boom:**

Without doubt, the most important accelerating factor has been the use of information technology in the tourism distribution system. This makes access to timely information about facilities at tourist sites in all stages of

distribution and at any time possible. When the supply is intangible, perishable and depreciable, this becomes especially important. In addition, it has enabled thousands of supplier worldwide to connect to computer registration system. Information technology has changed personnel skills in tourism business sector. In the past, operational staff needed such key as travel route plans and programs, approved schedules, tariff reform and providing and procuring tickets. Today the computer is doing these things, employees can affect the quality of services provided to their customers and sales and consulting related to travel (Yari, 2008).

**ANALYTICAL RESULTS:**

**First hypothesis:**

The relationship between orientation of Internet and information and communication technology with potentials of e-marketing of tourism boom. To examine the relationship between orientation of Internet and information and communication technology with potentials of e-marketing of tourism boom, a number of indicators were developed based on targets and formulated hypothesis. Indices were reflected in a questionnaire and administered to 281 students. Data obtained from questionnaires distributed were analyzed by spss software. Initially the mean of indices were discussed and finally also for the final analysis (test of hypothesis), Spearman correlation coefficient was used for the relationship between the two variables.



جدول

Better choice of internet marketing based on time, cost and other services

Up-to-date nature of information and ease of access to website's information and security

Use of credit card in website to buy tourism products

Use of online websites of tourism for buying tourism products

In the first hypothesis, of the proposed indices, indicators of more proper choice of internet marketing based on time, cost and other services, with mean of 4.27, and use of online service of tourist websites in buying tourist products with mean of 4.04 had the highest and lowest scores, respectively.

**Test of first hypothesis:**

In the first hypothesis, in all indicators significance level obtained was 0.0, which is less than 0.5, which represents a significant and positive relationship between the orientation of the Internet and information technology and e-marketing capabilities in the tourism boom. So, in Tehran, due to tourist attractions, Internet can have an important role for tourist attract at lowest cost and highest profit.

Second hypothesis

Relation between factors of lack of knowledge and infrastructure, existence of challenges and failure in use of opportunities are obstacles of e-marketing in tourism boom



Encouraging and ensuring loyalty of customer to tourism institutes through meeting customer need through e-marketing via reduced cost and time

The development of the tourism service enterprises through e-marketing culture

Easy use of shopping information from the content of the website for tourism products in all segments of society,

Reliability of tourist online websites

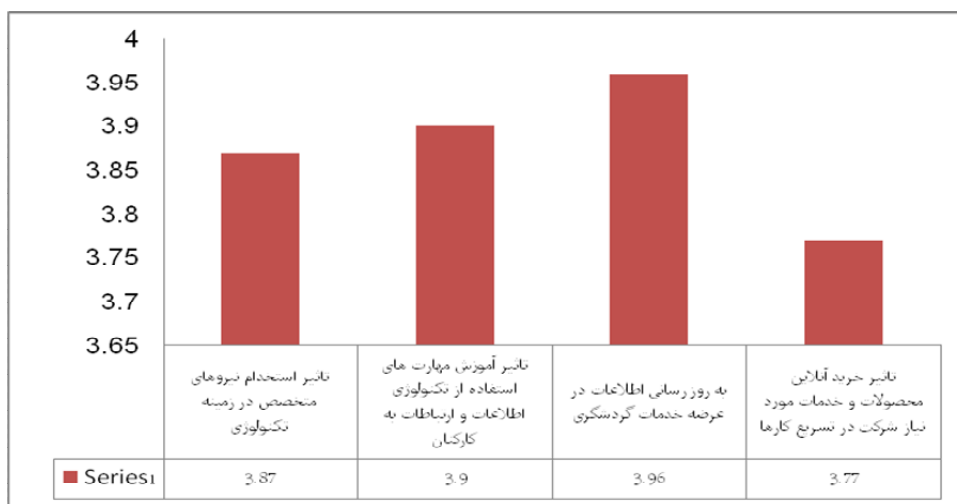
As seen in the chart above, the development of the tourism service enterprises through e-marketing culture with mean of 3.92, and reliability of tourist online websites at 3.80 had the highest and lowest ranks, respectively.

**Test of second hypothesis**

There is direct relation between factors of lack of knowledge and infrastructure, existence of challenges and failure in use of opportunities are obstacles of e-marketing in tourism boom. To test 2<sup>nd</sup> hypothesis, like first one, given test of relation of factors of lack of knowledge and infrastructure, existence of challenges and failure in use of opportunities are obstacles of e-marketing in tourism boom, Spearman correlation test was used. Significance level of all indicators obtained was 0.0, which is less than 0.5, which represents a significant and positive relationship between the factors (lack of understanding, lack of infrastructure, lack of existence of the challenges and exploiting the opportunities) in obstacles of the e-marketing in the tourism boom. So it can be said that lack of knowledge and infrastructure, existence of challenges and failure in use of opportunities can create challenges and obstacles for e-marketing in tourism boom.

**Third hypothesis**

Effect of organizational, infrastructural, service and system readiness on e-marketing of tourism:



The impact of online shopping in the promotion of products and services required in speeding up the affairs.

The impact of training of how to use ICT to personnel

Updating the information on the supply of tourist services

The impact of the recruitment of specialists in the field of technology

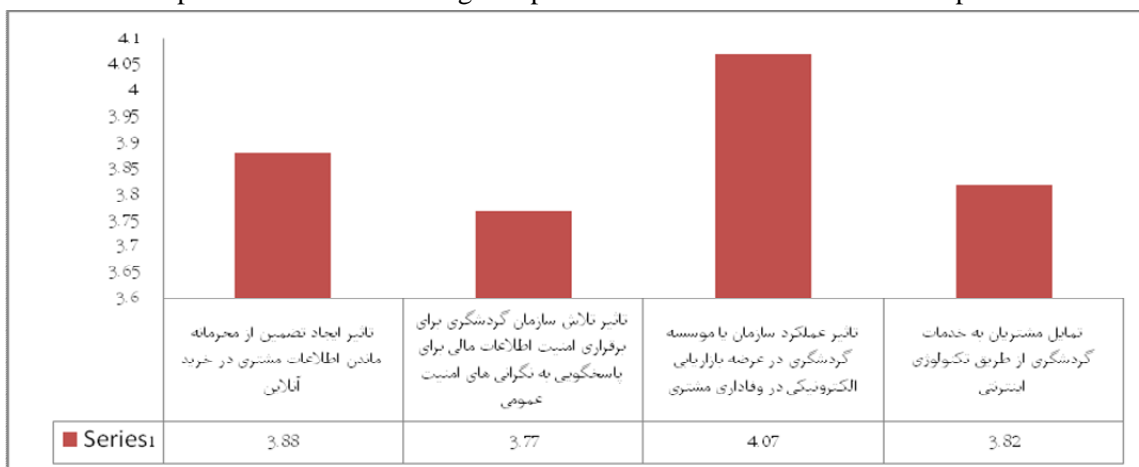
As seen from above figure, of studied indices, upgrading information in tourism services with mean of 3.96 and impact of online shopping of product and services required for company in expediting works with mean of 3.77 had highest and lowest ranks.

### Test of 3<sup>rd</sup> hypothesis

Organizational, infrastructural, service and system readiness has an impact on e-marketing of tourism. To test 3<sup>rd</sup> hypothesis, like first and second ones, correlation coefficient was used given effect of organizational, infrastructural, service and system readiness on e-marketing of tourism wastested. Given ordinal ranking of data, Spearman correlation was used. Of all indices had significance level of 0.0, which is less than 0.5, which represents a significant and positive relationship between organizational, infrastructural, service and system readiness in e-marketing of tourism. In fact, it can be said that the organizational, infrastructural, service and system readiness, which includes readiness of specialized forces, aligning IT strategies and organizational objectives, legal and financial readiness and value added services and information security and e-service systems and integration of systems can have a positive and significant impact on e-marketing of tourism.

### Fourth hypothesis

Relation between potentials of e-marketing and performance of customer relationship



Effect of the performance of organization of the supply of e-marketing in tourism on customer loyalty  
Impact of the establishment of guarantees of confidentiality of customer information in online shopping

Tendency of customers to use tourism services through Internet technology

The impact of the organization's efforts to secure financial information to address concerns about general security

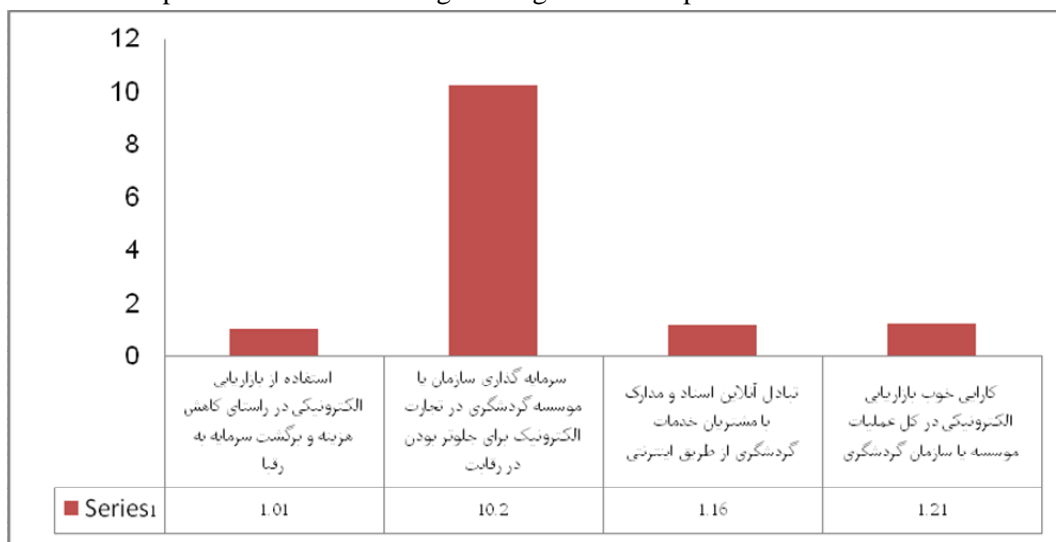
As seen in the figure above, of the studied indices, indices of effect of the performance of organization of the supply of e-marketing in tourism on customer loyalty at 4.07 and the impact of the organization's efforts to secure financial information to address concerns about general security at 3.72 had the highest and lowest scores, respectively.

**Test of fourth hypothesis**

There is a positive relation between potentials of e-marketing and performance of customer relationship. To test 4<sup>th</sup> hypothesis, like first and second and third ones, correlation coefficient was used given effect of organizational, infrastructural, service and system readiness on e-marketing of tourism wastested. Given ordinal ranking of data, Spearman correlation was used. In 4<sup>th</sup> hypothesis, significance level of all indicators was 0.0, which is less than 0.5, which represents a significant and positive relationship between the e-marketing capabilities and the performance of the customer relationship. In fact, capabilities of e-marketing enables company to establish better relation with customer and tailor its products according to their requirements thus ensuring customer satisfaction and building trust in customer.

**Fifth hypothesis**

Relation between capabilities of e-marketing and organizational performance



Good e-marketing performance in the whole operation of the institution or organization of tourism. Online exchange of business documents with customer receiving tourism service through the Internet. Tourism institute investment in e-commerce to win competition

Use of e-marketing in reducing costs and return of investment of competitors

As seen in above table and diagram, among all indices studied, indices of a good e-marketing performance in the whole operation of the institution or organization of tourism with mean of 1.21, and use of e-marketing in reducing costs and return of investment of competitors with mean of 1.01 had the highest and lowest scores, respectively.

**Test of fifth hypothesis**

There is a positive relation between capabilities of e-marketing and organizational performance. To test 4<sup>th</sup> hypothesis, like first and second and third ones, correlation coefficient was used given effect of organizational, infrastructural, service and system readiness on e-marketing of tourism wastested. Given ordinal ranking of data, Spearman correlation was used. In all indices had significance level higher than 0.05, which is indicative of the lack of a positive relationship between potentials of e-marketing and organizational performance. Data analysis results showed that no relation existed between these two variables.



## CONCLUSION

For countries with tourist attractions, the Internet plays an important role in tourism because with the lower cost for them, it will have the highest profitability. E-mail marketing can be used to gain access to the vast and unlimited information in a way that users with an Internet connection can easily find full information about item at any time of day and night. E-marketing is a separate function that is not limited to selling products and services, but include a management process to manage in internal and external markets the relationships between organizations and customers. The lack of attention to this area may deprive us from the world tourism advantages. The important thing for the tourist attractions is that the Internet could have an important role to play in attracting tourism as it has a low cost and the highest profitability. In fact, the main customers of the advanced countries widely use the Internet to trade and travel. The lack of appropriate infrastructure for utilizing this potential advantage results in the failure in utilizing tourism potential and thus being deprived of the benefits of this industry in the global economy. This study examined the effectiveness of e-marketing with regard to the role of the Internet and information and communication technology in attracting tourists (a case study of Tehran province); 5 hypotheses were developed. In line with the hypotheses, indicators tailored to theoretical goals and bases were developed and reflected in the questionnaire. The questionnaire was administered to 281 persons. Data obtained from the questionnaires were analyzed using the software spss. The mean of individual indicators was addressed in five hypotheses. In the first hypothesis, of the proposed indices, the following indicators had the highest ranks respectively: more proper choice of internet marketing based on time, cost and other services, with mean of 4.27, up-to-date nature and easy access to information and secure of website with mean of 4.11, using a credit card to purchase products on the website at mean of 4.8, use of online service of tourist websites in buying tourist products with mean of 4.04. In the second hypothesis, the development of the

tourism service enterprises through e-marketing culture with mean of 3.92, encouraging and ensuring loyalty of customer to tourism institutes through meeting customer need through e-marketing via reduced cost and time with mean of 3.87, easy use of shopping information from the content of the website for tourism products in all segments of society, with mean of 3.84, reliability of tourist online websites at 3.80 had the highest ranks, respectively. In the third hypothesis, indicators of updating the information on the supply of tourist services at 3.96, the impact of training of how to use ICT to personnel at 3.90, the impact of the recruitment of specialists in the field of technology at 3.87, the impact of online shopping in the promotion of products and services required in speeding up the affairs at 3.77 had the highest and lowest scores. In the fourth hypothesis, indices of effect of the performance of organization of the supply of e-marketing in tourism on customer loyalty at 4.07, the impact of the establishment of guarantees of confidentiality of customer information in online shopping at 3.88, tendency of customers to use tourism services through Internet technology with mean of 3.82, the impact of the organization's efforts to secure financial information to address concerns about general security at 3.72 had the highest scores, respectively. In the fifth hypothesis, indices of a good e-marketing performance in the whole operation of the institution or organization of tourism with mean of 1.21, online exchange of business documents with customer receiving tourism service through the Internet with mean of 1.16, use of e-marketing in reducing costs and return of investment of competitors with mean of 1.01 had the highest scores, respectively. And finally, for final analysis, Spearman correlation coefficient was used for all hypotheses. Results indicated that in the first hypothesis, in all indicators significance level obtained was 0.0, which is less than 0.5, which represents a significant and positive relationship between the orientation of the Internet and information technology and e-marketing capabilities in the tourism boom. In the second hypothesis, significance level of all indicators

obtained was 0.0, which is less than 0.5, which represents a significant and positive relationship between the factors (lack of understanding, lack of infrastructure, lack of existence of the challenges and exploiting the opportunities) in obstacles of the e-marketing in the tourism boom. In the third hypothesis, all indices had significance level of 0.0, which is less than 0.5, which represents a significant and positive relationship between organizational, infrastructural, service and system readiness in e-marketing of tourism. In fact, it can be said that the organizational, infrastructural, service and system readiness have an impact on e-marketing of tourism. In 4<sup>th</sup> hypothesis, significance level of all indicators was 0.0, which is less than 0.5, which represents a significant and positive relationship between the e-marketing capabilities and the performance of the customer relationship. And finally in the fifth hypothesis, significance level of indicators was higher than 0.05, which is indicative of the lack of a positive relationship between potentials of e-marketing and organizational performance. Data analysis results showed that no relation existed between these two variables.

#### **Suggestions**

- By creating a tourism website, the costs of tourism services can be paid with the help of various credit cards by tourists.
  - All items related to place of tourist should be placed in different languages on the website to ensure possibility of attracting foreign tourists and offering them services.
  - Contribution to the economic development of less developed regions, with the help of marketing and advertising in order to attract tourists, sell handicrafts and deploy resources in those areas.
  - Create security for adolescents, young people and girls, without the presence of parents with the help of e-tourism, travel can be done with the help of electronic instruments and scientific views and various conferences, as well as video conferencing and no need to travel to those areas. Removing the risk of the road.
  - Creation of informational Websites for fast notification to tourists.
- Official tourist sites and in domestic and foreign advertising media.
  - Advertising all services provided in the field of electronic tourism.
  - Extending the application of ICT in all sectors related to tourism.
  - By extending online marketing, competition among hotels and resorts in improving the services and amenities provided and tourism can be improved.
  - Web Design and Comprehensive Virtual Portal of Tourism in such a way that virtual tourists are not confused.
  - To update Website and a comprehensive virtual tourism portals in order to raise awareness of virtual tourists of the fundamental changes in the terms and conditions of e-commerce in such a way that access to information is improved.

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