IMPACT OF IT AND OTHER TECHNOLOGIES TO RELIGIOUS TOURISM

DRAGANIĆ TRIPKO[1], RAJEVIĆ DRAGAN[2]

[1]Faculty for strategic and operational management, Belgrade, Serbia
[2]Faculty for Education of the Executives, Novi Sad, Serbia

"Every regency of an eparchy,
should have its own Web site,
through which it will disseminate information about their work,
have a dialogue with the authorities and discuss
socially important and controversial issues. "
Patriarch Kirill

Abstract: *If we consider the impact of IT on religious tourism, we must notice a causal link between them. The spread of IT and Internet communications networks influenced the development of religious tourism. In the preceding study and research the development of information technology, and the consequences it introduced to the business of pilgrim organizations and agencies.*

In addition, we will try to consider the positive impacts of IT on travel agents, tour operators, and tourists themselves as part of tourism as a whole. Tourism has proven to be extremely flexible to adopt new information technologies to their own development, which is determined by supply and quality of information exchange. As an excellent growing sector of the economy in the field of information, tourism in general is going through rapid and radical contemporary changes. The technology facilitates the speed and efficiency with which information is processed or stored, transmitted and distributed, and how to manipulate it further.

IT can reduce operating costs and information services, to increase the speed of their transmission, as well as feedback, but also to increase the participation of the beneficiaries. In order to improve its offer, pilgrimage organizations need to follow these trends in the information technologies, particularly those applied to other types of tourism.

Keywords: *IT, communications, religious tourism, efficiency, impact of the Internet*

1. IT AND TOURISM

Knowledge and access to information have become a new way of exercising power in the world. Thanks to information technology, computer science, information science, as a

scientific discipline deals with the processes of storage and transmission of information in all countries around the world.

Informatics expert were primarily interested in making storage and processing of various documents from different scientific disciplines easier. However, due to rapid development of computer science in the world, computer software in various fields is used today, and their importance is great from many aspects. It is known that software engineering is developing rapidly since 1968, since when efficient methods for specifying requirements, design, and implementation are developing, with the aim of better work and perfect IT products of large and complex systems, as well as their openness and their usage.

Modern IT, information systems and their application in the business systems in recent decades has a very strong development.[1] Of all the factors that influenced the development of information technology, the most important is the development of microcomputer technology. With the advent of electronic computers, the essence of information systems and business systems in particular changed.

The international tourism market in the last thirty years due to the application of modern information systems is emerging and expanding the trend of continuous increase.

Advantages of IT show that tourist destinations and tourism companies lose their competitive advantage if they do not adapt themselves to current electronic distribution channels and the application of this electronic transformation in their own business. Product characteristics of the service sector, including tourism products is the inability of the true valuation of consuming themselves, usually consumed away from the place of residence.

Information on tourist product consists of a description of services provided by travel agencies, which have a major impact on tourists. Information that is "fresh" and that matches the wishes and needs of tourists might be crucial for the realization of a product of tourism. In other words, for consumers, satisfying their needs and desires and for the manufacturer, the successful promotion of its product will depend on the successful transfer of "fresh" information through the distribution channels. For this reason, tourism is one sector of the economy in which IT is widely and frequently used.

Modern technology with their evolving capacities reduces the physical distance between people, between the most distant points on the planet, contributing to greater tourist migration, and the furthest destinations are becoming more attractive for tourists. Electronic media and over 3000 commercial satellites[2] allow any human on the Earth to find what he is interested with one click using the internet and so become a member of the so-called global village.

When it comes to international tourism, an information-intensive area; has five stages forming the basis of business strategy in the overall IT development. These stages reveal the order of development:[3] the first stage is data processing, operational management is the second, third stage is contribution to business intelligence, knowledge of experts brings together is the fourth and last, the fifth is the adoption and execution of business decisions.

Information technologies include the latest developments in electronics and communications, by which information may be collected, broken down, stored, analyzed, processed, and distributed. The tourism industry in the last 20 years intensively used IT under different names as virtual reality, e-commerce, CD-ROM, Internet, teleconferencing, and so on. Today, IT plays a major role in marketing. Development of IT has created many opportunities for tourism companies. Through the possibility of creating, collecting,

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[1] Milicevic Miroslav, Stanic Rade, „Informatika u turizmu", Belgrade, 2007, p.171
[2] Pecujlic Miroslav, „Globalizacija", Gutenbergova galaksija, Belgrade, 2002, p. 55
[3] Pecujlic Miroslav, „Globalizacija", Gutenbergova galaksija, Belgrade, 2002, p. 55

processing, storage and transformation, the IT facilitate daily activities and become an important element of business applications in tourism, and rapid growth of mutual supply and demand in tourism is the result of intensive use of IT. Scientists involved in the tourism industry accept the fact IT had a revolutionary effect on the industry and that is completely reshaped operation in tourism.

2. HISTORICAL DEVELOPMENT OF INFORMATION TECHNOLOGIES

Human history has recorded three milestones, which are entirely changed the previous ways of life. The first milestone relates to the emergence of agriculture, and occurred about 10,000 years ago. Then, in late 17th century, in Europe there has been another big boom in human history - the industrial revolution. This process, often referred to as the "industrialization" had a devastating impact on the entire civilization. The process of industrialization is not finished yet, because many economically underdeveloped countries still base its development on agricultural development, or simply lack the resources to carry out the process of industrialization to the end.

The beginning of the 20th century brought a new third wave of changes, and the roots of these changes were the information and technology. After the Second World War, there was a sudden technological advance especially in the developed industrial countries, while some countries even today struggle to adjust industrial structure and technological changes and structures that are based on information technologies. New major resource of human society was no longer capital, nor has labor, major resource become information.

The economic analysis conducted in the beginning of the 20th century, concluded that each economy consists of three agricultural components as the primary, industry and services as secondary as tertiary sector. In other words, each of the economy is divided into these sectors in different proportions. What we can claim is that, both in developed and less developed countries, this ratio is in favor of the service sector. In any case, information plays an important role in development of a country, if there are differences in the amount of productivity across sectors.

It is generally accepted that the information era began in the years after World War II. With the early information age, a large number of sectors including tourism started changes initiated by the changes of this new period.

3. HISTORICAL DEVELOPMENT OF IT IN TOURISM

The figure below shows the historical development of IT and its use in tourism. The first stage in the development of IT was the invention and usage of telegraphy since the second quarter of the 19th century. From the late 19th century there were telephone, radio, fax and television, and in later years a computer. The computer has had more functions than the concept of creating and booking information to use in the production and communication. The computer is used as a payment method for the preparation of business and accounting reports, storage and updating of customer data.

With constant improvement of the methods of data storage and processing of small and cheap electronic devices, the computer has become a widely used product in almost every aspect of business. In late eighties, there was an intensification of competition, which forces all companies to invest a large part of the money in the development and implementation of IT within their concept of operations, particularly in the marketing activities. Managerial

and operational activities continued to be a very important part in the overall operations of the company, but put much more emphasis on gathering information about the market and finding potential buyers. During the last decade, the primary function of IT was the production of quality services and promoting them in the most effective way.

As specifically regards the travel and tourism, airlines were the first companies in the chain of providing tourist services that applied IT for business purposes.[4]

During the 50's, high communication costs have forced airlines to develop special software called airline reservation systems, which were used for booking flights, seat arrangement, confirmation of tickets, ticket sales and so on.

Today, no matter it costs a lot, many tourism companies have implemented IT in their operating systems. Many functions are performed by using electronic devices, which increase overall operational efficiency.

Table no. 1 - Historical development of IT in tourism

Usage of IT in tourism						
	Designation	Airline reservation system (ARS)		Computer reservation system (CRS)	Global distribution system (GDS)	Global travel information and booking systems
	Government forms	Inter-organizational systems		Inter-organizational systems	Electronic market System with specific components for traveling and tourism	Electronic market System for different types of tourism products
	Access	Inventive system: - Paying; - Forming a business -invention and storing customer data		Onetime access system	Multi-access system	Huge multi-access system
	IT development	Telegraphy	Telephone, radio, fax, TV	Computer technology	Development of microelectronics, wide PC, usage IT	Internet and World Wide Web; E--mail, chat e-markets Travel portals	Virtual reality, multimedia kiosks, storage devices, Internet & Extranet, e-commerce, interactive TV, intelligent cards, satellite and
	Year	1825-1870	1870-1955	1955-1965	1965-1980	1980-2000	2000-

3.1. COMPUTER RESERVATION SYSTEMS AND GLOBAL

Reservation systems are a very important component of the tourism products distribution system. Advance booking can be made using them (booking of accommodation and transport).

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[4] Kozak Metin, Andreu Luisa, "Progress in tourism marketing", Elseiver, 2006

There are three types of reservation systems: manual, computerized, and automated reservation systems.[5]

Computer reservation systems[6] include a centralized network of a reservation between interrelated companies such as airlines, travel agencies, and hotels. In tourism, this network allows travel agencies to book airline tickets, hotel, and places to store and maintain information about users of its services and hotels and airlines are working with. In 90's, CRS system developed in the global distribution system (GDS). Global distribution system of information is communication system designed for the sale of services in the tourism industry, which connects on the one side the service providers in the tourism industry, and on the other vendors of these services i.e. travel agencies.[7]

The best-known GDS systems are GALILEO and AMADEUS. GALILEO[8] is a global satellite navigation system made by the European Union and European Space Agency. GALILEO is a standard generic term for satellite navigation system that enables autonomous and spatial positioning with global coverage.[9]

AMADEUS IT Group is one of the largest companies for booking airline tickets. More than 100,000 travel agencies and 35,000 airlines are using Amadeus global distribution system to sell their services.[10] This company also makes reservations for over 85.000 hotels, 25 car rental agencies, as well as rail, sea, and any other form of traveling.

Besides the possibility of fast reservations and booking travel trips, this system acts as a teaching assistant in affairs related to organizing the trip and here we have in mind the provision of all necessary official documents, visas, cards, vouchers, invoices, and provides a range of information related to airports, cities, countries, currency converter, date and time, kilometers to miles and a number of other formal information that are integrated part of traveling to remote destinations.

What is the origin of the global distribution system? In 1978, deregulation of the airline system was obvious, which affected the possibility of increasing capacity, stronger competition, falling prices, and profit margins. This has led airlines to develop their own reservation system and then connect them with hotel companies, travel agencies, tour operators and all other related companies. Because GDS combines a number of tourists, travel and other operating companies with computer networks, this has led to the standardization of many services.

3.2. INTERNET AND WWW (WORLD WIDE WEB)

The establishment and launching of global Internet can be attributed to the U.S. Department of Defense that in 1970, made the ARPAnet project.[11] The purpose of this project was the development of communications networks in the event of a possible nuclear war. With the end of the Cold War, the project continued to be used for the same purpose. First used by powerful academic institutions, but later became popular with a wide audience, especially with the development of www application. Internet connection is a connection of more individual computers using TCP/IP, as well as many individual networks into a single logistics network, in which all devices share the same addressing scheme.[12]

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[5] Milicevic Milisav, Stankic Rade, "Informatika u turizmu", Cigoja, Belgrade, 2007, p.174
[6] Computers Reservation Systems (CRS)
[7] Milicevic Milisav, Stankic Rade, "Informatika u turizmu", Cigoja, Belgrade, 2007, p.177
[8] After Galileo Galilei, the famous astronomer
[9] www.wikipedia.com
[10] www.amadeus.com
[11] Kozak Metin, Andreu Luisa, "Progress in tourism marketing", Elseiver, 2006
[12] Stankic Rade, "Poslovna informatika", Cugura, Belgrade, 2003, p. 157

A very important component of Internet are its services that allow us to access information stored on the servers over the network and on our PC run client software. The most important services are public services that allow easy access to information and data on the network without additional identity verification. World Wide Web is the most popular service on the Internet used to link documents on the network in the form of hyperlinks.[13]

From 1990, computer technologies are beginning to be used for purposes of electronic commerce. Electronic commerce can be defined as a reliable exchange of knowledge, goods, and services using electronic networks and additional digital network. During the 90's, Internet was widely used both in commercial as well as business purposes. Tourist businessmen use new technologies to promote and sell their products.

One consequence of the development of Internet and Web networks to tourism was that traditional brokers in the sale of its tourism product, tour operators, and international and national tourism organizations attempted to replace with the possibility of direct access to a potential buyer. In addition, a large number of destinations and travel companies, with one or more tourism providers in the continuum, adapted their business to information technology.

Travel portals are one of the fastest growing types of business on the Internet. Many online travel agencies book travel services, contract, and respond electronically to demands if they rise. The most famous travel agency of this type is expedia.com in the U.S. and orbitz.com in Europe. Using this portal, travelers have the opportunity to book their flights, hotel room or rent a car electronically within 5-6 minutes. According to some research, online travel sales reached 64 billion in 2007 from 24 billion dollars in 2001.[14] In addition, the fact potential customers can quickly and easily book the trip, they can enjoy comparison the prices of individual tourism operators and then choose the one that best suits their pocket.

The objectives of the Internet presence are:

1. The acquisition of new customers;
2. Direct sales (Business to Consumer)
3. Business-to-Business sales (business with companies)
4. Consumer support
5. Education[15]

These and many other economic advantages that Internet offers, cause the expansion of electronic commerce. What is surprising is that the Internet is widely used for religious purposes, and even in some traditionally oriented religions, such as the Muslims.

Today, there are a number of portals that offer organizing any kind of religious travel on the Internet, promote them providing audio, video and other records from such religious events. Many religious leaders agree with the fact that it allows the dissemination of religious messages, while from the perspective of religious tourism it reduce advertising costs, increase market from regional to global and provides 24-hour advertising.

Through direct marketing and creating Web sites, or through sharing experiences and updating files on religious and pilgrim events, and by uploading pictures from some global networked portals such as Facebook, My Space, Twitter and Flicker successful advertising is guaranteed.

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[13] Stankic Rade, „Poslovna informatika", Cugura, Belgrade, 2003, p. 163
[14] Kozak Metin, Andreu Luisa, "Progress in tourism marketing", Elseiver, 2006
[15] Milicevic Milisav, Stankic Rade, „Informatika u turizmu", Cigoja, Beograd, 2007, p. 264

Figure No.: 1 - Example of a portal for organizing religious trips to the Holy Land[16]

Sample itenerary. (8 days and 7 nights) - Programs of itineraries of the p...   file:///C:/Documents%20and%20Settings/pc/Desktop/Sample%20itener...

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THE ORTHODOX PILGRIM ON THE HOLY LAND

Home
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Pilgrimage center in Jerusalem
Pilgrimage itineraries
   Programs of itineraries of the pilgrimage center " Russia in colours "
Photographs
News
History of the Holy Land
Tradition
Questions and answers

News from the Holy Land

Photoalbom "Jerusalem Souvenirs". Begining of XX century

Sample itenerary Orthodox pilgrims in Holy Land (8 days and 7 nights)

In November in Jerusalem it is planned to lead the international scientific - public conference «Jerusalem in Russian spiritual tradition».

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**Sample itenerary
Orthodox pilgrims in Holy Land**

(8 days and 7 nights)

Day 1.

Departure to Israel.
Monastery of St. George in Lidda: Tomb of the Great-martyr George.
Transfer to Hotel in Jerusalem.
Supper and rest .

Day 2.

Breakfast.
Departure to Bethlehem.
Church of Nativity in Bethlehem.
Beit-Sahour - Sheppard's Field.
Excursion to Mar-Saba monastery in Judean desert - optional (Only men allowed inside the monastery).
Monastery of st. Feodosius
Supper at hotel and rest in Jerusalem.

Day 3.

Breakfast
Mount Zion. Abbey of Dormition, Last Supper Room.
Departure for too day trip to Galilee via the Jordan Valley.
Monastery of St Gerasim in Jordan Valley.
Capernaum: Greek church of 12 apostles.
Supper and overnight in Tiberias.

Day 4.

Breakfast.
Great Blessing of Waters of Jordan river. Yardenit.
Mount Tabor. Greek Orthodox monastery.

1 of 3   7.4.2010 12:54

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[16] eng.palomnic.org

Here is a list of all e-marketing and e-commerce applications used in tourism:[17]

Table no.: 2. E-commerce applications used in tourism

E-commerce	Company	Consumer	Government
Company	B2B The communication network between the hotels and tour operators	B2C E-business applications for buying tickets online	B2G Business relations with government offices
Consumer	C2B The specific requirements of customers towards hotel's company and airline companies	C2C The exchange of positive or negative experiences between tourists	C2G An application for tourist, which allows it to get a visa and destination information
Government	G2B Informing tourism companies about the quality of the food or taxes by the state	G2C Informing consumers about legal regulative in the country, security, visa requirements, etc.	G2G Receiving technical assistance from the government of a destination of international organizations, such as the World Tourism Organization

4. IT AND MARKETING IN TOURISM

As a part of the global service sector, tourism services can also be regarded as a form of information services. Finding and using information in the production and consumption is more important in the tourism industry than any other. Due to the nature of the product, the consumer or tourist buys or request information about a product and as the place of consumption of the product is further away from the place of the consumer, to need for more information is bigger.

At the same time, when tourism companies access planning and strategy of their own business they want to gather as much information as possible about potential customers and their needs and requirements. Of course, the exchange of information must be correct, fast, and at affordable costs. In the tourism industry, information is moving through a number of distribution channels that include consumers, manufacturers, research units, government, and other organizations.

As is known, many tourism products are consumed at the place at which they were designed. Hence, tourists have no opportunity to try and physically examine the product before deciding to buy it. For this reason, when tourists bought travel product, it purchase actually a picture of this product. The picture that is created on this product was created based on information gathered through various distribution channels.

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[17] Kozak Metin, Andreu Luisa, „Progress in tourism marketing", Elseiver, 2006

The nature and quality of information presented before active experience becomes crucial because that information is the source upon which an expectation is going to be built, which evaluates the quality of the product. Similarly, the supply of updated information including details of tourism products is very important to create a reasonable expectation. Hence, internet marketing compared to traditional marketing has the characteristics of direct marketing.

The most important characteristics of direct marketing are:[18]

- Striving to sell products or services, distributing the information required for buying directly to potential customers;
- It is a personal communication;
- Trying to sell products and services from a large distance;
- The effects of direct marketing are easily and accurately measurable

The wide use of IT has also attracted a large number of changes in the behavior of tourist consumers. Easy access to information about products and services creates less loyalty, much more selectivity, and much larger demand for high quality products and higher tendency to frequent and short breaks.[19] Such changes in tourist's behavior when shopping change the marketing efforts of many tourist destinations.

The information is moving through various channels, thus connecting producers and buyer. For this reason, the connection between producers and consumers in tourism will depend on well-organized information network. In addition, information from the organization as well as those from external sources is necessary to control costs, to improve server performance of marketing functions and to create sustainable competitive advantage on the market.

IT has two functions in contemporary marketing:[20]

1. At the macroeconomic level, enable development, prosperity and create competitive advantages;
2. At the microeconomic level, it is a mean of increasing the efficiency of operational management, which is extremely important for maintaining competitiveness on the market.

4.1. THE USAGE OF ELECTRONIC DOCUMENTS AND BROCHURES

Electronic documents and brochures can be defined as files that are made from any kind of text, voice, images or graphics, and that may be transferred to PC via the keyboard, scanner, camera, video, electronic e-mail, telex and fax. They can still be defined as a document that is generally stored on media such as magnetic disk, magnetic tape, punched cards, and whose content can be read only by certain machines.

These documents are stored on different technical devices, but when sent from one place to another, they are transformed into electronic signals. The usage of electronic documents is widely spread, which is especially true for the banking and tourism.

In addition to the expansion of electronic forms of documents, the traditional role of the paper is not extinct. However, what is the merit of electronic documents is that it significantly reduced the cost of sending and transferring documents to remote distances, but also reduces costs of their storage and archiving, not to mention the speed of the transferring documents.

Promotion and advertising in the tourism industry is very important key to success. The main goal is to promote getting familiar the potential buyer with the product, with its main

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[18] Milicevic Milisav, Stankic Rade, "Informatika u turizmu", Cigoja, Belgrade, 2007, p. 254
[19] Kozak Metin, Andreu Luisa, „Progres in tourism marketing", Elseiver, 2006
[20] Kozak Metin, Andreu Luisa, „Progres in tourism marketing", Elseiver, 2006

advantages, and to convince the customer to buy their product. Instruments used for promotional purposes are generally printed advertising materials, brochures, flyers, and posters. Promotion can be done on radio, TV, Internet, by which tourism demand can significantly increase. This is the reason why much of the money tourism companies spend on development of promotional materials in electronic form.

For the pilgrim who starts on a pilgrimage for the first time, modern IT can be useful because, even though religious tourists has no high demand as a tourist as a recreational tourist, adequate provision of information on accommodation and some supporting elements of the arrangement is certainly gaining in importance. Topics of the electronic travel guides for the pilgrimage can be the pilgrimage route, restaurant and hotel infrastructure, ceremonies and rites to be held in the holy place or during travel and cultural context that will enrich the experience of the pilgrims. In addition, we live in a time when even religious tourists do not have much time available, and they want to visit all. Therefore, for them is also very important how to choose a travel agency. Because, to travel to meet "with eternity," they must be to plan a short, time of this world they have available, and to be timely notified about the quality of the arrangements of the agency that deals with religious tourism and that provides pilgrimage services. Moreover, IT, today more than ever and for mutual benefit, serves this purpose.

RESUME

[1] Milicevic Miroslav, Stankic Rade, "Informatika u turizmu", Beograd, 2007
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