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Development plans and the state of e-tourism: Case study in Novi Sad

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The main idea of this paper is the fact that the development of travel and tourism industry is closely connected to the growth and impact of ICT. It is necessary that governments, realizing the economic and social value of tourism, create a necessary infrastructure able to accommodate this development. Authors define the main concepts of e-tourism in the world today, analyzing them in this case study. Development plans and the actual state of e-tourism in Novi Sad, the capital of the Serbian province Vojvodina, are presented separately. There is also information about the state of implemented ICT solutions for e-tourism in this region.

Key words: E-tourism, Vojvodina, case study, development plans.

INTRODUCTION

Among the high-level priorities of the development in modern world we can find travel, tourism and e-society. According to World Travel and Tourism Center (WTTC), the contribution of travel and tourism to Gross Domestic Product (GDP) in the world is about 9.9% (US\$ 5 890 billions) and it is expected to grow at a level of 4% per year over the next 10 years. It is an opportunity for every part of the world to join this process and to share the benefits. Travel and tourism is one of the industries which generate the most employment, with 238,277,000 jobs in 2008 (WTTC, 2009). When we look at the world's regions, travel and tourism economy in EU is ranked on the first place and in Central and Eastern Europe on the fourth. As the tourism is an international industry and the biggest provider of jobs on the planet, we can find a greater array of heterogeneous stakeholders than in many other industries, especially between destination management organizations and tourism firms (d'Angela and Go, 2009).

The development of travel and tourism industry can

only be mirrored by the growth of ICT. This industry can only grow if governments realize its real economic and social value and create the necessary infrastructure capable to accommodate this development. The special importance in this process has the cooperation of tourism firms and clusters (Bhat and Milne, 2008) and their attaining to the global competitiveness (Erkus-Ozturk, 2009).

Accelerating and synergistic interaction between ICT and tourism in recent times has brought fundamental changes in the industry and on our perceptions of its nature. Result of that joint development is e-tourism, which reflects in the digitalization of all e-commerce processes and value chains in the tourism, travel, hospitality and catering industry. The term e-tourism is usually used in tourism industry to reflect the usage of Internet-based applications, limiting the scope of this term to the World Wide Web (Duff, 2002). In this paper we are trying to analyze strategic development plans and the state of e-tourism in the city of Novi Sad, the main city of Serbian region Vojvodina.

Role of ICT in e-tourism

Technology plays a crucial role in expansion of the travel

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and tourism industry. Technological progress in ICT during last 30 years enabled higher level of life almost all over the world. Beside higher level of productivity, ICT provided new info-structure for the development and operation of tourism suppliers and consumers, empowering them to communicate, inform, negotiate and develop new bridges to reduce distance, cultural and communication gaps (Buhalis, 2003). The Internet technologies are widely used as a means to deliver up-to-date content. As tourism is intensive content-based activity, their products are strongly dependent upon representations and descriptions of information, while ICT tools are indispensable to the global marketing and tourism (Sheldon, 1997). That makes ICT and tourism closely interrelated, generating the changes in demand and supply of tourism activities.

Due to the popularity of Internet applications, most tourism organizations such as hotels, airlines and travel agencies have embraced Internet technologies as part of their marketing and communication strategies. Thus, we come to the findings represented in (Liu, 2005) that tourism is one of the leaders in the development of e-business applications with their consumers (B2C) and other businesses. This new, interactive way of doing business in tourism, supported by the Internet applications, is called online tourism (Sharma and Delacy, 2000). According to the European e-Business report, the strongest penetrations of online transactions are found in publishing (37%) and tourism (36%) industries.

The Internet is one of the most influential technologies that have changed travelers' behavior. ICTs enable travelers to access reliable and accurate information as well as to undertake reservations in a fraction of time, cost and inconvenience required by conventional methods. Information search is a significant part of the purchase decision process and was revolutionized as a result of the Internet. An important topic is the digitalization and presentation of cultural heritage from memory institutions (galleries, museums, exhibitions etc.) on the Internet infrastructure (Hadžić, 2004).

The crucial contribution of ICT to the tourism has Computer Reservation Systems (CRS), which are helping in handling with tourism resources and in their distribution to the potential consumers. They originally appeared in the 60s of the last century as airline CRS, but they are dominating from the 80s in tourism, when they found new fields like travel, lodging, leisure and sightseeing all over the world. We can find global CRS, but also systems which corresponds with exact tourist destinations, which are providing information about locally available attractions, products and facilities.

The Internet was, therefore, identified as a clear beneficial distribution platform for principals. The Internet also enables principals to identify and target customers more accurately and effectively. A wide range of segmentation questions are often asked in the profiling of consumers

and specific market segments are frequently diverted to specialized parts of the Internet provision. Transcending geographical borders allows them to penetrate foreign markets and to embrace a much wider consumer pool towards expanding their market share.

Literature review

When we think about the functional roles of the customers in e-tourism, we can see their cognitive (Walker et al., 2002) and emotional aspects (Kim et al., 2003) in the decision process to adopt or reject the proposal. Symbiotic effect of these aspects has to be presented in a Web site which delivers relevant and well presented information in an engaging manner (Ha and Perks, 2005).

Most of the authors who wrote about the adoption of ICTs, advocate 3 well known accesses: technology acceptance model (TAM) (Davis, 1989), (Davis et al., 1989), modified theory of planned behavior (TPB) (Ajzen, 1988) and innovation diffusion theory (IDT) (Rogers, 2003). Venkatesh and Davis (2000) extended the original TAM model to TAM2, explaining perceived usefulness and usage intentions in terms of social influence and cognitive instrumental processes. Lazy user model of solution selection was created by (Collan and Tetard, 2007) and it starts from the observation that there are clearly definable user needs that he wants to satisfy. According to this model, the set of possible solutions should be defined and after that the selection of one with the lowest combination of costs, time and efforts has to be made.

Stewart (2009) considers usability as one of the major factors of success of any technology, where he puts the fact that being effective allows the user to produce desired outcome. The survey by Guo and Salmendi (2009) defines the significant content factors of web sites, where the results of the study indicate 15 main content factors for e-business web sites. The paper by (Liao et al, 2008) proposes a conceptual model, focused on the information content for consumers to make a rational decision, where content preparation for cross-cultural exchange of information is analyzed from the aspect of cultural differences between countries during the process of content preparation. Kujala (2008) presents, on the basis of seven case studies, an early user-involvement process showing that when the process supports effective early user involvement - the results are more successful and their quality is better than average.

Wang et al. (2002) are trying to identify a theoretical foundation for the concept of a virtual tourist community based upon the core characteristics of the virtual communities and the fundamental needs of community members, concluding with the implications made regarding virtual communities in the travel industry from marketing and design perspectives.

Table 1. Research techniques used in this paper.

Research entities	Research technique	Number of entities in research
Relevant stakeholders in tourism	interview	4
Web sites with tourist information	In depth analysis	35
Hotels and boarding houses	e-mail correspondence	26
Hotels	interview	4
Other Web sites	In flight analysis	51

METHODOLOGY

Customer Relationship Management (CRM) programs bring new concept in e-tourism which enhance the opportunities for interaction and a better understanding of both sides. This online interaction generates a whole range of new requirements for organizations, as they need to be accessible and available constantly. Although CRM programs are expensive to develop and maintain, tourism organizations have reduced their distribution costs and overhead costs using them. The reason for this lies in the fact that they can afford to pay less commission (or no commission in some airlines' case) to intermediaries and at the same time consumers do the manual work of data entry, instead of employees of the company.

Focusing on the usage of the ICT in different aspects of travel and tourism, as it was mentioned in this paper, we are analyzing the state of e-tourism in Novi Sad, the major city of Serbian province Vojvodina. For that purpose, we made interviews with all relevant stakeholders in tourism of Vojvodina and Novi Sad, we analyzed all important Web sites for the tourism in the region, we sent e-mails to all registered hotels and we made additional interviews in some of them, as it is presented in Table 1.

Our main idea is to put the strategic ideas on one side and the state of e-tourism on the other, focusing on the functionality, contents and behaviour of the present solutions. The difference between the development concept and the real state of e-tourism in Novi Sad will be specially presented in this paper.

Novi Sad as a tourist location

Novi Sad is the second largest city in Serbia and the capital of Vojvodina, the northern region in Serbia. It is situated on the Danube River between Budapest and the capital of Serbia, Belgrade, which is about 80 km from Novi Sad. The population of Novi Sad and its suburban settlements makes about 20% of the total population of Vojvodina. It is a popular regional, cultural and international fair centre.

The picturesque meander of the Danube with the Petrovaradin fortress on the high rock, main city tourist attraction, brought the nick-name "Gibraltar on the Danube" to Novi Sad. Museums, galleries, palaces, churches of different confessional groups, walkways, parks and monuments make Novi Sad one of the most important tourist locations in Serbia. More than 10 km of excellent beaches and even more fishing locations attracts tourist to stay longer in this real European city.

Novi Sad is the host to EXIT, the large and one of the Europe's most popular rock festivals which takes place 5 days each July. Film, music, children and the region's most important theater festival are also prove of Novi Sad well known hospitality.

Novi Sad is also important business center of Serbia. Main industrial and commerce centers are located in the city on the mouth of the magisterial Danube-Tisa-Danube canal into the river Danube. On the Danube banks large, modern university complex fulfills the picture of Novi Sad. Agricultural Fair with 2.000 exhibitors

from Serbia and 60 other countries take place each May in Novi Sad. There are also 22 other specialized events and about 400 workshops, symposia, seminars, round-table sessions, promotions of companies and products and press conferences hosted each year on the location of Novi Sad Fair.

E-tourism development concept in Novi Sad

The development of tourism, including e-tourism, in the city of Novi Sad is a top-down process, closely dependant of the initiatives and strategies accepted at the higher levels of governing (provincial and state levels).

On the highest position in our country we have the Strategy for information society development of the Republic of Serbia, which was accepted in 2006. In this document, completely in line with European standards and requirements in this area, we can find some basic elements for information society development in Serbia. This strategy is the basic document for the development of information society in Vojvodina as well.

In the Executive Council of the Province Vojvodina, which is the main governing body in Vojvodina, there are now 14 actual programs related to the economic development that are currently under realization. The Provincial Secretariat for Science and Technological Development (2008) is realizing two of those programs: "Program Support to the Transfer of New Technologies - BNT" and "E-Vojvodina". The realization of the program "E-Vojvodina", as one of the main programs that boosts the economic development of Vojvodina, was successfully continued in year 2009. One of the significant parts of that program, which is currently in progress, is the project "Strategy of the Development of the Information Society in the Province Vojvodina". The aim of this project is to create the survey of methodologies for development the information society in the EU, to analyze the existing state of the information society in Vojvodina and to define the development strategies and action plan with a list of strategic priorities in the following areas of the information society: e-Education, e-Government, e-Health, e-Business (including e-Tourism) and e-Banking.

City of Novi Sad is managed by the body named the City Council. City Council helps the Mayor with governing by coordinating between Cities parliament and the Mayor. It has 11 members who are elected by the Mayor and confirmed by the Cities parliament. Chairman of the Council is the Mayor. In the domain of economy and its part - tourism, the local government of Novi Sad has the following members:

1. A member of the City Council responsible for economy,
2. A head of the local government responsible for economy, and
3. A head assistant responsible for tourism.

While waiting for the finalization of the main strategic document in the domain of developing information society in Vojvodina ("Strategy of the Development of the Information Society in the

Province Vojvodina") with its Action plan and the full list of strategic priorities, subjects and terms for realization, the new local government (formed in 2008) starts the process of transforming some local institutions in the domain of city tourism. This transformation and the process of full activating the new formed institutions seems to be very slow and is not finished until now. At the end of year 2008, the City Assembly of Novi Sad agreed on introducing a new institution – Tourist Organization of the City of Novi Sad instead of former institution - Tourist Information Centre of Novi Sad, which will continue to work as a part of the new institution. Tourist Organization of the City of Novi Sad is responsible for:

1. The official presentations and promotions of Novi Sad tourist resources,
2. Visiting international fairs, exhibitions and other forms of international cooperation in city tourism, and
3. Answering the mails in the domain of city tourism.

Due to the fact that financial transactions are not in the domain of its responsibilities, there is not any kind of e-transactions, too.

For some unexpected technical problems, the new organization (Tourist Organization of the City of Novi Sad), which started working these days, did not activate and update the official site: www.novisadturizam.com.

Although there are strategic plans on the province level mentioned before, until now there aren't any kinds of strategic documents devoted to the development of e-tourism on the city level.

We found that the interest and the motivation for implementing e-tourism activities on the city level is still very poor, although the city of Novi Sad is rapidly becoming one of the main tourist resources in Serbia.

RESULTS

Our investigation among the relevant international tourist Web sites shows that Novi Sad is popular location for Web surfers: there are significant numbers of queries about Novi Sad through the Google portal: 12,100,000 with Novi Sad as key words, 3,940,000 for information about Novi Sad (more than 50% in English), 5,150,000 about accommodation, 6,770,000 for information about the central part of the city, 1,218,000 about tourism in Novi Sad, 1,955,000 for information about history of the city, 2,830,000 for forums about Novi Sad, 170,000 for restaurants, 571,000 for maps, etc. These numbers show us how many people are looking for all kind of information important for people who are coming to Novi Sad.

Cultural heritage of Novi Sad is significant, with excellent museums, galleries, temporal exhibitions and artistic happenings on the highest level in Serbia. Projects, which will bring this niche of cultural tourism to the broader public, are still waiting to be developed. The official Web site of the city presents a list of museums and galleries in Novi Sad with unstructured information. Other official sites are also suffering of the lack of information. In the meantime, there are some minor efforts to bring information about the part of that heritage to the Internet population (like Museum of Vojvodina and

Museum of Contemporary Art). On the other hand, private galleries which are selling paintings are much better presented on the Internet.

Official tourist presentation of Novi Sad brings the list of 15 hotels or hostels and 11 small boarding houses with e-mail addresses, where 2 e-mail addresses are wrong. There is also a hotel which is at least 25 km from Novi Sad without any information about that fact. We also found Hotel Putnik on that list, destroyed in a fire more than 2 years ago. We found a lack of sightseeing information, while link called 'tourism' leads to some places in Novi Sad neighborhood. Official site of Novi Sad has a lot of wrong or too old information; religious information takes the most of the place in this Web site, while the only fully adequate group of information is about the local government. The link for map of Novi Sad doesn't get any information. This Web site includes the link for www.visitSerbia.org reservation system. A group of 14 Novi Sad hotels, apartments and villas made their own portal with links to these hotels. We can find also the other sites with the similar information.

Geographic information systems (GIS) are technological tools for comprehending geography and making intelligent decisions implemented in the different kinds of maps (DeMers, 2008). The map of Novi Sad on this official tourist presentation site is small, very old (information about Novi Sad bridges is older than 6 years and incorrect). The main information on that map includes signs for hotels, churches and toilets. Our conclusion is that this map is out of GIS development trend and that it can't be used by tourists. The same conclusion could be taken about all city maps that were found in this investigation.

Novi Sad is represented by only 1 hotel in Serbia Tourist Guide, while Tourist Organization of Serbia has a pretty small amount of information important for tourists. Accommodation list has only e-mail addresses without links to the hotels. We found on that list a destroyed Hotel Putnik again. The site www.visitSerbia.org implemented reservation system and we found 9 accommodation objects in Novi Sad included in that on-line reservation system, while other 2 hotels are presented with e-mail addresses on that Web site.

Virtual Tourist brings information about hotels without any possibility for booking, while the only link to the hotel in Novi Sad is not working. Limba, the other reservation system makes reservations for that hotel correctly, while HolidayCityEurope and CatalogueHouse21 include on-line reservations for Hotel Gymnas. Booking.com includes 4 hotels from Novi Sad in their on-line reservation system.

We sent e-mails with the explanation about our research to 15 hotels in Novi Sad, looking for information about reservation system in their hotel. After a while, we received information from just one hotel the same day and from the other one in a week, while all the other hotels did not answered at all. Our investigation in some

of the hotels showed that foreign tourists are using dominantly Internet for reservation, while domestic tourist still prefer telephone or fax for the same purpose.

We also found that there is not a single Web site with the information important for tourists in Novi Sad that could be used by wireless mobile devices.

If we compare the state of e-tourism in Novi Sad and two important cities in the Danube region, Belgrade and Budapest, with the strong traditional influences on Novi Sad, located on 80 and 280 km from Novi Sad (respectively), we can find next situations.

As Belgrade is the capital town of Serbia, where Novi Sad is the second largest town, it has very similar situation in e/tourism like Novi Sad. Our in depth analysis of Web sites showed us that the usage of hotel reservation systems is almost the same, presented sightseeing information about Belgrade are on the lower level, tourist maps are slightly better on Belgrade's sites, while other interesting tourist information (culture events, restaurants, sport events etc) are much better presented on sites with the information about Belgrade. On the other hand, e-tourism in Budapest is on the higher level in all mentioned categories. Our conclusion for that fact is the longer and higher level of tourism in Budapest, where demands of millions of tourists every year found the answers that are well presented on the Internet infrastructure.

Conclusion

Strong penetration of Internet technologies in Serbia doesn't last too long. Top-down strategy of the development, which comes from the EU expert bodies, takes too long. Among the recommendations of European Movement in Serbia we could not find anything that concerns with e-tourism in Serbia. Strategic documents about the development of Serbian e-society are present or still under construction. The idea of information society is coming slowly to the surface, but all state and local institutions still can not understand the role of those new concepts in their environment.

The bottom-up development of e-tourism activities is the only one which is present at this time. The most of that are private initiatives of the hotels or galleries owners, who can easily find this new value offered by the Internet infrastructure. We must say that the level of their solutions is not satisfactory. The lack of proper education and information about ideas and benefits of e-tourism concepts still takes the most of tourist stakeholders out of these new solutions.

We found a lot of wrong, old or not adequate information on official sites. All main constraints of acceptance models could not be analyzed in these selected Web sites that are present in the practice. The private sector does not have enough interest for digital solutions in this area and there is a lack of proper information. All maps of

Novi Sad are too old and not useful for tourists. But we also found that the first on-line reservation systems, national and international, are taking part in Novi Sad tourism. International community requests implementation of ICTs in travel and tourism sector and that is the reason why the first examples of their implementation are found.

In the final conclusion of this research we can state that only international market requests can bring expansion of e-tourism in our city. Keen and Mackintosh (2002) created the statement which they called Braudel Rule: "Freedom becomes value when it changes the limits of the possible in the structures of everyday life". That is exactly what is happening in the e-tourism world – the development does not depend on some strategic documents and national stakeholders. Dominant influence comes from the international market, whose demands must be considered if we try to create new value changing limits of the possible in the structure of everyday life. The first steps maybe are not adequate, but they are leading to the new initiatives and values in the e-tourism society in this region.

REFERENCES

- Ajzen I (1991). The theory of planned behavior. *Organ. Behav. Hum. Decis. Process.*, 50(2): 179-211.
- Bhat SS, Milne S (2008). Network effects on cooperation in destination Web site development. *Tour. Manag.*, 29 (6): 1131-1140.
- Buhalis D (2005). *eTourism: Information Technology for Strategic Tourism Management*. Harlow: Prentice Hall.
- Collan M, Tetard F (2007). Lazy User Theory of Solution Selection. In: *Proceedings of the CELDA 2007 Conference, Algarve: IADIS*, pp. 273-388.
- d'Angela F, Go FM (2009). Tale of two cities' collaborative tourism marketing: Towards a theory of destination stakeholder assessment. *Tour. Manag.*, 30 (3): 429-440.
- Davis FD (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Q.*, 13 (3): 319-340.
- Davis FD, Bagozzi R, Warshaw P (1989). User Acceptance of Computer Technology: A Comparison of Two. *Manag. Sci.*, 35(8): 982-1003.
- DeMers MN (2008). *Fundamentals of Geographic Information Systems*. 4th ed. Chichester: John Wiley, Sons.
- Duff A (2002). *E-Tourism in England*. London: English Tourism Council.
- Erkus-Ozturk H (2009). The role of cluster types and firm size in designing the level of network relations: The experience of Antalya tourism region. *Tour. Manag.*, 30(4): 589-597.
- Guo Y, Salvendi G (2009). Factor structure of content preparation for e-business web sites: results of survey of 428 industrial employees in the People's Republic of China. *Behav. Inform. Technol.*, 28(1): 73 - 86.
- Ha HY, Perks H (2005). Effects of consumer perceptions of brand experience on the web: Brand familiarity, satisfaction and brand trust. *J. Consum. Behav.*, 4 (6): 438-452.
- Hadžić O (2004). *Tourism and Digitalization of Cultural Heritage*. Pregled NCD, 5: 74-79.
- World Travel, Tourism Council [online]. URL <http://www.wttc.travel/eng/Home/>.
- Keen PGW, Mackintosh R (2001). *Freedom Economy*. New York: Osborne/McGraw-Hill.
- Kim J, Lee J, Choi D (2003). Designing emotionally evocative homepages: an empirical study of the quantitative relations between design factors and emotional dimensions. *Int. J. Hum. Comput. Stud.*,

59: 899-940.

Kujala S (2008). Effective user involvement in product development by improving the analysis of user needs. *Behav. Inform. Technol.*, 27(6): 457 - 473.

Liao H, Proctor RW, Salvendy G (2008). Content preparation for cross-cultural e-commerce: a review and a model. *Behav. Inform. Technol.*, 27 (1): 43 - 61.

Liu SQ (2005). A Theoretic Discussion of Tourism E-commerce. *ACM Int. Conf. Proc. Series*, 113: 1-5.

Republic Statistical Office – Republic of Serbia (2008). Usage of ICT in Republic of Serbia. Belgrade: Annual report.

Rogers EM (2003). *Diffusion of innovation* 5th ed. New York: The Free Press.

Sharma PD, Delacy T (2000). National online tourism policy initiatives for Australia. *J. Travel Res.*, 39(2): 157-162.

Sheldon P (1997). *Information Technologies for Tourism*. Oxford: CAB. Provincial Secretariat for Science and Technological Development (2008). *Activities in 2008*. Novi Sad: The Executive Council of the AP Vojvodina.

Stewart T (2009). Usability evaluation. *Behav. Inform. Technol.*, 28 (2): 99-100.

The European e-Business Report (2005). *A Portrait of e-Business in 10 Sectors of the EU Economy*. Luxembourg: Office for Official Publications of the European Communities.

Venkatesh V, Davis,FD (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Manag. Sci.*, 46 (2): 186-204.

Walker RH, Craig-Lees M, Hecker R, Francis H (2002). Technology enabled service delivery – An investigation of reasons affecting customer adoption and rejection. *Int. J. Serv. Ind. Manag.*, 13(1): 91-106.

Wang Y, Yu Q, Fesemaier DR (2002). Defining the virtual tourist community: implications for tourism marketing [online]. Elsevier Science Ltd. URL <http://www.sciencedirect.com/science>.