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43THE USE OF THE **NEW INFORMATION AND COMMUNICATION TECHNOLOGIES**

(NICTs) AT THE LEVEL OF BUSINESS IN THE TOURISM INDUSTRY FROM ROMANIA AND THE CEE-EU COUNTRIES Abstract At present, the world economy is more and more submitted to the influences exerted by the information and communication technology, and tourism,as a stand-alone economic sector, which is based on the intensive use of information, is not different. All the tourism oriented organizations experience the greater and greater impact of what are known today as the new information and communication technologies (NICT). In this context, we considered appropriate to make a study on the degree of use of the new information technologies

31in Romania and the **CEE-EU countries,**

countries reunited under this title (CEE), after the proposal of

51the Organization for Economic Cooperation **and Development (OECD), to**

which

1we chose to add the EU **ending, in order to clarify from the** beginning **that we refer to**

the member states of the

4European Union, from the **Central and Eastern Europe.** In order **to**

ensure the comparability of the results, we used the data provided by EUROSTAT, through the European Commission reports on the NICT use at the level of business from the tourism industry from Romania and the

50other countries in the region. The analysis **results show**

that Romania and Bulgaria are the countries with the biggest deficiencies regarding the implementation of the new information and communication technologies at the level of the tourist accommodation establishments and food services. As a consequence of these results, the study presents, finally, a series of conclusions and recommendations for the decision makers in the tourism field. Key words:

25Information and Communication **Technology (ICT),** New **Information and Communication Technologies**

(NICT), tourism, Romania, CEE-EU countries. JEL Classification: L83

I.INTRODUCTION Each innovation in the

41**Information and Communication** Technologies **(ICT)** sector may **change** exponentially **the** strategy **of** the **tourism**

organizations to increase the competitiveness in the external markets. The spread of the mobile phone networks and, implicitly, the intelligent phones, simultaneously with the increase of the access rate to the high- speed internet, and with the change of the online communication principles, from the one-to- many version to the many-to-many one, were on the basis of the

27**development of the** new **information and communication technologies** (NICT), which revolutionized **the**

tourism business models and not only. We refer both to the internet and its specific instruments and to the new mobile applications, social networks, reservation platforms, modern software of hotel management, global distribution systems. Tourism is a sector which is intensively based on information and communication, that is why, it significantly benefitted from the appearance and development of NICT. Today, the new information technologies represent a key-factor for the developed destinations, but especially for the developing ones in the organization and promotion of their tourism offer on the international markets directly permanently interacting with the consumers and distributors of tourism services. At the same time, the NICT applications supported the efficient functioning of tourism organizations, because they accelerated the management procedures of the activity and, implicitly, the economic operations carried out. Therewith, the appearance and development of the new information technologies allowed the tourism organizations to benefit more from the available resources, by promoting the tourism offer in the international markets, but, at the same time, generated many challenges, especially regarding the necessity of reorganizing the activity and making investments. In fact, the promotion and distribution of information and tourism services in the online environment is the main field in which the technological innovation had the greatest impact on the tourism enterprises. Practically, the appearance and development of the new information technologies allowed the tourism enterprises to directly provide for an increasing

33**number of consumers at a relatively low cost, and to interact with**

these, and with other producers and distributors of tourism products and services. The increasing number of consumers who use different information and communication technologies in order to plan their holidays represents a major stimulus for destinations to develop their own offer and the promotion strategies according to these. Thus, we can say

35**that the** application **of** the **new information and communication technologies** which support **the tourism**

activity became crucial for surviving, and especially for the development and increase of competitiveness. It's worth mentioning that tourism is an industry made of both tangible elements like hotels, amusement and transport enterprises, public food services, and intangible elements, like rest, relaxation, culture, adventure, etc. The heterogeneous and immaterial character of the tourism services explains the importance and the relevance of NICT to neutralize the intangibility of tourism services and, eventually, to obtain competitiveness on the market. The change that NICT imposed on tourism had an impact difficult to estimate exactly, starting with the moment when these began to be able to revolutionize all types of operations in the field. In other words, the development of NICT facilitated the macroeconomic performance and the growth of businesses by increasing the work productivity, enlarging the markets, lowering the costs

and by innovating. If we relate to all the industries, including tourism, we will find that the most recent results show that, in Europe, the Internet access rate in enterprises was 97% in 2015, and seems to reach a saturation level. In the hospitality sector the Internet access is available for 99% of the enterprises with 10 employees or more. The business connectivity improved very much, especially as a consequence of the large-scale absorption of mobile telephony and Social media, which allowed many enterprises to have a web presence. In these conditions, this research approach is about the idea according to which, as a logical consequence, NICT can be efficient instruments even for the developing countries, in order to promote and distribute their tourism offer and to recover from the possible unbalances in comparison with the developed countries. Despite the specific challenges to adopt and use NICT in the developing countries, the tourism enterprises are open to many opportunities, especially regarding the access to international markets and gaining a competitive place in comparison with the competition. II.THE ANALYSIS OF THE SPECIALIZED LITERATURE The

> 49**information and communication technology** does not **have a** universal definition, especially **in the**

conditions in which the concepts, the methods and applications involved are in progress. The

> 22**Oxford Dictionary defines** the **information technology, IT, as** being **the study or use of systems (especially computers and telecommunications) for storing, retrieving and sending information (Oxford**

Dictionary, https://en.oxforddictionaries.com). It's obvious that ICT represents and extension of the concept of information technology and refers to the integration of telecommunications which, along with computers, have the role to facilitate obtaining, retrieving, storing and sending information. The same approach has Scott who considers in his own doctoral thesis that ICT includes computers and telecommunication technologies with a role in retrieving and sending information (Scott, 2013, p.1). Most studies

> 37**on the impact of information** and **communication technologies on the** activity **of**

economic entities, approach ICT as a homogenous capital. Nevertheless, in Bloom's, Garicano's, Sadun's and Van Reenen's opinion (2014), these technologies have at least two distinct components: first, through the possibility of storing and retrieving data, information becomes cheaply and faster accessed, and secondly, by spreading ICT, the economic agents consider that it's easier to communicate one with another. Globally spreading the mobile telephony networks and, implicitly, the subsequent increase of the number of mobile terminals, at the same time with the development of the internet access and its use on a large scale had a major impact on research and development. This was on the basis of developing modern technologies that we include today in NICT- New Information and Communication Technologies. The appearance and development of new information technologies represent in our opinion, a distinct phase in the history and evolution of ICT and is broadly characterized by the transformation of virtual communication from an unidirectional one-to-many form, to a pluri-directional many-to-many form. Thus, communication has become faster, easier and more efficient because of the technological progresses in the last years. Intelligent mobile phones (smartphone), wireless technology and the Internet, Wi-Fi, Social Media with all its elements (social networks, blogs, micro blogs, podcasts and video sharing platforms, etc.), virtual reality are only some examples of new technologies which allow the communication and information and which exerted a major influence including on tourism industry around the world. The web site and its implications in tourism are important themes in the recent specialized literature because many authors wrote on this theme. A reference work is that of

> **38** **Law, Qi and Buhalis (2010) and** represents **a** review **of the**

published studies on the theme of assessment methodologies of web sites within the period 1996-2009. The same theme is tackled by Morrison, Taylor and Douglas work (2005), Ip, Law and Lee (2011), respectively Plaza (2011). More recent works by some authors like Sun et al. (2017), Pradhan (2013), Bastida and Huan (2014) focus, besides the assessment methodologies of the sites, on other elements like the impact of a web site design on the perceived image on the tourism destination on the whole-

> **42** **Rodriguez- Molina, Frias- Jamilena** and **Castaneda-Garcia (2015)** or **the**

influence exerted by a web site on the selection process of the destination that will be visited by tourists - Chung et al. (2015).

> **46** **On the other hand, Social Media** represented, undoubtedly, **the** natural evolution **of**

ICT and the transformation of one-to-many communication, specific to read-only sites, into a many-to-many communication, specific to social sites, micro- blogging and blogging platforms, video-sharing sites, etc (Nedelea, Costea, 2016; Stanciu, Costea, 2012). Zeng and Gerritsen (2014) state that

> **32** **Social Media plays an important role** from **many** points **of** view of **tourism, especially in** searching for **information,**

promoting tourism, interaction with consumers regarding their behaviour of making decisions. Social Media as tourism marketing instrument may increase very much the reputation of a destination and, more than that, may convince the decision factors that it can constitute an integral part of the general strategies of development of the destination (Kiráľová, A., Pavlíčeka, 2015). Specialized literature presents Social Media implications and, especially, the most popular social network- Facebook- in increasing the competitiveness of a tourism organization or even a tourism destination on the whole, especially from the point of view of the role in their marketing activity. Among the authors interested in this field of research, we mention: Mariani, di Felice and Mura (2016), whose work explores the way in which Italian organizations of management of destination use Facebook strategically in order to promote certain tourism destinations,

> **39** **Stankov, Lazic and** Dragicevic **(2010)** or **Zouganeli, Trihas and Antonaki (2011)**

who try to identify how many national tourism organizations from Europe are present on Facebook or Park et al. (2016) who studies the degree of using Facebook by the local authorities from South Korea in order to develop tourism. Of course that a determining factor of the expansion of NICT was that of opening the telecommunication markets, but also of the appearance and development of wireless technologies in the recent years. The Wireless technologies together with smart phones, and other communication devices exert a great influence on different industries, including tourism. By far the most used technology is that made available by smart phones which revolutionized greatly the way of communication and sending information. The concerns of the specialized literature for the

40 **study of the** implications **of** the new **information and communication technologies in**

the economic activity are not limited here. Another topic of increasing importance is that of using in cloud technologies. NIST

8 **(National Institute of Standards and Technology) defines** the concept of **cloud computing as** being **a model for enabling on demand network access to a shared pool of configurable computing** sources **that can be rapidly provisioned and released with minimal management effort or service provider interaction.** In other words, **it is a**

service through which the client obtains a series of virtual capacities of retrieving, respectively storing that they may access online and which do not present a physical form (Mell, Grance, 2009, p.50). The evolution of the cloud computing model during the last years is one of the most important progresses in history. Consequently, even if now there is a series of definitions of the concept, no one captures all its key characteristics (Marston et al, 2011). Tourism, like any other economic branch of services, has two components: an information one and a physical one, but we know that many times in tourism the information component is dominant. As an activity intensively based on information, tourism suffers many changes, many times radical, proving to be a favourable environment for implementing the new information technologies (Koo et al., 2015; Law, Buhalis and Cobanoglu, 2014).

27 **In this context, the** importance **of the** new **information technologies**

is also emphasized by some international organizations which made special reports through which they analysed thoroughly the present stage of adopting NICT and their influence on the general economic competitiveness, or even the tourism activity from different countries. It's, for example, the case of the World Economic Forum, which proposes a methodology of determining the Tourism Competitiveness Index at the level of 140-141 states, one of the pillars of calculus being the stage of ICT implementation, or the European Commission, which emphasizes that the importance of ICT/ NICT is their capacity to create a better

47 **access to information and to facilitate** efficient communication. In **the** context **of**

growing the importance of this phenomenon within the world economy, many organizations that promote ICT/NICT in the emergent and underdeveloped countries were created, because there is the apprehension that the growing technological progresses will lead to the intensification of economic differences (searchcio.techtarget.com). III.METHODOLOGICAL ASPECTS In the conditions in which NICT revolutionized greatly the tourism industry around the world, we considered appropriate to make a study on the general degree of absorption of NICT at the level of tourism operators from Romania and the CEE-EU countries, countries reunited under this title (CEE), after the proposal of the

31 **Organization for Economic Cooperation and Development** (OECD), **to**

which

Romania and Czech Republic, Croatia,

In order to compare the results, we analyzed, processed and interpreted the data provided by EUROSTAT through the European Commission reports on the use of NICT at the level of businesses in the tourism industry, and especially the data from Digital Scoreboard- a general board proposed by the European Commission, which thoroughly represents data regarding the general level of penetration of

European Union countries, for the year 2016. From the multitude of existing data, we made a selection of those which focus on the degree of use of NICT at the level of the tourism activity from the 11 states submitted to analysis. One must mention that the analyzed and interpreted data refer to tourist accommodation establishments with public food function, with more than 10 employees. At the level of the countries from the CEE- EU region, we tried to find: ? The share of tourist accommodation establishment and food services that have a fixed internet connection; ? The share of tourist accommodation establishments and food services that offer mobile devices to the employees; ? The share of tourist accommodation establishments and food services that make online sales and, where applicable, their volume, total turnover; ? The share of tourist accommodation establishments and food services that hire ICT specialists; ? The share of tourist accommodation establishments and food services that outsource the ICT service; ? The share of tourist accommodation establishments and food services that offer training to the employees in order to improve the ICT skills; ? The share of tourist accommodation establishments and food services that have a web site; ? The share of tourist accommodation establishments and food services that use Social Media; ? The share of tourist accommodation establishments and food services that use Cloud Computing; ? The share of tourist accommodation establishments and food services that pay advertising campaigns on the internet; accommodation sector with internet access use Social Media, as communication and promotion environment of the services carried out. This means that adopting Social Media is almost two times bigger in this sector than in the whole economy (36%). The EUROSTAT data show that two out of three accommodation establishments active in Social Media use this vector for marketing purposes (ec.europa.eu). Regarding the tourism activity, according to the data provided by the European Commission through Digital Scoreboard1, Romania is situated on the We preferred to emphasize the comparative analysis with the neighbouring country Bulgaria, because

geographical similarities. The general hypothesis from which we start is that, taking into account that the progress of information and communication technologies was a little bit late in the South- East region of Europe, Romania and Bulgaria are the countries that register among the weakest results regarding the general degree of using NICT in tourism activity. Moreover, we expect that the tourist entities from Bulgaria understand better

> **26the role of** the **new information and communication technologies,**

compared to the tourism operators from Romania. Being, at the same time, the adepts of the idea according to which NICT represent both a direct factor of increasing the competitiveness, and an enlivening factor with influence on the other determinants of tourism competitiveness, we consider that one of the possible explanations of lower competitiveness and, implicitly, lower conversion of tourists that the Romanian hotels in comparison with the Bulgarian ones have - disparity demonstrated by Costea, Hapenciuc and Arionesei (2016) - is represented by the minimization of

> **26the role of** the **new information and communication technologies by**

the private tourism operators and public authorities, equally. IV.RESULTS AND DISCUSSIONS In the year 2015, 95% of the total of tourist accommodation establishments from the European Union had a web site, in comparison with 75% registered at the level of all economic sectors from the E.U.

> **12In all** the **member states, this** rate **was** bigger **in the accommodation sector than in the whole economy. In only three member states**

the registered values were lower: Bulgaria (80%), Latvia (88%) and Romania (77%). During the year 2014, 63% of the operators in the accommodation sector received online orders, while, at the level of the whole economy, the percentage reached 19% (ec.europa.eu). In addition to the classical business functions made with the help of the information and communication technologies, a recent study of EUROSTAT shows that more enterprises use Social Media. Approximately 71% of the enterprises in the penultimate place (with 67,1%), before Bulgaria (with 65,6%) from the point of view of the share of the tourist accommodation establishments and food services that have a fixed internet connection in the year 2016 (Figure no. 1). At the opposite end, Slovenia is the country in which 98,8% of the accommodation establishments and public food services are connected to the internet. It's worth mentioning that

> **4Romania is** situated **on the** first **place at the** regional **level**

regarding the rate of the accommodation establishments and food services that have a that our country has the highest speed of internet broadband fast internet connection, due also to the fact navigation from the EU. Figure no. 1- Share of the tourist accommodation establishments and food services which have a fixed internet connection in the year 2016 Source: author's processing on the basis of European Commission data, Digital Scoreboard It becomes a practice that more and more enterprises provide the employees with smart mobile phones, laptop, tablets, etc., so that to facilitate their access to internet and to a fast information and communication. The devices made available are strictly for professional use, and the enterprises usually pay the subscriptions at the mobile phone and internet operator plus the possible use costs. Within tourism, this practice is more visible in Lithuania, because here 76,1 % of the accommodation establishments and food services make available to the employees such a mobile device. On the other hand, Romania is situated at the basement of the regional classification, because here only 27,7 % of the enterprises offer mobile devices to the employees (Figure no. 2). Figure no. 2 –Share of tourist accommodation establishments and food services that offer mobile devices to the employees, year 2016 Source: author's processing on the basis of European Commission data, Digital Scoreboard Most tourism enterprises use the new information technologies especially

> **28for the promotion of the products and services**

and less as a direct sale channel. Despite the considerable growth in the last ten years of the e-commerce (either B2B or B2C), its percentage in the total of sales remains quite low in Europe. Nevertheless, e-commerce continues to grow both in volume and in the geographical area of coverage.

1**Romania and Bulgaria are the countries in** which only 10% **of**

the tourist accommodation establishments and food services use the new information and communication technologies in order to sell their products and services to the final consumers or the dealers, which situates both neighbouring countries at the end of the regional classification. At the opposite end, in Czech Republic, over 32% of the analysed tourist establishments currently achieve online sales (Figure no.3). We mention that for the comparison of the results we considered the sales that represent at least 1% of the total value of the turnover (in currency terms, without VAT), and the e-mail sale was not included in the analysis any more. If we relate to the share of the tourist accommodation establishments and public food services that perform online sales abroad, we will see that Romania is situated again

4**on the last place at the** level of the **CEE-** EU **region with**

1,34%, in comparison with Bulgaria, where 6,62% of the establishments sell their products and services to foreign tourists. Figure no. 3 – Share of tourist accommodation establishments and food services that make online sales, year 2016; Source: author's processing on the basis of European Commission data, Digital Scoreboard In the year 2016, the share of online sale of tourism products and services in the total of sales registered by the accommodation establishments and food services from Romania was 2,46%, result which places our country

4**on the last place at the** level of the **CEE-** EU **region.**

This result confirms that internet is used mostly for promotion and communication, the sales being made through traditional methods (telephone, directly at the front desk or e-mail, once again mentioning that in the statistical analysis the sales made through e-mail were ignored). If we relate to the neighbour country-Bulgaria, we will see that the share of online sales, total turnover is double in comparison with that of Romania (5,14%), and in Croatia it is almost 10 times bigger (20,9%) (Figure no. 4). Figure no. 4 – Share of online sales from total turnover obtained by the tourist accommodation establishments and food services in the year 2016 Source: author's processing on the basis of European Commission data, Digital Scoreboard Tourism is an activity intensively based on human resource, and although the

44**information and communication technologies** begin to monopolize **more and more the**

promotion and sale processes, human resources are needed, especially ICT/NICT specialists that ensure a high level of online marketing. The data provided by the European Commission emphasize that in Romania, only 5,13% of the tourist accommodation establishments and food services hire ICT specialists in order to develop, exploit or ensure the maintenance of some ICT systems and/or applications (Figure no.5). It's true that

4**Romania is** not **on the last place** any more **at the** regional **level**

from this point of view, because there are countries like Lithuania, Poland or Slovakia in which the share of accommodation establishments and food services which choose to hire their own ICT specialists is lower, but, at the same time, in Bulgaria, no less than 14,6% of the establishments choose to internalize these services, placing the neighbour country on the first place at the level of the CEE-EU region. Figure no. 5 – Share of tourist accommodation establishments and food services that hire ICT specialists, year 2016 Source: author's processing on the basis of European Commission data, Digital Scoreboard Lower shares regarding the ICT/NICT accommodation establishments and food services specialist hiring can be explained by the fact that most choose, in a form or another, to resort to the services tourist entities prefer to outsource the development, of an ICT/NICT specialist, in Romania, the total share exploitation and maintenance services. The share of is only 50%. Thus, there is the premise that the the tourist accommodation establishments which tourism activity in Bulgaria is more visible in the resort to outsourcing is 43,8% in the case of Romania virtual space, more efficient, and, at the same time, the and 50% in the case of Bulgaria (Figure no.6). performances obtained by these entities are more Analysing the situation, we will see that in important. Bulgaria, a little over 65% of the tourist Figure no. 6 – Share of tourist accommodation establishments and food services that outsource the ICT service, year 2016 Source: author's processing on the basis of European Commission data, Digital Scoreboard A practice often met within the tourist accommodation establishments, and also the food services, amusement, etc., is that of using the personnel from different departments, including to implement and ensure the maintenance of the information and communication technologies: the receptionist, the marketing manager or the general manager of the accommodation establishment update the web site or the Facebook page with new information, one of the waiters posts the day menu of the restaurant, etc. Nevertheless, the share of the accommodation establishments which offer training to the employees in order to improve the ICT skills is quite low at the level of the CEE-EU region, here and there even concerning, if we consider the case of Romania (0,88%) or Bulgaria (2,96%) in comparison with countries like Slovakia or Slovenia, in which over 20% of the tourism enterprises are interested that the employees gain new skills in the field. Figure no. 7 – Share of tourist accommodation establishments and food services that offer training to the employees in order to improve the ICT skills, year 2016 Source: author's processing on the basis of European Commission data, Digital Scoreboard Gheorghe Mihai Orzan (2004) considers that "From a marketing point of view, a web site represents maybe the most important instrument through which the tourism firm can benefit from the existing opportunities in the virtual environment". But sadly, at the level of the CEE-EU region, Romania is, again, on the last place regarding the share of tourist accommodation establishment and food services that understand the role of a web site and chose to build one (43,7%). In comparison with Romania, in Bulgaria the registered share is 50,7%, but by far the country where the importance of the web site is most acknowledged is Slovenia, here almost 80% of the tourist accommodation establishments and food services have their own site. From figure no. 8 we can see that,

34**from the point of view of** this indicator, **the** situation registered at **the level of the**

countries in the region is much more balanced, the deviations from the average of the European Union being relatively low (except maybe Romania and Bulgaria). Figure no. 8 – Share of tourist accommodation establishments and food services that have a web site in the year 2016 Source: author's processing on the basis of European Commission data, Digital Scoreboard countries at the region level in which the presence of Social Media is higher than the online presence through a web site (Figure no.9). From a methodological point of view, the enterprises which use at least one of the following Regarding the presence of Social Media, the specific Social Media instruments are considered: situation between Romania and Bulgaria is a little social networks (Facebook, Instagram, Google+, etc.), more balanced, although even in this case, we see a blogs or micro blogs (Twitter), video-sharing sites slight superiority of the neighbour country from the (division video content: Youtube, Vimeo etc.). The South of the Danube. It's worth emphasizing two use of these instruments implies having a user profile/ aspects: first, Slovenia remains the country with the page. If we relate to the tourist accommodation biggest share of accommodation establishments and establishments and food services which use at least food services present including in Social Media and, two such instruments, we will see that mutations take secondly, Lithuania, Croatia, Romania are the only place

regarding the regional classification, Romania outrunning Bulgaria by a slight difference (10,3% share in the case of Romania in comparison with 10% in the case of Bulgaria), but both countries remaining at the same time on the last places in the classification of the countries

1**in the CEE-EU region. The** drastic decrease **of the**

shares at the level of all countries shows that the majority of the accommodation establishments and food services are focused on the use of one instrument from the sphere of Social Media, most probable a social network. Figure no. 9 – Share of tourist accommodation establishments and food services that use Social Media Source: author's processing on the basis of European Commission data, Digital Scoreboard The European Commission data within the Digital Scoreboard allow us the analysis of the degree of using the cloud computing services by the accommodation establishments and food services from the CEE-EU countries, The in cloud technologies are still in the emergent phase, that is why the shares registered at the regional level are quite low, varying from 5,45 % in the case of Lithuania to 21,9% in the case of Croatia.

4**Romania is on the** penultimate **place at the** regional **level**

regarding the use of cloud technology by the tourist establishments as a differentiation instrument in comparison with the competition by immediate delivery, by interactive applications which respond in real time to requirements. Bulgaria registers better results, because the share is up to 6,64% of the total of the enterprises with accommodation and food activity (Figure no.10). According to the European Commission methodology by EUROSTAT, we include in the cloud technologies those acquired ICT/NICT services having the following characteristics: are delivered through the providers' servers with minimum management efforts or intervention by the client or provider and that can be easily scaled. Figure no. 10 – Share of tourist accommodation establishments and food services that use Cloud Computing, year 2016 Source: author's processing on the basis of European Commission data, Digital Scoreboard Online promotion through paid campaigns advertising on Google (Google AdWords), represents an alternative to the campaigns of organic advertorials (paid articles) etc. growth of popularity in the online environment, in the From the point of view of this indicator, both sense that some tourism organizations find accessible Romania and Bulgaria are situated around the same to pay advertising on different types of support in value of 24%, which place them among the last order to advertise their image or services. The most countries in the regional classification. The registered known types of advertising used in the online values show that almost a quarter of the tourist environment are: advertising banners (static, dynamic, accommodation establishments and food services from video), advertising on Facebook (Facebook ads), Romania and Bulgaria pay for different advertising campaigns on the internet. Figure no. 11 – Share of tourist accommodation establishments and food services that pay advertising campaigns on the internet, year 2016 Source: author's processing on the basis of European Commission data, Digital Scoreboard V.CONCLUSION Subsequent to the data analysis made available by the European Commission through EUROSTAT, we conclude by stating that the difference between Romania and the other countries in the CEE-EU region

30**from the point of view of tourism competitiveness**

is

45**determined, to a certain degree,** by **the** level **of the**

NICT component, as

30pillar in the analysis of the **competitiveness**

in tourism or as enlivening factor of other pillars.

23From the point of view of the availability and **use of**

ICT/NICT infrastructure by the tourism accommodation establishments and food services, Romania is most of the times, on the last places in the regional classification. Although the boom of information and communication technologies was after the 90s, so in a period in which countries like Romania or Bulgaria including were part of the free market economy, the differences registered in the period of the communist regime (economic, and especially socio-cultural) were difficult to recover in the years which followed, consequently, this boom of the information technologies was little late in the South-East region of Europe. Only in the last years, Romania began to register more significant progresses regarding the internet access of the population and economic operators, reducing the differences in comparison with the other European countries. However, despite these evolutions, the digitization rate of the economy, including the public services, and the level of digital skills are still reduced

4in Romania in comparison with other European Union **countries. The**

results show that, both Romania and the neighbour country Bulgaria are the countries with the biggest deficiencies regarding the implementation of the new technologies at the level of the tourist accommodation establishments and food services. Thus, the two countries are on the last places at the regional level regarding the degree of providing the employees with mobile devices, the degree of using NICT in order to achieve online sales, the share of the tourist accommodation establishments and food services that offer training to the employees in order to improve the ICT skills, the share of the tourist accommodation establishments and food services that

48have a web site or those **that** use **the Social Media**

vectors, etc. It's worth mentioning at the same time that, unlike Romania, Bulgaria registers better results at almost all analyzed aspects, which demonstrates that the interest of the Bulgarian operators regarding knowing the NICT implications and their use to develop tourism and obtaining competitiveness on the international market is more obvious than in the case of Romania. Adopting NICT by the tourism organizations is not a simple process, depending on

54a series of factors which **influence the** decision **of the**

managers to adopt or not such technologies. Of course, in any destination, including those in Romania or Bulgaria there is another series of tourism organizations in which the inadequate formation, weak

25strategic management, the **lack of marketing** abilities **and the short-** time **orientation of managers,**

make that the development of that destination and, implicitly, the increase of competitiveness become a difficult process. A lack of understanding of the NICT value in the development of the private enterprises,

together with the lack of the management capacity and the wish to change, will prevent many operators in the industry from obtaining a competitive advantage. Nevertheless, the fact that tourists become more and more demanding, more informed and willing to share the travel experiences in the virtual space, will determine, eventually, the enterprises to meet the requirements and to develop an online presence in order to survive in the market. At the same time, in order to be successful on the international market, the destinations, through the management organizations, must combine private initiative with that of the public authorities in order to favour the development of practices of using new information technologies and adopting them in all the subsectors of tourism. In other words, understanding the opportunities brought by the internet in the tourism industry should become a priority including for the public authorities at the local, regional and national level from all the countries in which there is the requirement that tourism becomes a competitive economic sector. VI.REFERENCES 1.

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