"The Impact of Web-Marketing Mix (4s) on Development of Tourism Industry in Iran"

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Abstract

Tourism and internet are two central and correlated elements in current world.Information Technology has created a vast change in tourism industry's strategies, structure and operations. Anyway this issue has not applied completely in development countries like Iran. The necessary tools for applying electronic marketing on tourism industry are some factors that can be applicable in integrated 4s electronic marketing model framework.In present article, the importance of tourism industry and its' development are studied as dependent variables and then different elements of integrated 4s electronic marketing model are discussed as independent variable. In fact, the effect level of these elements on tourism industry is studied in Iran. Moreover, Friedman test is applied to rank the effect of these factors. These assessments are conducted through applying a questionnaire which was designed to gather manager's views about tourism technical offices and academic centers and organizations. The statistical methods for data analysis were 1-correlation coefficients which was utilized to test the level of correlation between each independent variable and dependent one and 2-multivariate regression used for detecting the type of relationship between independent variables and dependent one. Findings show that all elements of model are effective on tourism industry development.

Key words: Development, Tourism industry, Electronic marketing, 4s model

Introduction

Tourism industry is considered as the largest and most industry in the world. Most countries recognize this dynamic industry as the main factor for improving substructures. According to Fay-Sola (2000), Tourism is an impressive agent in the world especially in developing counties where using other forms of economy as production and natural derivation are not economic. Nowadays, a new type of tourism is appearing which replaces traditional tourism, and includes inventions and more specialties, which is based on tests and experiences. ICT is converted to an important sector in harmonizing internal sectors, e-marketing and online sale for offering services by tourism goals. DMO[1] also starts to design and apply a tourism portal to create a direct connection between tourism and its' related services that are done as an agent through travel agencies (E-Business W@th, 2006).

A major part of changes and its' inventions about tourism are related to the ways that marketing strategies are applied to offer modern services by integrating marketing and its' elements as product, place, price, promotion. Tourism industry is often active on applying modern technologies and marketing strategies. The current improvements in internet and virtual world of competitive structures make some changes in tourism industry, so that even small commercial companies can trade according to international basis. Internet sale also can decrease costs of distributing services, by which profitable potentials of companies who offer services are increased (Reid & Bojanic, 2009). Tourism as an international industry is the worlds' largest job providers which includes heterogeneous managers than other industries. It is possible to reflect potential and powerful growth of industries through ICT.

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[1] Destination Management Organization

Increased interplays on technology and tourism industry have created some basic changes on tourism industry and our perception of nature. Modern worldwide information and communication availability actuate tourism industry to a complete new stage of challengeable management through a wire. ICT plays a crucial and competitive role as a perfect industry among tourism organization all over the world (UNWTO, 2001).Nowadays, developing search engines, increasing velocity and capacity of Internet networks play an important role on increasing travelers' numbers who intends to travel all over the world. These travelers can plan their travel by applying technology. ICT also has raised organization and travel agencies' effective level and their enjoyment which is accomplished by planning trading techniques in market and customers contact with organizations through network (E-Commerce & Development Report, 2004).ICT development on tourism industry enables travelers to have direct exchanges with agents of tourism industry which decreases exchanges' needs and it can create special services for lots of travelers (Conrad & Buck, 2008).

Statement of problem

Nowadays, tourism industry is considered as an important industry, and this is because of the high level of tourism currently than the past. Velocity and the ease of traveling has removed time and location distances. Not only farther places of a country are connected to each other by the current facilities, but also all parts of world are always linked by tail road, air line and seaways like veins of a body. International transportation development makes people travel a lot and it also facilitates traveling. Statistical findings consider tourism as an industry and economic activity (Helen Voodroof, 2006). Marketing, which is an important aspect of management, is considered more than past in order to provide more success for this industry's activities. Marketing process and its management is a tool for creating a proper link with target markets of related enterprises and organizations. Also, it should be considered that tourism industry is compound of various activities and its' aim is to provide travelers' satisfaction, people and local society profiting. Considering mentioned features makes tourism industry's business clear.

The success of active enterprises' business in this industry depends on target markets' supply method, which necessitates defining marketing concept (Ranjbarian, Zahed, 2010). Today, internet is converted to a collective media for marketing. It is perfect tool for tourism marketing by its vast and great potentials. Internet offers two main services as follows: Communicational services and Informational services. Internet serials are infinite resources of information to achieve leisure, tourism, commercial and occupational goals. People turn to internet for marketing affairs, and internet journals have grown more and more on different fields of IT marketing. Some people have active role in preparing the ground for discussion on different internet journal about internet tourism, and try to highlight different effects of internet marketing on developing tourism industry. This will tends to a deep understanding of internet role on tourism marketing and best application of its role in tourism organizations and tourists' goal to apply its' hidden potentials.

According to the mentioned descriptions we can recognize the main points of present research that are tourism industry and e-marketing and then integrate this aspect and current limitations with time and location field of research (Demetrius Buhails, Rob Low, 609, 2008). At the time of conducting this research and in its geographical place (Iran), we can conclude the limitations of informational systems and lake of an ideal informational electronic system for tourists and users' better achievement to the related information about tourist attractions tends to an unperfected detection of these areas and lack of a proper informational system about tourism in touristic areas. In the present research tourism marketing is studied which is type of the current challenges of 4s informational system in all related fields of this industry as accommodation, transportation, tour guidance and etc, by the use of 4 elements.

Review of Literature

Historical studies show that traveling in Iran was more common and reliable system before the contemporary era by applying the following features;
-Building proper roads as Shahi road at Dariush era and Abrisham road at Ashkanian dynasty.
-Employing a special Caravan to keep the roads.
-Constructing bridge on the river which was built for the first time at Koroush the great and it was used by travelers
- Digging water shafts in deserts to provide comfort for commercial Caravans and travelers.
-Employing desert polices
-Providing brochures and guide maps for caravans in different fields as economic, geographical, or necessary welfare institutions.
-Building inns for travelers' accommodation
-Building welfare institutions and clinics and hospitality locations as developed places

-Tourist enjoyments of people's unsparing helps and local people's hospitality
-Possibility of resting for patients and spending convalescence periods to become better in endowed inns
-Providing travelers by unceremonious hospitality
-Iranian rich culture and great civilization
-Legal security in aggressing and investigating travelers' properties, paying repayment and fine on the part on governor when travelers' properties are stolen, and quick pursuit of aggressor or robber and his condemnation to the worst punishment, all are some points that were mentioned by tourists that were provided for them during centuries (Damad,1997).

Numerous studied were conducted about introducing a model for online shopping that have all shopping steps until the completion of the process, such as Szymansk and Hise(2000), Wolfin barger and Gilly (2003), Rohm & Swaminathan (2004) ;Keen et.al(2004). Also, there are frequent researches about ways of online marketing and sale. Locas studied views and opinions about marketing strategies' analysis for e-commerce and internet by studying Gosh views in 1998. From Locas point of view, internet can create digital value for customers and this is available by offering extra information and exchangeable services based on customers' needs and their categorization and achieving new resources of this value. With regard to proposed models for marketing we discuss the history of these models.

The first integrated marketing model proposed by Nil Borden which includes 12 variables (Constandintes, 2006). At 1960 McCarty, categorized twenty proposed variables by Nil Borden in to four groups so called 4p as follows, product, price, place, promotion. According to Goy (2005) this integrated model was a necessary and proper factor in management and marketing theory. After that integrated 4p models was criticized and some new marketing mix models were proposed by new concepts. SIVA marketing mix model was proposed by Spolter. Social marketing mix model was suggested by Kotler and Anderson. Another model was Booms and Bitenz .4p marketing mix model that include 3 extra Ps and 4c marketing mix model was offered by Laterbern. 5v model was designed by Benet for the first time and Shin(2001)adopted marketing mix model that was proposed McCarty 4p with online companies' sale process. He utilized digital paradigms, exchanges and communications in this model. Kalyam and McCarty (2002) introduced e-marketing. In 2002 the use of 4s marketing mix model was proposed for the first time which is studied in the present article is 4s in which its' 4 elements are research independent variables and their effects on tourism industry in Iran is studied as dependent variable.

Scope: This s represents the primary elements of proposing general decisions that should be considered in 4 areas;
1-Executive and strategic objective of e-business
2-Describing the market including market's potential measurement, detecting and grouping the power of rivals, visitors and customers.
3-Preperation level of organization to accept e-commerce
4-Leading role of e-commerce for organization

Site: Websites are a medium between company and customer like the counter of stores. They are a place for customers' appearance in electronic content and for this they are considered as a main element of e-commerce. As shown before, websites are the virtual gallery of products, a promotive tool for sale and a location for distributing and selling the product and catalogue scattering. Its' main prophecy is to observe internet users, communicating with target markets and also it is a medium for commercial name of electronic organization. Some of common objectives and normal functions of websites are as fallows;
-Advertising services, product and developing the sale (promotion)
-Offering services and supporting activities to increase the customers' loyalty and their tendency to return back
-Introducing consulting services and data base for customers
-Providing reciprocal relationship among customers and companies
-Doing direct sale and online payments

Synergy: It is created among a traditional organization and virtual ones and third parties as (search engines…). The above mentioned definition shows that the fallowing analysis is beneficial for both non-virtual and traditional organizations. Synergy factors include an extended spectrum of issues that are divided into 3 groups as front office integration, back office integration, third party integration.

System: This factor (the forth and the last step of marketing mix model) refers to technical issues. In this part, site's offered services by e-commerce managers are more emphasized. Software-Hardware-Communication protocols, content management, system services, site management, payment system and executive analysis are factors that are considered in this part of 4s model.

Tourism Marketing

Marketing is a management trend in tourism industry that includes predication of tourists' needs and their satisfaction now and in the future so that it compares travel companies and suppliers basically. Exchanges' management is guided by either personal profit or social benefit or both of them and the success of one long-term method depends on reciprocal consumer and supplier satisfaction (Los Limestone, 1997, pp47)

Electronic Tourism (e-tourism) / ET

E-tourism is integrating electronic businesses' method and information technology in preparing methods and tools, and offering supporting tourism services for tourists with high quality and less costs. In fact, ET is to offer all services electronically that tourists were using them traditionally before and also these services that are facilitated by information technology. Generally speaking, it includes all elements of business such as e-trade, electronical research and development, content production, and electronic offering of services in virtual or communicational content. A lot of studies have conducted on applying different electronic marketing (e-marketing) models in tourism industry such as Demetrious Bohails and Rob Low (2009) that studied e-tourism situation and information technology usage in tourism industry during last 20 years and 10 future years. Eric Berg and M.Morison Etial (2007) proposed a research about electronic marketing for travelers' accommodation. Also Papathnasis and Eric Knol(2010) studied and reviewed how travelers spend their holiday online and also their online visiting before traveling to a pre-determined location, and proposed some views about providing online services for decreasing costs and facilitates to travelers. A few travel agencies reviewed their marketing and business models to enjoy electronic communication and relationships privileges. Most of them used the very first facilities that related to the internet (Sigala, 2009). So by using web and internet facilities as marketing tools, travel agencies can get particular privileges about costs' decrease, income growth, marketing research, basic information development and customer preservation (Hersel, 1994).

Hypotheses

First hypothesis: Scope plays an important role on tourism industry development by providing rich information and having communicative, sensational and promotive effects.
Second hypothesis: Web-sites designing has effective role on tourism industry by providing a place for consumers' appearance in electronic content and as a main product of development.
Third hypothesis: Synergy plays an important role in developing tourism industry in digital virtual and authentic contents by decreasing distribution costs.
Forth hypothesis: Providing an electronic servicing system improves tourism industry by offering services with less cost and creating benefits in tourism organizations.
Fifth hypothesis: All 4 above mentioned hypothesis have the same importance in tourism industry in Iran.

Research Approach

The main reason for choosing this topic for research is to detect Iran's tourist attractions more by a facilitative and communicative tool like internet as a systematic framework and an effective model as an integrated e-marketing model. This study is a practical survey in which a questionnaire was designed to gather data for effective level of 4s integrated marketing model in tourism industry. The questionnaire was designed in 5 point Likert scale as very little to very much that are distributed among technical managers of travel agencies and traveling organizations' employment. To evaluate the validity of questionnaire Alfa was estimated for it 0.81. Statistical analysis methods used for data analysis were t-test, correlation coefficient and multivariate regression. The purposes of the current article are as fallows;
1- Developing tourism industry of Iran by applying 4s electronic marketing model.
2- Studying modern and online marketing methods in related organizations and replacing it with traditional methods such as 4p.
3-Evaluating and measuring effective level of these methods in tourism industry development in Iran various tourist attractions.

Data gathering

All required data for conducting the present research were collected by referring to different reliable sites and data banks and internet network.

Data analysis

Investigation of the first research hypothesis: Internet scope plays an important role on tourism industry development.
Hypothesis related to the compare of practical and theoretical arrange values could be written as fallows;

t-test results / Independent variables	Sample numbers n	Sample average x	Standard deviation of sample s	Statistic measure of test t	Degree of freedom d.f	P- value
Scope	170	3.7894	0.5052	20.372	169	0.00
Site	170	4.0706	0.5866	23.796	169	0.00
Synergy	170	3.8967	0.4395	26.598	169	0.00
System	170	4.1261	0.4072	36.058	169	0.00

H_0: $\mu = 3$ (Internet scope doesn't an important role on developing tourism industry)

H_1: $\mu > 3$ (Internet scope plays an important role on developing tourism industry)

As mentioned in the above table, and particularly according to the measure of p-value = 0.00, the null hypothesis is rejected at error level of 5 percent. In other words, the observation average value is greater than 3 that are significantly meaningful and this means the hypothesis of the research is approved that the internet scope plays an important role on developing tourism industry.

Investigation of the second research hypothesis: Web site designing has effective role on tourism industry by providing a room for customers' appearance in electronic content.

Hypothesis related to the compare of practical and theoretical arrange values are;

H_0: $\mu = 3$ (Web site designing has not effective role on tourism industry by providing a room for customers' appearance in electronic content).

H_1: $\mu > 3$ (Web site designing has effective role on tourism industry by providing a room for customers' appearance in electronic content).

As mentioned in the above table, and particularly according to the measure of p-value = 0.00, the null hypothesis is rejected at error level of 5 percent. It means that observation average value is not greater than 3 and since practical average (4.0706) is greater than 3, the visionary average, so we can conclude that visionary average value is significantly greater than 3 and in other words, the research hypothesis is approved at error level of 5 percent. Consequently, one can say website designing has effective role on tourism industry by providing a room for customers' appearance in electronic content.

Investigation of the third research hypothesis: Synergy plays an important role in developing tourism industry in digital virtual and authentic contents by decreasing distribution costs.

Hypothesis related to the compare of practical and theoretical arrange are written as;

H_0: $\mu = 3$ (Synergy doesn't plays an important role in developing tourism industry in digital virtual and authentic contents by decreasing distribution costs).

H_1: $\mu > 3$ (Synergy plays an important role in developing tourism industry in digital virtual and authentic contents by decreasing distribution costs).

As mentioned in the above table, and particularly according to the measure of p-value = 0.00, the null hypothesis is rejected at error level of 5 percent, so we can conclude that the observation average value is significantly greater than 3. In other words, the researcher hypothesis is approved at error level of 5%. So we can assert that synergy plays an important role in developing tourism industry in digital virtual and authentic content by decreasing distribution costs.

Investigation of the forth research hypothesis: Providing an electronic servicing system improves tourism industry by offering services with less cost and creating benefits in tourism organizations.

Hypothesis related to the compare of practical and theoretical arrange values could be written as fallows;

H_0: $\mu = 3$ (Providing an electronic servicing system doesn't improve tourism industry by offering services with less cost and creating benefits in tourism organizations).

H_1: $\mu > 3$ (Providing an electronic servicing system improves tourism industry by offering services with less cost and creating benefits in tourism organizations).

As mentioned in the above table, and particularly according to the measure of p-value = 0.00, the null hypothesis is rejected at error level of 5 percent. It means that observation average value is not greater than 3 and since practical average value (4.1261) is greater than 3, the visionary average value, so we can conclude that visionary average value is significantly greater than 3 and in other words, the research hypothesis is approved at error level of 5 percent. So we can conclude that an electronic servicing system improves tourism industry by offering services with less cost and creating benefits in tourism organizations.

Analysis of Correlation Coefficients and Regression
The descriptive indices are proposed for independent variables and dependent one.

Table of descriptive indices for independent variables and dependent one

Research variables		Description indices		
		Sample amount	Average	Standard aviation
Dependent variable		170	4.11	0.590
Independent variables	**Scope**	170	3.78	0.505
	Site	170	4.07	0.586
	Synergy	170	3.89	0.439
	System	170	4.12	0.407

In the following table correlation coefficients between independent variables and dependent one are reported:

	Scope	Site	Synergy	System
Correlation coefficient with independent variable	0.308	0.375	0.390	0.355
P-value	0.00	0.00	0.00	0.00

As mentioned in the above, all independent variables have direct linear relationship with the dependent variables and all relationships are significant at error of 5%. Also it can be conclude that synergy has the most and scope variable has the least correlation with dependent variable. The chosen regression model is as fallow;
$$Y = 1.653 + 0.249x_2 + 0.37x_3$$
Or
$$Y = 1.653 + 0.249(\text{site}) + 0.37(\text{synergy})$$
The linear multivariate regression equation is for showing the relationship between independent variables and dependent one.
Friedman test for ranking independent variables:
To rank each of the hypothesis based on their importance, a Friedman test was applied. This test uses when the statistical data are ordinal or when we can rank them as ordinal and in two-way Friedman test is practical when a factor is important than other factors or all factors have the same importance. This test was used for two groups separately.
With regard to the ranking of the research hypothesis, we have the following hypothesis:
Null hypothesis: All four mentioned hypothesis are not similarly important.
Hypothesis: All four mentioned hypothesis are similarly important.
The summery of Friedman test for ranking the hypotheses are reported in the following tabl

Sample amount	Sample statistic measure	Degree of freedom	P-value	Test result
170	93.257	3	0.00	Approving null hypothesis

As shown before, the null hypotheses which implied that all variables are similarly important, is rejected. So, it can be concluded that four hypotheses are not similarly important. The grades of variables are reported in the following table;

Variables grade

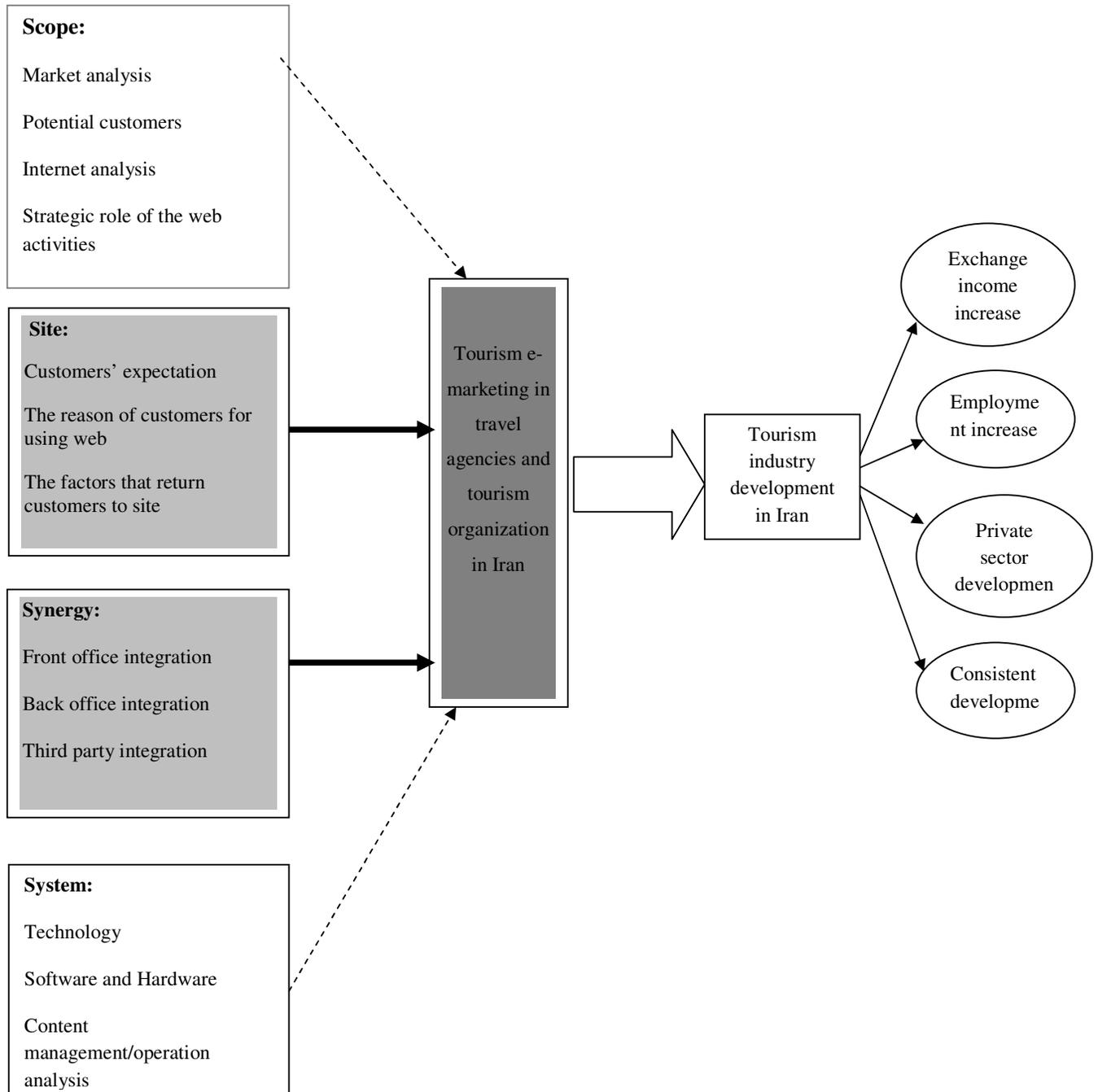| Grades' average	Title of independent variable
1.89	Internet scope
2.93	Website designing
2.20	Synergy in the system
2.99	Providing an electronic servicing system

Ranking of independent variables based on respondents' view are as fallows;

1- Providing an electronic servicing system
2- Website designing
3- Synergy in the system
4- Internet scope

Conclusion

According to the findings, all hypotheses were approved and they played an effective role on Iran tourism industry and it is approved that applying 4s electronic marketing mix model is effective, and there is a significant relationship between independent variables and dependent one. Also the fifth hypothesis represents that all four mentioned hypotheses are not similarly important and they can be ranked respectively as fallow:

1- Providing an electronic servicing system
2- Website designing
3- Synergy in the system
4- Internet scope

Scope:

Market analysis

Potential customers

Internet analysis

Strategic role of the web activities

Site:

Customers' expectation

The reason of customers for using web

The factors that return customers to site

Synergy:

Front office integration

Back office integration

Third party integration

System:

Technology

Software and Hardware

Content management/operation analysis

Tourism e-marketing in travel agencies and tourism organization in Iran

Tourism industry development in Iran

Exchange income increase

Employment increase

Private sector developmen

Consistent developme

The findings show that there is a significant relationship among all variables. Also, investigating the variables' relationships show that all aspects of independent variables of 4s marketing mix model as scope, site, synergy and system have significant relationship with developing tourism industry. Finally it is remarkable that information technology and applying e-marketing strategies provide an extended range of opportunities and challenges in virtual and cybrary for tourism industry's activities, so that a major investments for exchanges' reengineering show that it activates electronic economic potential (Yeoryios Stamboulis, 2003). Also other research that is conducted about applying e-marketing integrated model in tourism industry represents that travel agencies in Iran use websites for a limited purposes and just they apply it for giving information and introducing virtual contents and just a few of them use internet as an innovative tool for e-marketing mix model. This shows that in Iran tourism industries activates can predict and design international and online e-marketing methods for travel agencies (Farzamnia, 2009).

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