

## Information and Communication Technologies in tourism

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### SUMMARY

*Technological progress and tourism have gone hand in hand for years. Information communication technology (ICT) and tourism are two of the most dynamic motivators of the emerging global economy. Tourism can be considered as one of the most profitable sectors of the Hungarian economy, and in rural areas it is often the only successful economic activity.*

*Development of ICTs and the expansion of the Internet have changed dramatically in the past few decades. This process is noticeable in Hungary, as well. Platform of tourism increasingly get to the Internet nowadays, which is vitally important because tourism is an information-intense industry. Therefore, it is critical to understand changes in technologies in order to maintain the crucial role of this sector in the Hungarian economy.*

*The aim of my study is to support the significance of tourism in Hungary and especially in the North Plain Region with the help of statistical data. Then, I try to show how ICTs appear in this sector and emphasize the role of these tools with some concrete examples.*

### INTRODUCTION

Tourism has developed into one of the world's most important industrial sectors, growing faster than the world's gross domestic product for the last 30 years. According to World Travel and Tourism Councils' prediction (WTTC) tourism contribution to the GDP will be 4.2% directly and 9.6% together (direct, indirect) in 2011. This sector's contribution to the labor market will be 99 million people directly and 260 million people all together in the same year. (WTTC, 2011)

In the past years – except for the drop caused by recession – tourism turned into one of the propulsive industries in Hungary. Therefore, in order to make our guests desire to return to Hungary and to entice others to visit Hungary too, we – who live here – should provide tourists with an appropriate level of services. Among services, one of the most important areas is the information service.

Development of Information and Communication Technologies (ICTs) and the expansion of the Internet penetration have changed dramatically in the last few decades. Tourism platforms are a growing phenomenon on the Internet, and this resource has substantially altered the tourism-related information search and destination selection process. In consequence of these changes, new technologies have been adopted into the tourism industry (hotel information systems, Geographical Information Systems (GIS), Internet, web technology, mobile technology) and this trend is likely to continue into the future. In recent years, social media websites and searching have become an increasingly dominant mode in travelers' use of the Internet. Because tourism can be considered as one of the most profitable sectors of the Hungarian economy, and in rural areas it is often the only successful economic activity, it is vital to make Hungary much more attractive with the help of developed ICTs.

### THE SIGNIFICANCE OF TOURISM IN HUNGARY AND IN THE NORTH-PLAIN REGION

The last available satellite accounts of tourism (SAT) were made for 2007. According to these, the education of typical sector in tourism correlated to that of national economy was 5.3%, their gross added value meant 5.9% contribution to the whole added value of national economy. (KSH, 2010a) Tourism has been one of the most significantly developing sectors of economy since 2000- 2001. In the globalizing world, the economy of tourism is such a sector that can be competitive at international level, as the facilities of our country suit the products of tourism, for example:

- One of Hungary's top tourist destinations is Lake Balaton, the largest freshwater lake in Central Europe, with a number of 1.2 million visitors in 2008.
- The most visited region is Budapest; the Hungarian capital attracted 3.61 million visitors in 2008.
- Hungary was the world's 26<sup>th</sup> most visited country in 2007. The Hungarian spa culture is world-famous, with thermal baths of all kinds and over 50 spa hotels located in many towns.

Our Region, the North – Plain Region, has the third place with a 10.4% share in the gradation of the region, which is eminent, especially as this region involves the most high and dry areas in the country. Other regions contributed with a somewhat lower rate to the gross added value in 2007. In 2009, the utilization in the region was 20% or third in the gradation of all regions. There is some great enticement for the tourists in the two

regions that have surpassed Hajdú – Bihar: in Central – Hungary (34%) the capital and in West – Transdanubia (28%) Lake Balaton. (KSH, 2010b) In recent years, the rate of domestic and foreign guests per quarter has not changed significantly in the region. In 2009, 56% of foreign guests and 44% of domestic guests loved to choose hotels with higher standards. The rate of domestic guests was between 63-85%, while the rate of foreign guests was between 8-36% at quarters with lower standards, such as pensions, tourist hostels and camp-sites. (KSH, 2010c) In 2009, this region had the 4<sup>th</sup> best (8%) in foreign circulation in the gradation of regions. Our region is surpassed by the economically more developed region of Central – Hungary (43%) and region of West – Transdanubia (25%). Since 2004, guest circulation has grown by 4% in our region. (KSH, 2010a) Most foreign tourists have visited Hajdú – Bihar County while Szabolcs – Szatmár – Bereg County has become only the second among counties. This is an amazing result, as this county borders on three countries, so most foreign tourists guests are expected here. However, this result is possibly due to the popular spa and medicinal baths in Debrecen and Hajdúszoboszló, which are the main attractions of Hajdú – Bihar County. 6.8% of foreign guests have come from the member states of the European Union, but visitors also arrived from Africa, Australia and America to the region. After the investments of service of quarters and hospitality in the national economy, the sector had boomed in previous years. In 2009, the degree of investments was 31.2% less than in the previous year, while the whole national economy had only an 8.6% decline. This also means that the rate of investments in this sector had fallen back to 0.9%, which was the level of 2004. Since the beginning of this decade, most of the investments have been in connection with developing wellness and medicinal hotels and can be seen in segment guest circulation and the rise in capacity. (KSH, 2010a)

As we see tourism play an important role in the North – Plain Region and in the whole country, it is essential that developed ICTs be used in the tourism sector. Unfortunately, this type of research is not available in Hungary, so it is difficult to give an up-to-date example. Next, I represent some of the most popular ICTs with particular regard to social media.

### ***INTERNET PENETRATION***

The growth of online network participation is supported by globalization, increasing growth of high-speed and high-bandwidth Internet access around the world and the widespread of computers. Internet and tourism look like an ideal combination because during come to a travelling decision and organize a trip tourists have to collect a lot of information to be able to make an appropriate decision. The Internet has the great advantage of global accessibility. Tourism suppliers can efficiently provide information to potential tourists all over the world. This kind of examination is important, because through the spread of the Internet, the proportion of travels and holidays reserved thereby has shown steady growth. Currently, there are 1.46 billion Internet users in the world, which is three times greater than in 2000. In Europe (EU-27), Internet access is above 60 % of the whole population, which is naturally meant to be an average (Internet World Stats, 2009).

According to recent findings of the TNS-NRC Interbus and TNS Visitor Media Research, computer and Internet access in Hungarian homes have produced significant growth within the last five years – 53% of the households has computer and 41% of the households is connected to the Internet in Hungary in 2010. In Hungary, Internet penetration was 62% in 2010 (Internet World Stats, 2010). The Internet is still considered a 'youngish' medium, which is supported by the fact that while 84 per cent of people between 15 and 24 years of age use the Internet regularly, in the 25-34 age group, the proportion is merely 67%. In the over-50 age group, the ratio is significantly lower than the average – the penetration is only 21% (NRC, 2010).

### ***ICT AND TOURISM***

Travel and holidays are one of the most expensive items purchased regularly by households around the world, and represents a significant proportion of individual's annual budget. Internet coverage has changed the behavior of the tourism consumer considerably. Customers seek travel-related information and make online purchases (e.g., online air-ticket bookings, online room reservations) themselves, instead of relying on professional travel agencies to assume this process for them.

The information society has made tourism a highly information-intensive industry, as ICTs have a possible impact on tourism enterprises. The role of ICT in the tourism industry cannot be underestimated and it is a crucial driving force in the present information driven society. It has provided new tools and enabled new distribution channels, thus creating a new business environment. ICT tools have unburdened business transaction in the industry by using network with trading partners, distribution of product services and providing information to consumers across the world. Furthermore consumers are also using Internet to obtain accurate information and plan their trip and travel, so that is why information is the key element in the tourism industry. Searching information is a significant part of the decision making process and it was revolutionized as a result of the Internet and the computerization. Due to the role of information in tourism, it is vital to understand changes in technologies and consumer behavior that impact the distribution and accessibility of travel-related information (Buhalis and Law, 2008; Shanker, 2008).

## NEW TECHNOLOGIES IN TOURISM

### Travel 2.0

Before revealing the meaning of Travel 2.0, we should get acquainted with the concept of Web 2.0. According to Buhalis and Jun (2011), it is “*the second-generation of Internet-based services that let people collaborate and share information online in perceived new ways such as social networking sites, blogs, wikis, video sharing sites, web applications, and communication tools*”. A Web 2.0 site users can interact and cooperate with each other as creators of user created content (UCC) in a virtual community and create their own content (user created content, UCC), in contrast to websites (Web 1.0) where users are limited to the passive contemplative of content that was created for them (Gyarmatiné, 2009).

Travel 2.0 is a term that represents the extension and customization of the concept of Web 2.0 into a form that applies to the world’s largest industry: travel and tourism. Travelers are becoming increasingly more interested in seeking the opinions and reviews of their fellow travelers instead of professional travel advice (Gyarmatiné, 2009).

### Social media

Development of the Internet, as well as the constant evolution of society has lead to understand new forms of communication. Conventional types of media are not effective nowadays, because of the fact that consumer has changed. The new consumer is more sophisticated so he needs and requires more specialized media where he can take information from. This new type of media is called Social Media.

In my opinion, Kaplan and Haenlein (2010) give an excellent brief definition for this term: social media is a group of Internet-based applications with the concept of Web 2.0, which allows the creation and exchange of user-created content (video clips, photos, texts etc.).

Social media channels (web-based) have experienced phenomenal growth and influence over the last few years and provide a platform where consumers share video clips, photos, music and texts to express their opinions and experiences of products and services. This raises major questions for destination management organizations, hotels and travel firms, when consumers resort to instantly available, online and unmanaged information to overcome any perceived risk they have in choosing destinations, accommodation and travel suppliers and share experiences of travelling (Murphy et al., 2010).

There are hundreds of platforms where Internet users can interact and share information with other users, starting from blogs, forums, wikis, video and photo sharing to social networks, virtual communities, chat rooms and pod-cast (Universal McCANN, 2008).

The fact that the tourism industry does not sell simple products, but experiences, is very important. Experiences of tourists, which are very dependent on several factors (emotions, feelings, perception and even, on demographic and sociological factors), need to be expressed to a third people. This might occur face to face or via the Internet and Social Media. In addition, people tend to trust more in experiences lived by other consumers instead of the information produced by the owners of businesses.

### Travel Blogs and Forums

A blog is a type of website or part of a website. Blogs are usually maintained by an individual with regular entries of commentary, descriptions of events, or other material such as graphics or video. Blogs allow users to express themselves about different topics of interest, might be someone’s experiences, opinions or thoughts. Travel blogs have the same meaning but the topics of these blogs are about travel experiences. Primarily, online tourism forums provide information for tourist to tourists about tourism products and services in order to provide orientation (Grotte, 2010).

Gretzel and Yoo (2008) have shown that “*reviews play an important role in the trip planning process for those who actively read them. They provide ideas, make decisions easier, add fun to the planning process and increase confidence by reducing risk making it easier to image what places will be like*”. Accordingly, on all the platforms where tourists can express themselves, they will be used by other tourists to collect information from in order to get ideas and reduce the complexity of the decisions making process (Xiang and Gretzel, 2009).

An interesting study has shown that 56% of American tourists seeking for opinions of travelers who have visited the destination before during the booking process of their accommodation. In 2008, another survey claimed that user created content is used by 40% of online travel researchers to determine whether they visit a destination. Within this figure, 40% of ratings were the most popular (used by 58%), followed by reviews and recommendations (49%). Next come user created photo content (18%) and friend’s social networking websites (18%). Other travelers’ blogs were consulted by 12% and user generated video by 5% (Highland business research, 2008)

Király (2011) refers to a study made by Skyscannar, which examined that how social network sites impact travelling attitudes. The result was interesting which claims that half of the participants select their next holiday

destination by their friends' shared photographs. Furthermore, this study also reveals that 88% of the users always look at their friend's holiday pictures. Online photo sharing attitudes were examined by Lo et al. (2010) in Hong Kong where 89% of travelers took pictures during their pleasure trips and 42% of these people share those pictures in different mediums. Murphy et al. (2010) examined the online sharing attitudes in general (video, text, photo etc.). 40-50% of the respondents frequently share texts and pictures while only 3% post videos. Respondents are more likely to share content on their own social media website than on a media sharing or review site.

All in all results of different studies show the importance of ICTs (social media) in tourism. These offer opportunities for tourists to express themselves, share contents, ideas and experiences which other tourists may use as a reference in their travel planning, which is greatly appreciated among tourists due to the high needs of information which they require.

## CONCLUSION

The phenomenon of the Internet has completely revolutionized tourism, and thus tourist behavior, as well. Recently, static web pages have given way to more interactive web pages; which have led to the appearance of social media as an information web-based platform where users can share ideas, thoughts, pictures, experiences and so on. This milestone in the Internet world has implied a new way of communication, which due to the high requirements of information that the tourism industry has, it has completely stirred up tourist behavior in their search for information.

There is considerable literature about the system, typology, motivation and the impact of tourism. Examination of the relationship between tourism and ICTs is being evolved in the world but in Hungary very few scientific researches were publicized in connection with this topic. For this reason the main purpose of my Ph.D. research is to create a continual research that focuses on the impact of digital media and technology on tourism. Furthermore, I would like to analyze how tourists use ICTs along their decision-making process of tourism product. Other major objective of my research is to examine the adoption of ICTs by tourism organizations in the North – Plain Region and in Hungary, as well. In addition, the aim of my study is to determine whether the North-Plain Region tourism businesses could respond to the changing consumer demands (Social Media) and collect the barriers and benefits of technological adoptions. Finally, I would like to examine the opportunities of these new technologies in the evolving numbers of destination organizations in Hungary.

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