PERSPECTIVE OF CROATIAN TOURISM SUPPORTED WITH ICT POTENTIAL AND ICT TRENDS

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Abstract
Purpose – Despite the fact that information and communication technology (ICT) provide innovative and advanced potential to significantly increase the competitiveness of tourism goods and services it is still insufficiently recognized and accordingly not enough used. On the other side, the ICT potential, if ignored, may results with serious consequences for the quality of tourism processes on supply side and demand side as well. The main aim of the paper is, therefore, to explore ICT potential in wider context and propose modalities how to apply it better and more professional locally, namely in Croatian tourism sector.
Methodology – Qualitative methods of analyses and desktop research were used in the study.
Findings – The authors outlined state of art trends in tourism induced by ICT and enclose example and case studies of some customized ICT solutions to tourism needs. Those results strongly emphasize the necessity of constantly following mentioned trends in tourism practice.
Contribution – Contributions are considered from three standpoints: firstly from the theoretical view the contribution is related on justification of ICT as main driver of innovation in tourism. Secondly, developing the framework appropriate for investigating the ICT potential requisite to increase competitiveness contribute within research part. Finally, proposing the basic guidelines to tourism management for improving the use if ICT potential present a practical implication of this qualitative review.
Keywords: ICT innovative potential, ICT trends, ICT implementation, Croatia

INTRODUCTION

Respecting wider geografical area, the main obstacle to tourism sector toward better development is mainly a lack of understanding of global trends and the dynamics of social change (Sigala 2013). These changes impose the constant need for technological, organizational and social innovations that enhance the tourism offer as a whole. In that context, the ICT industry has been developing the various innovative solutions that provide technical support to numerous tourism and hospitality activities such as: on line tourism intermediary systems (e.g. Lastminute.com or Booking.com), tourism websites enabling price comparison and/or online auctions, virtual communities with integrated reservation system (e.g. TripAdvisor), hotel reservation system with payment options and integrated with other hotel application modules, hotel reservation systems connected with paying systems and global distribution systems (e.g. Galileo, Amadeus, etc.), dynamic package websites, mobile applications intended to be used in tourism and hospitality sector, etc. The mentioned technologies have been providing (and still provide) quite significant potential to improve the quality of current business models in the tourism and hospitality sector (Buhalis 2003; 2005, Law and Jogaratnam

2005, Turban and Volontino 2010, Brethon et al. 2012, Gretzel et al. 2012, Minazzi 2015). Relatively long time ago, the researchers (Middleton and Clarke 2001) recognized and claimed that appearance of the Internet and its massive popularity completely changed the whole travel cycle significantly facilitating and adding values to each its phases.

The above stated potential (and lots of other technical solutions with similar potentials), if remain unused, may affect the quality of effectiveness within considered sectors and furthermore, weak their competitivenss. According Buhalis and Egger (2008) ICT significantly facilitate and generate new partnerships and hereby affect the competitiveness of each stakeholder in tourism industry. Tourism as activity of strategic relevance requires better networking of all stakeholders which could contribute to its better development based on innovation and creativity (UNWTO 2001). According World Economic Forum (2015) contemporary tourism, as information intensive activity (Buhalis 2003), is actually a process of active information search and two-way information exchange. The information shared within mere process ought to be easily accessible, simple understandable, up to date, reliable and securely distributed to all stakeholders, which is provided with support of numerous previously mentioned ICT solutions and systems.

In accordance with above mentioned, the main aim of the paper is, therefore, to explore ICT potential in wider context and propose modalities how to apply it better and more professional locally, namely in Croatian tourism sector.

1. TECHNOLOGY DRIVEN INNOVATION IN THE TOURISM INDUSTRY

Innovation is, according to the European Institute of Innovation and Technology (EIT 2009) and as a result of the innovation agenda developed in Lisbon in 2000, considered as „key to growth, competitiveness and thus social well-being in the 21st century".

Innovation has become the main driving force for structural changes and growth in the tourism sector. Tourism innovations are numerous and frequent, more complex than innovation in other sectors or industries (Verma et al. 2008). Moreover, innovation supported with technology slowly take domination in tourism system primarly due to fact that enable networking and high level of communication with partners and customers (OECD 2006). Thus, ICT facilitate the transfer and use of all types of information and is considered as the base of the whole economy of 21st century society "(Budin et al. 2002). Innovative nature of ICT have changed the way of communication with potential customers over the Internet by setting new rules to create content tailored to the use of the media (Kaplan and Haenlein 2010) and by optimizing different tourism websites adapting them to become as more as possible customer friendly (Sigala 2005, Seybold and Marshak 2010).

1.1. Latest innovation trends in the tourism industry

The trend of rapid international trips growth is turning tourism into one of the most lucrative industries. Tourism companies operate in a business environment where innovation is important for their survival (Sorrensen 2007). Globalization of tourism activities (Wahab and Cooper 2001) and the wider application of ICT in tourism (Sigala 2007) commonly create new dynamic environment where innovation concept and its associated transforamation in operative solutions applied in practice, has became of great importance. Thus, the adoption of innovative methods and solutions that should each tourism management use to promote and support destination product can ensure the required quality levels and the diversification of services as well (Hjalager 2002). The latest trends are, on the one side, the reference base for the analysis of current country position regarding adoption ICT solutions in tourism practice and, on the other side, represent directions for overall guideliness for future development.

In accordance with that, the rising number of new technological solutions appeared on the market induce, not just changes in tourism management strategies and tourism market approach (Minazzi 2015), but also strongly invoke all related stakeholders : (i) to follow as more as possible the state of the art in ICT field, (ii) to appreciate ICT inovative potential as significant support to competitvness and (iii) to provide ICT daily applications and integration in various tourism processes. The final purpose of such approach is to improve the quality of complete tourism offer, and to be finally more innovative and competitive on the market than the competitor's offers are.

Furthermore the authors point out several ICT innovation trends (Fitzpatrick 2015) that emerged at global level including recent and forthcoming innovations, either on operational level, or on conceptual one, that indicate significant changes in the tourism activities performances. The related overview of named trends is presented in text below:

- *The Internet of Things (IoT)* – or "Internet of Objects" is term related with networked devices via the Internet (Kirkpatrick 2010). Connecting devices due to wireless intelligent network, provides new opportunities for interaction between different systems and brings new possibilities of data measurement, collection, storage, visualization, data exchange with other things and people as well as performing tasks based on the information collected. The market intelligence organization International Data Corp. (2014) estimates that untill 2020, about 30 billion embedded devices, named the Internet of everything, will monitor and manage countless activities in everybodies lives.
- *Big data* – is referring on powerful tool for analizing large quantity of data and translate social metrics into decision. It is, therefore, beneficial as supporting technology to knowledge management and decision making process. The strategic role of the tool is illustated by following: in September 2014, Microsoft assigned Bismart, a local big-data startup, to analyze the spending of some of the 2 million people partying at Barcelona's annual four-day festival (Walt 2015) and to monitor the credit card swipes of 448.000 tourists. According to the words of Bismart CEO Albert Isern (Isern 2015), due to big data technology it was revealed that French

people camp (rather than stay in hotels), and British people don't spend anything. Just for comparation, in the past, marketing companies would have tried to find those results by questioning tourists what required much more funds, time and resources engaged.

- *Mobile booking* – current trend in tourism industry mostly provided by consumer confidence in mobile technology supplemented with the industry's ability to provide real time pricing information. Moreover, companies that are already delivering great booking experiences are slowly turning their attention to easier booking over mobile devices, deeper insight into customer profiles, flexible customer preference management, and extended involvement in the customer's trip. To facilitate bookings, for example, Expedia developed *ScratchPad* to track a logged-in user's searches regardless of device used (Fitzpatrick 2015). Once the user indicates a destination preference, Expedia pushes relevant content including daily price changes and daily special offers as well.
- *Travel 3.0: Smart Travel* – personalised travel services provided due to big data and mobile technology support. The aim of named technology is to turn user's device into a personal assistant that provides *"the right information in the right time on the right place*", and additionally predicts user's travel, appointments, web interests by using information from user's calendar or inbox. Considered technology may also be suplemented with geo-localisation service and accordingly enable collecting and presenting tourists suggestions on local level. According to the WTM Global Trends Report (2015) published by market research firm Euromonitor International, the TripAdvisor *Apple Watch* application can send a push notification at lunchtime with information about the highest-rated restaurant nearby which with further intention to tailor the service to travellers' personal tastes. According the same report, *Google Now* is second example of bringing proactively consumers information before the tourist ask for them, based on their past behaviour.
- *Digitalisation in secondary cities* – secondary cities (geographically perceived as urban centres performing vital governance, logistical and production function) is making relevant effort to attract travellers. With intention to be smart, they implement the cutting-edge technology and redesign as more as possible its tourism offers. That technology may range from simple smartphone applications and online games to big data usage. The city of Bristol, for example, in 2014. installed over 200 devices (known as *beacons*) which detect nearby smartphones and send visitors daily information accurate to where they are (WTM Global Trends Report 2015).
- *Hotels embracing technology* – the latest technology that actually improve checking in, tracking luggage, accessing rooms, ordering drinks and paying hotel bills with a smartphone. For instance, Starwood Hotels & Resorts launched its SPG Keyless program, lets guests check in and access their rooms via their phone (Business Wire 2015).
- *The end of mobile applications as is known* – the main problem of the increasing number of travel applications is an overwhelming volume of the incoming content. Producing multiple contents on a phone screen, they all compete with each other for a customer's attention. The concept of application as independent

service only, is becoming less attractive than the concept of an application as a publishing tool, with additional related content. One of the possible solutions is *Google cards*, the smart digital assistant that predicts what customer wants to know before asks for it.

- *Augmented Reality (AR) and Virtual Reality (VR)* – both technologies, virtual reality and augmented reality are similar in the goal of immersing the user. Augmented Reality enable users touch with the real world while interacting with virtual objects around them. By utilising this quite delightful technology, reality augmented historic figures or fictional characters appears to promote attractions, restaurants and other local offer. In Virtual Reality, on the other side, the user is isolated from the real world while immersed in a world that is completely virtual. In 2015. Marriott hotels launched their own 4D* VR Travel Experience so their guests could experience a short stay in, for example - Maui or London (Marriot International Inc 2015). The VR along with 4D components could be also used to check out the hotel room before booking, or to enable a "soft" version of experiences such as bungee jumping before real jump.
- *Destination Management Systems (DMS)* – the development of DMS substantially have been supported by numerous destinations managers since it: (i) enhances the competitiveness of tourism destinations and specifically of the small and medium tourism enterprises (SMTEs) (Sigala 2009) and (ii) concurrently offers tourists various travel information through Internet by using the web-based portals developed by local DMOs.
- *Dynamic packaging* – considered as the bundle of different travel components, priced in real time, arranged as response to the consumer's or booking agent requests (Cardoso 2005). Above mentioned DMS portals also may offer the dynamic packaging to the tourism demand side.
- *Smart tourism destinations (STD) concept* – due to adoption of cloud computing is provided access to web platform that significantly facilitate destination managements efforts to offer more productive, efficient and competitive services. The Smart Tourism Destinations (STD) concept emerges from the development of Smart Cities (Buhalis and Amaranggana 2015). With technology being embedded in each tourism entity, destinations acquire great potential to exploit synergies between ubiquitous sensing technology and their social components to support the enrichement of tourist experiences, primarly by offering right services that suit users'preference at the right time.

1.2. Is ICT potential really recognized?

In spite of previously analysed ICT potential to serve and improve activities on supply as well as on demand side, Global Information Technology Report (in WEF 2015) indicate, on general level, delay in new ICT solution recognition, as well as in its readiness to use and implementation. The report also highlighted the growing gap between countries that use the Internet technologies and social media and, and on the other side, those who do not use that ICT potential. According the same source, and compared to last year, Singapore, Finland, Sweden, the Netherlands, Norway and Switzerland continue to be the leading country in the world in the context of readiness to use ICT.

WEF (2015) rated the business environment in Croatia as no incentive for growth and investment in tourism, the government is also received low scores because the lack of given priority to tourism and travel, tax environment is discouraging, the market price are apprised as quite uncompetitive. The serious obstacle to the prosperity of Croatian innovative tourism is not hidden in the inefficiency of the tourism sector, but in a non - stimulating domestic business environment which does not give priority to tourism and travel. Related with a/m report (WEF 2015) study focused on information technology use and its innovative appliance with purpose to finally reflect on competitivness, Croatia was 54 out of 143 countries which present a decline of 8 places compared to 2014. This rank positioned Croatia in the medium-developed countries and also indicate that Croatian tourism authorities and all other associated stakeholders do not undertake enough to encourage innovation based on ICT potential and its implementation in real sector. Moreover, it is revealed by suitable test usage that still some Croatian tourism, travel and hospitality websites are not mobile ready (Google Developers - Mobile Friendly Test). Currently, there are only 300 free Wifi hotspots in Croatia (Croatian Tourist Board, 2015). Tourism employees are not trained systematically to use the latest ICTs while the majority of tourism enterprises are not integrated with the updated ICTs or do not utilize social media for business development purpose.

2. METHOD

Above mentioned technology overview has proved the considerable insight in latest ICT potential and related strategic role in significant improving tourism and hospitality process performances (Gretzel et al. 2012). It is additionally presumed that prosperous tourism destinations will be those who adopt and integrate in its business models up to date technologies (Olsen and Connolly 2000, Kaplan and Haenlein 2010, Minazzi 2015). Following that, the aim following qualitative research is to explore ICT solution already adopted in domestic tourism practice and, to propose modalities how to apply it better and more professional locally, namely in Croatian tourism sector. Having in mind that Croatia is perceiving tourism as one of the main pillar for the whole economy recovering, it becomes necessary to recognize and implement as more as possible the latest technology solutions in current tourism practices. In particular, ICT currently implemented projects are examined. In other words, the research is focused on those technology solutions that tourism authority in Croatia and (some other EU countries) recently adapted in order to either attract the guests, either to raise the level of traveling satisfaction. Therefore, the following research proposition is set down:

Proposition 1: Advanced technologies still offer wide spectrum of innovative potential to be used in Croatian tourism.

In addition, the authors considered intrinsically identifying tourist profiles according ICT trends. Under presumption that global technological trends influence traveler behaviours (Mills and Law 2004, Xinran and Dae-Young 2006) which are subsequently reflected on local communties and its ICT adoption, the second proposition is set as follows:

Proposition 2: Global ICT trends, by generating new tourist preferences, encourage IT appliance in tourism on local level.

In analyse, were used secondary data collected from Internet database and official materials related to projects examined. The purpose was double: (i) to sistematicaly collect information of the ICT as potential that significantly support tourism and (ii) to analyse ICT trends which, adapted by numerous turist, influent their behaviour which moreover lead to higher ICT adoption localy.

3. RESEARCH FINDINGS

With aim to examine the 1st proposition, desktop and Web research resulted with technology solutions (presented as research studies in text below) that tourism authority in Croatia already implement in order to attract guests and to raise the level of traveling satisfaction.

3.1. Technology solutions in Croatia

- **Research study 1: Rentlio**

Rentlio present Web application developed by croatian IT experts, from innovation concept to applicative solution, that automates all activities regarding small private accomodation fulfillment (Rentlio 2014). Rentlio as complex information system integrate property, channel and guest management activities in one system. The powerful solution that recently were available only within larger accomodation units such as hotels, is now tailored to serve the needs of private accomodation units simply allowing them, a focus on the customer and effective sales of its capacities.

Rentlio, beside property management activities (available by *Property Management Module*), provide the users with unique calendar, than update sales channels (available by *Channel Manager Module)*, create invoices and statistics as well as manage communication with guests (available by *CRM module*). *Channel manager modul* eliminates the possibility of overlapping reservations and all reservations made through one of popular booking portals are automatically visible in *Rentlio-in* option. The welfare of these applications for users, from a psychological aspect of view, is evident in lower level of stress. For instance, the user via Booking.com receive a book, while about minute later a new booking for the same accomodation unit comes across Expedia since the user did not still updated availability in all sales channels. On the other side, Rentlio due to communication with the world's largest on-line booking portals update property availability automatically in real time.

- **Research study 2: E-Visitor**

Technical solution for the tourists registration during visiting Croatia. The solution effectivelly connects all the tourist board in Croatia and is available for wider use from the begining of 2016 (eVisitor 2015). This system enable networking and sharing the information collected from all tourism offices while particular tourist communities

benefit from the access to all the data collected from the accommodation providers as well as the tourists movements in the related area. The system, due to provided integration with the web, enable also calculation and control of tourist tax collection as well as the processing, analizing and reporting real time data. Providing the tourist board opportunity to fulfill offical commitmet and collect the list of tourists and associated registration forms (Narodne novine no. 152/08., 59/09., 30/14.), eVisitor is considered as a central place for facilitating the named duty within quite friendly interface without additional costs or resource engaged. In meantime, the administrative and financial capacity can be re-focused on more creative activities within marketing and sales area.

- **Research study 3: TOURISMlink Project**

TOURISMlink, funded by the European Union project is based on the European principles of sustainable development, transforming each participating destinations into networked partners within whole EU (TOURISMlink 2013). The project is established to improve the competitiveness of the tourism sector by using ICT capabilities. TourismLink in Croatia were included 40 hotels and 10 other tourism entities (museums, restaurants, etc.). Although the project is not completely finished, the TOURISMlink online platform was developed three main modules such as: a central reservation system *(CRS module)* that centralizes all products and destinations into one database, then a property management system *(PMS module)* and, finally, the channel management *(CM module)*. The TOURISMlink Project give a proper insight on how business intelligence technologies can be used to strategically support destination management activities. The project is especially targeting small and medium enterprises (SMEs) with aim to facilitate their participations in digital market as well as sharing all related benefits and opportunities. Additional values of participation in Project are (TOURISMlink 2013): (i) determination of specifically-tailored solutions for the tourism industry, (ii) access to an efficient business environment with established confidence between different destination stakeholders and (iii) access to new business opportunities and new markets.

- **Research study 4: Microsoft City Next – Zagreb City**

Technical solution that provide a broad range of support to smart cities development facilitate cities to manage their assets and amenities by taking advantage of technologies such as Big Data, mobile, cloud and social technologies.

"City of Zagreb Open Data Portal“ (Data.Zagreb, 2015) was part of CityNext global initiative consisting of numerous Microsoft partners around the world with purpose to empower cities, businesses sector and citizens, and to encourage city development by creating and adapting innovative technological solutions. The project was based on the concept of City as a Service and, as such, enable project partners trustful portal for publishing open data, as well as reliable platform to use applications designed for "smart cities“. The main reasons for implementation Open Data Portal are twofold: (i) to enable users access and data use resulting with particular cost savings and (ii) to encourage software company partners to develop additional applications which may additionally expand the existing portfolio.

3.2. Traveler trends influenced by ICT

Futhermore, to expore 2nd propositions, another desktop and Web research process was provided. The method used resulted with identification of trends initated by ICT that influence tourist behaviours. More detailed, the search find out quite specific tourist profiles considerably supported by ICT adoption on demand side. The related trends that each tourism authority ought to follow, understand and prepare the whole local community to respond adequatly are as follows:

- **Travellers preference to be unplug for a certain time** – the named trend means travelers need sometimes to completely sign-off from work on holiday. This may recquire from hoteliers and destinations to find balance and remain WiFi as core requirement for many other tourists and offer WiFi as a selling point.
- **Discovering untouched and unique places** – tourists are looking for opportunities to explore lesser-known destinations, especially those that are untouched or unique and, accordinglly ahieve as more as possible related content over social and other media.
- **Fluid identity** – related on the setting that choice and the desire for new experiences drives tourist consumption. From a tourist perspective, fluid identity is based on collecting countries, trying new things and the seeking for constant change. In the fluid environment, communications channels and technologies are fast moving and instant, which produces particular culture of choice enhancement. Tourists form their opinion not on trusted sources from authority but from peer review. Hence the consumer-generated content available by diferenet social media (Brethon, 2012) is becoming even more important.
- **Millennials are looking for adventure** – the market of young traveller looking for unique and authentic experiences, companies that listen to their feedback, opportunities to learn something new and word of mouth recommendations (UNWTO 2011) is in constant growth. As younger generations of consumers embrace the use of mobile media to seek information, destinations are intend to incorporate technology with information provision to enhance the visitor's experience.
- **Self-service and the currency of time** – current culture of instant requirement fulfilment is mostly provided by mobile and social media technologies. The related example is flow management technology (introduced by Helsinki Airport in 2014) that allow passengers to benefit from location-based content sent to their smart phones, such as information of changed departure times or gate, as well as transfer directions help (Fitzpatrick 2015). Additionally, Wi-Fi routers discretly, within data security area, monitor signals from smart phones either passively either with an app-based opt-in.
- **„Do-it-yourself" (DIY) travel** – self-service travel is particularly popular with *Do-It-Yourself* travellers who plan, manage and book travel online, rarely speaking to another user in the process and are most likely to use social media to comment, praise or criticise services. They prefer to feel independent and enjoy their trip without having to interact with others. Therefore the local supply side must make the most of their access to customer data and high technology (web portals, social networks, etc...) to serve travelers in digital way.

- **Authentic experiences** – the trend for authentic experiences has arguably been driven by the ubiquity of social networking. Travellers surrounded by filtered images of friends and strangers daily participate in their lives. The related example Berlin based company „My Plus One" lets users 'Book a Local' for activities and experiences ranging from seeing street art to going clubbing (Fitzpatrick 2015). Visitors fill in a form, select how much time they would like to spend with their local, get pricing, then wait for locals to accept their request.

4. DISCUSSION AND CONCLUSION

In spite of not rather optimistic Global Information Technology Report (2015) it is evident that Croatian tourism authorities, in particular size, recognized ICT potential and have been finding out new ways of ICT implementation in tourism practice. Besides analysed solutions (*Rentlio, E-Visitor, TOURISMlink Project and Microsoft City Next – Zagreb City*). Croatian software producers also have been developed its own *in – house* made application which furthermore were implemented and maintained in numerous tourism accomodation and hospitality units. Furthermore, numerous mobile applications (e.g. *Croatia.hr, Rijeka Connect, Bike Rijeka, Enjoy Croatia, Croatia Olive oil (guide), Crocities,* etc) have been developed, implemented and recognized as tourism projects with innovative support to destination promotion, and accordingly awarded at the world level. For instance, mobile application *Zagreb Be There* won the award in 2015 as the best in the category of digital media, in a competition of 30 cities from 20 European countries (Zagreb Tourist Board, 2015). The mobile applications significantly support Croatian tourism, firstly, by promoting particular destinations, their heritages, nature, events and all tourism related products and, secondly, by enhancing the destination related authentic experiences. Having in mind that numbers of mobile users are in constant growth, Croatian tourism supported with wide spectrum of mobile applications and ongoing traveler ICT trends would extra benefit. The indicators are as follows: 8% of Millennials (i.e. travelers aged 18-35 years old) book their trip on a mobile device (Trip Barometer, 2015) and 65% of same day hotel reservations are made from a smartphone (Statistic Brain, 2015). Moreover, 30% of all direct online bookings are realised on mobile devices (i.e. tablets and smartphones), and is increasing at rate of 1% per quarter (Rezdy data, n.d.). According Visa Global Travel Intentions Study (2015) mobile devices are the most important gadget for travelers. The same study indicate that 64% of travelers use their mobile devices to access destination information before travel and 75% of them use mobile after travel to share destination experiences recorded as picture, text, and/or video.

The usage of mentioned ICT solution, as well as presented ICT trends are expected to motivate further ICT integration in Croatian tourism sector due to its potential to improve quality on: (i) demand side by innovating whole travel cycle which particulary include travel inspiring, planning, booking, destination experiencing and sharing the best travel moments, and (ii) supply side by encouraging processes efficiency, facilitating internal and external control and minimizing the response time to any business requests (Buhalis 2005, Buhalis and Amaranggana, 2015). Regarding Croatian tourism support, the presented ICT trends and the ICT projects offer additional motivation to all tourism stakeholders to practice longlife learning in the area of

developing innovative business models based on ICT. It also pull them to include ICT in official tourism strategy and engage staff not only to do things right, but to do right things.

In that context, and reffering on technologies mentioned in subsection 1.1, the authors seriously suggest destination authorities to redefine destination development plans, ensure more funds for ongoing ICT projects and make real efforts in converting the destinations in so called *smart destination*.

The related ICT potential based on mobile technologies, business intelligence tools and big data engine would bring together both structured and unstructured data from hundreds of different sources (e.g. sensors, internal systems, open databases, feeds and social network) across whole destination. The data analyses based on almost uncounted real-time data generated from destination's IoT (Internet of Thing) sensors placed everywere would produce added value for destination strategic management. Finally, quickly insight in the latest weather and traffic conditions, ticket prices, public transportation schedules, restaurant offers, hotel occupancy, sharing visitor's experience, ratings and comments through social media, would certainly improve numerous daily performed processes, prepare destination for forthcoming challenges (Yeoman et al. 2012) and thus bring significant operational contributions to each destination stakeholders.

Futhermore, ICT trends that influenced specific traveler behaviours almost provoke destination staff to pull the current technology locally and enhance the visitor's experience. Thus, social and other media serving as support to discovering untouched and unique places, traveler fluid identity trend, web portals and mobile booking empowering milennials or DIY travel's authentic experience, present the challange for destination management, claiming to be considered as modalities moreover directions (or guide) toward ICT implementation on local level.

In summary, the outlined state of art trends in tourism induced by ICT supplemented with enclosed ICT case studies exploring certain customized solutions as well as similar projects already implemented in different EU countries, strongly emphasize the necessity of constantly following mentioned trends in EU and, particularly, in Croatian tourism.

Overview of currently implemented innovative ICT solution justified the ICT potential as relevant driver of innovation in tourism and, present certain framework to strongly support hotel and destination managers in developing new products and services based on ICT innovative potential. Croatia as medium-developed country strive for solutions offering options to increase its competitiveness and accordinglly to rise its rank among EU countries. Finally, in accordance with The Travel and Tourism Competitiveness Report (WEF 2015) it is highlighted the importance of national leadership in creating a proper regulatory and business environment and to encourage ICT applications in tourism product and service design, as one of the basic pillar for future tourism developments. And last, but not least, the lack of primary data analyzed by using quantitative methods is the certain research limitation and, in accordance, the authors, in next research, intend to extend the current qualitative study.

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