

TOURISM2.0: THE RELATIONSHIP BETWEEN TECHNOLOGY AND ORGANIZATION PERFORMANCE

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Résumé

L'innovation technologique et le tourisme avançaient main en main depuis des années (Poon, 1993; Sheldon, 1997). Les Technologies de l'Information et de la communication (TIC) ont un impact significatif sur l'ensemble de l'industrie touristique. Plus spécifiquement, les progrès technologiques ont transformé la façon dont les produits et services touristiques sont produits et consommés et les expériences touristiques sont créées.

Si les 20 dernières années se sont accentuées sur la technologie en soi, alors depuis l'année 2003 nous assistons à une véritable transformation de l'effet des technologies de communication, c'est la révolution du web 2.0 ! Ceci a donné la possibilité de développer une vaste gamme de nouveaux outils et services qui facilitent l'interaction mondiale entre des consommateurs et des organisations.

Cet article étudie la relation entre technologies et performance d'une organisation et aborde plusieurs questions: les TIC sont-ils considérés comme source d'avantage compétitive pour les organismes du tourisme, plus particulièrement pour l'industrie hôtelière? Est ce que les dirigeants des hôtels sont conscients des nouvelles opportunités de commerce à travers les TIC? Les investissements en TIC augmentent-ils la performance d'une entreprise hôtelière?

Mots-clés: TIC, Web 2.0, performance de l'organisation, compétitivité

Summary

Technological progress and tourism have been going hand in hand for years (Poon, 1993; Sheldon, 1997). Information and communication technologies (ICT) have had a significant impact on the entire tourism industry. More specifically, technological advances have transformed how tourism products and services are produced and consumed and tourism experiences are created.

If the past 20 years have seen an emphasis on technology per se, then since the year 2003 we have been witnessing the truly transformational effect of the communications technologies, it's the Web 2.0 revolution! This has given scope for the development of a wide range of new tools and services that facilitate global interaction between consumers and organizations.

This paper studies the relationship between technology and organization performance, and addresses several questions: are ICTs considered as a source of competitive advantage for tourism organizations, especially hospitality industry? Do hotel managers recognize the new business opportunities emerging through ICT? Does ICT investment increase a hotel firm's performance?

Keywords: ICT, Web 2.0, organization performance, competitiveness

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INTRODUCTION

In a global market economy, companies must identify the key resources that can possibly generate a competitive advantage. They should also explore how they can access and capitalize on those resources in order to improve their business performance and stay competitive in the marketplace. The relevance of resources varies according to industry, time and space and may also depend on external industry conditions. Old resources such as personal contacts and low prices alone might be losing their competitiveness potential while intangible resources such as quality or brand (Tsai, Song, & Wong, 2009) are gaining in importance.

New resources not previously known or explored might bring new potential for competitiveness. If for any reason companies have neglected the development of an important resource, new priorities must be set and a new policy defined in order to close the potential gap with their competitors.

Today researchers claim that Information technology (IT) and the Internet in particular can create a competitive advantage and improve performance and competitiveness (Namasivayam, Enz, & Siguaw, 2000; Porter, 2001; Sirirak, Islam, Khang, 2011; Mihalič, Buhalis, 2013).

In the tourism industry, the use of ICT has changed the way of life of the entire world from the economic and socio-cultural point of views (Beltran, 2012). The nature of tourism includes creation/transformation and transmission of information. In fact, it is strictly connected to new technologies in two levels, the operative one (when the process located in the chain became digital) and the strategic one (referred on the relation between enterprises and competitive context).

As Weiermair (2001) notes, Information and Communication Technologies play an integral role in enabling tourism operators of all types to “act local and think global”.

The main purpose of this paper is to study the relationship between technology and organization performance. We will show how important are the new technologies adopted for tourism companies And how do these new technologies relate to competitiveness and competition positioning of tourism companies. Finally, to concretize the study, we added the ‘Best practices’ section that emphasize some examples of successful strategies of tourism 2.0 .

1. INFORMATION TECHNOLOGY AND BUSINESS-LEVEL STRATEGY

Over several decades, numerous studies in both the MIS and Strategy fields have tried to theorize the character of, and examine business-level value attributable to, IT investments.

Work on this topic in the MIS area is quite prevalent, with several hundred studies on the “business value of IT” documented in review articles (Kohli and Devaraj 2003; Melville et al. 2004; Piccoli and Ives 2005).

Among the many studies that find clearly positive returns, some find clearly mixed results for the IT–performance relationship (Barua et al. 1995; Barua and Lee 1991; Francalanci and Galal 1998) and some find a clearly negative relationship (Lee and Barua 1999; Loveman 1994).

Yet other studies show that the realization of IT gains, although documentably positive in their potential, are largely subject to organizational implementation issues unrelated to the technology itself (Brynjolfsson and Hitt 1998; Mooney et al. 1996; Nolan and Croson 1995) that inhibit capture of IT attributable benefits by the firm’s owners (e.g., Brynjolfsson 1993).

According to Geroski (2000), technological change is creating new business models that incorporate continuous change as a strategy.

Buhalis (2003, 31) claims that the real benefit of information technology lies in the linking and reconfiguring of business and organizational functions, resulting in a lowering of operational costs, improved communications with stakeholders and the ability to operate internationally.

2. ICT AND ORGANIZATION PERFORMANCE

An organization performance is defined as the outputs or meaningful business results measured against its intended outputs. Organization performance can be measured by different tools, such as financial performance, market performance, employee satisfaction and social responsibility but financial and market performance usually receives a lot of attention of managers and researchers because of their importance in an organization survival and success (Xiao, 2008).

According to Jahanshani et al. (2011), the organization performance is gaining an unprecedented improvement from the development of the technologies in business and trade.

In the hotel industry, IT investments are often made to improve performance (Tsai et al., 2009). It has also been suggested that ICT change the very rules of tourism with industry leaders being forced to adopt new managerial and strategic ‘best practice’ (Buhalis 2000, Law 2001).

Information flows facilitated by the communication system can potentially increase the sales volume by reaching customers directly and promptly whenever a new product is introduced, and by tapping into markets that were inaccessible on account of distribution or other infrastructure constraints (Wu, Mahajan, & Balasubramaniam, 2003). Also, the synergistic benefit achieved through an integrated system allow organization to respond better to customer problems and requests (Rogers et al., 1993). For example, Organizations have implemented E-Commerce it helps them pursue internal improvement and achieve a higher level of human resource development, cost reduction, continuous improvement, and organizational efficiency and development (Chang, Jackson, & Grover, 2003). To harness resources in establishing and maintains

its competitive edge is a major concern for marketing scholars that connects various types of market-based assets with the ultimate financial performance of organization (Srivasta, Fahey, & Christensen, 2001).

There are a number of ways that Information and Communications Technologies can enhance the performance of an accommodation enterprise and assist in gaining competitive advantage (Baker et al, 1999; Baum and Odgers 2001; Buhalis 2001c, Milne and Pohlmann 1998). These include; allowing a quicker response time to market and immediate processing of enquiries; integrating different applications to allow seamless processing with reduced error; sharing of resources; increasing capacity of work flow and worker productivity; customization and/or standardisation of key product offerings; flexibility and the adaptability needed to keep pace with the fast moving market, and the ability to creating communities of online suppliers and clients (Murphy 2003; Mutch 1998; Sigala et al 2001).

- **Example of study**

Cobanoglu, Ayoun, Connolly & Nusair (2010) studied the impact of information technology steering committees on perceived IT management sophistication in hotels. MANOVA was used to test if there was a significant difference in the levels of IT management sophistication between hotels that have an IT steering committee than in hotel companies that do not have such committee. The results indicated that the hotels that have an IT steering committee have a higher level of IT planning, culture, integration, control, and organization sophistication ($F = 20.85, p < .000$), supporting H OVERALL. . Such committees are of strategic importance to the overall success of the hotel in achieving not only its IT strategic objectives, but also gaining an edge over its counterparts in terms of the potential to maximize its return on the investment in technology (see Table1).

Hypothesis	IT sophistication dimensions	Hotels with IT steering committees ($N = 111$)		Hotels without IT steering committees ($N = 92$)		F	p
		M^a	SD^a	M^a	SD^a		
H1	Planning	3.00	.53	2.68	.71	2.79	0.018
H2	Culture	2.82	.58	2.46	.66	4.32	0.002
H3	Integration	3.30	.44	2.58	.62	11.86	0.000
H4	Control	2.93	.52	2.64	.68	5.43	0.000
H5	Organization	2.55	.38	2.35	.39	4.64	0.001
H Overall	Overall sophistication	2.91	1.43	2.54	1.98	20.85	0.000

Table 1 : Multiple Analysis of Variance (MANOVA) results Indicating Significant Mean Differences Between Hotels With IT Steering Committees and Hotels Without Such Committees in Terms of IT Management Sophistication.

source : (Cobanoglu et al., 2010)

a : The scores for each dimension are on a scale of 1 (strongly disagree) through 5 (strongly agree)

H1: The level of IT planning is significantly higher in hotel companies with steering committees than in hotel companies that do not have such committees.

H2: The level of IT culture is significantly higher in hotel companies with steering committees than in hotel companies that do not have such committees.

H3: The level of IT integration is significantly higher in hotel companies with steering committees than in hotel companies that do not have such committees.

H4: The level of IT control is significantly higher in hotel companies with steering committees than in hotels companies that do not have such committees.

H5: The level of IT organization is significantly more formalized in hotel companies with steering committees than in hotel companies that do not have such committees.

H Overall: The level of IT management sophistication is significantly higher in hotel companies with steering committees than in hotel companies that do not have such committees.

3. ICT AND INNOVATION

Following Kleis et al. (2012) we posit that the use of ICT contributes to firms' innovation activities through three main channels. The first channel goes through the improvement of the management of the knowledge used in the innovation process. This knowledge might be internally created or externally acquired. Information technology enables an efficient storage and a high accessibility of this knowledge throughout an enterprise. Internal networks, e-mail systems, and electronic databases all facilitate the transfer of knowledge and the communication between innovation participants. This is particularly the case for external information, which is critical for successful innovation (Klevorick et al., 1995; Laursen and Salter 2006).

Second, ICT enables a more efficient cooperation in innovation with external partners. The creation of new knowledge through collaboration with other firms has become more and more important in the last twenty years (Enkel et al. 2009). Information technology facilitates the exchange of information with external partners that are located far away from the focal firm.

Third, ICT contributes directly to the innovation production in several ways. Kleis et al.(2010) identified three main stages of the innovation process, for which the application of ICT has proved to be useful. First, the stage of the generation of ideas for new products can benefit from information systems (e.g., Customer Relationship Management CRM) that enable a firm to analyze customers' communication and transaction data and identify needs that can be covered by new products or significant modifications of existing products. Further, information technology enables the development of efficient design capabilities for new products. For example, technologies such as computer-aided design (CAD) and computer-aided manufacturing

(CAM) help to digitize a new product's design, make it available throughout the innovation process. Finally, ICT helps integrate design and production systems, so that errors of information transfer and translation are reduced and, as a consequence, the efficiency of this last stage of the innovation process is increased.

Furthermore, ICT can also directly drive ICT-based innovations in firms' processes and products and services, and even business models (Tapscot et al., 2000; Bresnahan et al., 2002; Brynjolfsson and Saunders, 2010). It can enable new products and services, and also existing products' and services' variety and personalization, which were not operationally and economically feasible before without ICT.

The existing empirical literature on the impact of ICT on innovation is quite heterogeneous with respect of the sectors of the economy and the time periods covered, the measures of ICT and innovation as well as the methods of analysis used. Most of them are based on firm level data from only one country, and only two are multi-country studies. The different points of time of these studies have to be taken into consideration when assessing ICT effects on innovation and/or economic performance at firm level, because of the newness of these technologies and the different diffusion rates of them among sectors and countries in the last decade. In particular, Han and Ravichandran (2006) examined the relationship between IT investment and firm innovation outcome based on data for 450 US firms; they found that IT investment did not have a direct effect on innovation outcomes measured by patent counts, but the interaction between IT investment and R&D expenditure positively affected innovation.

Gago and Rubalcaba (2007) focused on the service sector, and investigated the impact of ICT on service innovation based on data from 557 Spanish service firms; they found that ICT correlated positively with the importance of firm's innovations of productivity and costs, product or market expansion, employment and required skills, services quality and fulfilment of ecological standards.

There are also two German studies focusing on the effects of different types of enterprise software on innovation. Engelstätter and Sarbu (2010) investigated the relationship between the use of sector-specific standardized/packaged enterprise software and customized enterprise software on service innovation (335 German firms; 2007-2009); the results showed that primarily customized enterprise software contributes significantly to innovation. Engelstätter (2012) examined the relationship between three types of enterprise software systems offering different types of functionality - enterprise resource planning ERP, supply chain management SCM and customer relationship management CRM - and firms' innovation performance. The results showed that the likelihood of introducing process innovations is correlated positively with ERP systems, while the likelihood of introducing product innovations correlated with the use of CRM ones; and also that the number of process innovations a firm realized is correlated positively with ERP systems, whereas the number of product innovations is correlated with the use of SCM ones.

In a study based on 2,500 UK SMES in the year 2004 Higon (2011) found that ICT enhance mainly process innovation, while only specific market-oriented ICT

applications (such as websites, or ICT supporting R&D) favour product innovation. Kleis et al. (2012), analyzing data from 201 large U.S. manufacturing firms over the period 1987 to 1997 including a total of 1,829 observations, found that ICT capital has a positive effect on patents output (which is used as a product innovation measure), and especially on the more ‘incremental’ (i.e. less radical) ones.

In a multi-country studie. Spiezia (2011) reported the findings of separate investigations of the effects of ICT on the firms’ capabilities to innovate that was performed under the coordination of the OECD. The investigation teams used large datasets for firms from seven European countries (Italy, Ireland, Luxembourg, Netherlands, Norway, Portugal, Sweden, Switzerland and UK) and Canada. The findings support the hypothesis that ICT as an enabler of innovation, particularly for product and marketing innovations, in both manufacturing and services. However, no evidence could be found that the use of ICT increases the capability of a firm to develop innovation in-house or to introduce products new-to-the market.

Finally, in a study for 112 Taiwanese firms Chang et al. (2012) found a positive relationship between organizational capabilities (openness capability, autonomy capability, integration capability and experimentation capability) and radical innovation performance.

4. ICT AND COMPETITIVENESS IN THE TOURISM INDUSTRY

Some authors believe the primary role of IT in the hotel industry is to improve productivity (Ham, Gon Kim, & Jeong, 2005). Many tourism and hospitality researchers claim that ICT is a competitive advantage factor (Buhalis, 2003; Polo Pena & Frias Jamilena, 2010; Camison, 2000; Sunil and Islam, 2005; Luque-Martinez, Castaneda-Garcia & Frias-Jamilena, 2007; Buhalis, 1998; Sheldon, 1997; Ma, Buhalis & Song, 2007). These authors understand ICT as the hardware and software, the groupware and netware as well as the intellectual capacity (humanware) to develop, programme and maintain the related equipment. Indeed, different kinds of the abovementioned “wares” such as super and mini computers, office applications, the Internet, intranet, central reservation systems (CRS), satellite and mobile communications, etc. have been adopted by hotel companies to improve their operational efficiency and competitiveness (Buhalis, 2003).

The Internet has received significant attention from entrepreneurs, executives, investors and business observers and many have assumed that the Internet changes everything about companies and competition. Internet banking, for example, has changed the traditional banking culture and brought competitive advantages to ICT-advanced banking firms (Yiu, Grant & Edgar, 2007). Another example in the airline and tourism industry is the use of CRSs (computer reservation systems) that have permanently changed the way of doing business in these service-based industries (Buhalis, 2004).

Similar changes soon followed in the hotel industry and ICT became the key issue for the future of the hotel business (O’Connor & Frew, 2002). In 2000 US hotel managers

saw IT as a mechanism to obtain competitive advantages, mainly through improved employee productivity and enhanced revenue generation (Siguaw, Enz, & Namasivayam, 2000).

The question is whether ICT should be seen as an independent intangible competitive resource or factor, and how is it linked to profitability. Some studies, mainly in OECD and some transitional economies, provided empirical evidence based on the production function of the link between ICT and rises in productivity, which proved to be stronger in service sectors (Stare, Jaklič & Kotnik, 2006). This can be linked to the new business opportunities offered by ICT and it seems that they are creating a new potential source of competitive advantage and profitability.

Tsai, Song and Wong (Tsai et al., 2009, p. 537) studied competitiveness in the hotel industry and concluded that “information technology (IT), such as the Internet, intranets, and central reservation systems, is one of the crucial technology investments that are often made by hotels to improve performance”.

- **Accommodation and ICT**

ICT are increasingly recognised as a critical part of the strategic management of accommodation organisations irrespective of size (Buhalis, 2003 p51). Studies of the significant intra-firm impacts of new technologies have been paralleled by broader analyses of ICT ability to alter distribution network and global industry structures (Nodder et al, 2003).

Internally there has been a focus on the impact of technologies in both front office and back office areas with an emphasis on point of sale (POS) technologies, in-room entertainment, back-office accounting, human resources management and supplier relationships (Anon 2002b; 2003b, Baker and Sussman 1999).

Emphasis on the broader impacts of ICT has been placed on airline-based Global Distribution Systems (GDS) and Computer Reservation Systems (CRS), Property Management Systems (PMS) and Destination Management Systems (DMS) (Milne and Ateljevic 2001). The latter have been used by enterprises to enhance performance in the global distribution channels that dominate international tourist flows, and to create seamless integration between internal technology use and the outside world (Go and Pine 1995; Gray et al, 2000).

In simple terms, tools that facilitate the transmission of information and a level of interactivity between tourism operator and consumer are indispensable to each stage of the tourism value chain, especially when considering distribution and the ability to enter new markets (Buhalis 2001a, b).

The relationship with the customer can therefore be enhance at the information gathering and pre-arrival stage, during the arrival, check-in and stay stage, and also in the departure and post-stay stage. The ability to ‘mine’ data gathered from clients and to measure the performance of individual workers and departments also makes it easier to

benchmark, compare and contrast performance across global boundaries while also creating localized improvements (Van Hoof 1996, 2003).

Technological innovation is also depicted as an improvement in a product or service performance in terms of quality, cost, speed or number or characteristic (Cohen & Levinthal, 1990). The technological innovation within the tourist accommodations activity has to capture the particular and differential features of sector, characterized by the nature of the service.

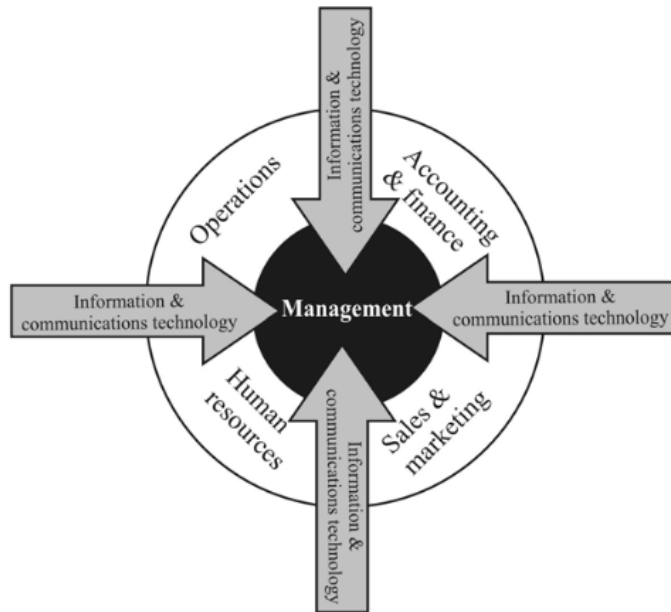
According to Gallouj and Winstein (1997) there are some aspects that characterize service and have a great influence on the definition of technological innovation. Those can be relevant to the accommodation sector in the following ways:

First, there is a close interaction between production and consumption (coterminality) that makes difficult the typical product and process manufacturing distinction. The coterminality implies that the innovation activities will focus on service individualization, adapting the service provided to the customer requirements. Moreover, the coterminality leads to a higher degree of service heterogeneity – the exchange object differs from one case to another. Only institutional changes, effectively implemented as a business strategy, must be regarded as technological innovations, and not those spontaneously generated and derived from human interaction. This characteristic fits on the hotel set of services provided to their customers.

The second is the intangibility and growing information contents in the provision of services. The information and communication technologies play a critical role in the innovation activities of tourist accommodation businesses: to reach the potential customers with information that helps to get the deeper understanding of the service purchased; to reach the largest share of the demand; to obtain and process the information for a better business performance.

Changes in the organization architecture can be linked to the introduction of new technologies, and should be included as technological innovation activities. These organizational issues are relevant in the accommodation industry to fulfil the services requirements.

As Weiermair (2001) notes, Information and Communication Technologies play an integral role in enabling tourism operators of all types to “act local and think global”. Information and Communication Technologies have been claimed by many commentators to be the backbone of the tourism industry (Wong 2001; McCann 2001; Applebee et al, 2000; Connolly and Olsen 2001) and accommodation is no exception to this rule. ICT is seen as a vital, and often somewhat overlooked, element that shapes and underpins management of operations, human resources, sale and marketing and accounting and finance (figure.1) Indeed ICT is seen more and more as an enabler of competitive improvements for both small and larger enterprises alike (Anckar & Walden 2001; Gretzel and Fesenmaier, 2000).



(Connolly and Olsen, 2001, 87)

Figure 1: The integral role of ICT in the accommodation sector

5. THE IMPACT OF WEB 2.0 IN TOURISM INDUSTRY

In few years the relation between ICT and tourism is changed in a very fast and differential way. Now we are able to talk about “community” and we can use the term “Travel 2.0”. Search information, share photos and spread your opinion about the destination is going to be more and more immediate: it is a change from a static system to a dynamic and interactive one (Olery, 2012). Several new technologies as e-commerce and e-ticketing changed the way of travel.

According to World Tourism Organization Business Council (WTOBC,1999), «Enterprises start to optimize the policy functions, to beat down the costs and to amplify the costumers’ services. The World Wide Web (WWW) starts to become the field of the Destination Marketing Organizations which looks at the internet like an ideal medium for trading and promoting ».

These changes allowed creating an interactive way to communicate where the knowledge is shared and the costumers are beginning to cover an important place and being more than a simple consumer. In last few years web marketing is compulsory, especially in the field of tourism where the promotion of a touristic destination in the cyberspace has become the real image of the place itself.

Over recent years, the mobile phones are becoming more and more important for the places reviews, due to the geolocalisation and for reaching information. The new way to live the travel has become like a circular way: Inspiration-Research-Planning-Decision-Reservation-Travelling-Sharing. The traveler now is considered with his own marks of references (Know the single person is important) like a single consumers with their own marks of references, who uses internet in order to travel, because the world of tourism is a mix of different platforms of communications and trades (Beltran, 2010).

5.1 web 2.0 to promote and capture the attention of visitors

S. Reino and B. Hay (2011), investigate the use of YouTube as a tourism-marketing tool from tourism organizations point of view and the tourist perspectives. The tourism organizations regard Youtube as a useful marketing tool for the accommodation sector since it allows them to create promotional videos, which could then be visualized by people searching for them on YouTube. However, despite the large number of visitors that this platform can receive daily, approximately 30% of the analyzed videos contained tourism-related information. This value varies depending on the type of institution (public or private) and the country where the query is made. Moreover, authors comment that YouTube can offer to tourists the opportunity of searching for very specific activities, watch reviews, and seek help or advice about their destination. They predict that YouTube will keep growing in popularity, and will become an important tool to consider in this field.

5.2 Web 2.0 and hotel industry

First of all, we can talk about the new way to look at the accommodation reservation. An example of Spanish analysis of the new kind of competition in this industry is the work, published by F. Calero et al.. This work gives importance to the strategic marketing plan by surveys on touristic technologic profile and customer demand has got the aim to identify connection between technological development and accommodations. According to them new enterprises activities are strongly influenced by a bind between ICT, web services and tourism, connected with the offer and the demand. An offer that does not have a technology infrastructure is left out from the business.

The ICT, in the last years, has been changing from an information aim into a quality control. The hotel reviews published by the costumers in different websites have become more and more important. The historical one-way relation between business and consumer now is an interactive communication: the client can give information and opinions about services and act an immediate control in everything he is using. The accommodation reviews and the judges on hotels and other touristic activities are provided by many website. Tourism 2.0 (related to web 2.0) seems to be in a continuous evolution and tourist enterprises must always be prepared to communicate with more expert and exigent consumer. The new phenomenon of the comparisons websites (like Tripadvisor and Booking) is accompanied to the new requirements of reliability and security which consumers seem to look for during online operations. In this context operators try to invest stronger effort on their own websites with e-booking and e-commerce systems. In fact, the new purpose is to reduce the distance between travelers by giving important to self organization of holidays. Geolocalisation, online promotion, good reviews, advertisements, free accessibility for getting information and transport organization are key-words to look at the onlinecostumers who wants to reduce costs

and organize in every detail in their travel. Security of economic transactions and researching of information are also essential in this context. The so visibility and promotion have to be accompanied to a strong operations control and a very qualified online expert [2].

The web 2.0 is changing the existence of enterprises the ICT and they are so important for the enterprises development because:

- ✓ The nature of the products/services are commented by users and it's a way to meet them
- ✓ The digital communication is referred in a defined way to young people, which is an important sector of trades.
- ✓ IT permit to create relations between users and to place the products/services in the market
- ✓ IT is a way to create, apply and control a marketing and communication strategy (J. Celaya and P. Herrera, 2007).

5.3 Social media

Social media tools are changing the way people communicate. Advances in mobile technology have made social media more accessible, allowing to become a part of people's daily lives and routines, (Mangold & Faulds, 2009).

Blackshaw (2006) describes social media as the internet-based applications that carry consumer generated content that is relevant to the past experiences or any source or online information issues. Individuals and groups create and exchange content and engage in person-to-person conversations. They appear in many forms including blogs and micro blogs, forums and message boards, social networks, wikis, virtual worlds, social bookmarking, tagging and news, image and video sharing, etc. (Coxet.al 2009).

The tourism and hospitality industry is not an exception and hence a growing number of hotel professionals and researchers have acknowledged the importance of Web 2.0 for the sector and potential benefits that it provides, (Gretzel et al., 2000; Hjalager, 2010; Ruzic & Bilos, 2010).

There are several dozens of social networks and their number keeps growing by the day. The most popular ones are Facebook, Google, LinkedIn, Skype, Yelp, Bing, Twitter and Trip Advisor, but there are scores of others. Managing hotel reviews, both positive and negative is certainly a priority for managers. A discussion on the positive and negative aspects is imperative to realize the extent of the impact of social media. The reviewing sites can have relatively more impact than the enhanced communications sites such as the Facebook or Twittter sites (Rowe, 2011). Allowing two-way communication, interaction, and creation and exchange of user-generated content (UGC), the social web has completely changed the world marketing landscape by revealing some significant opportunities for word of mouth and viral marketing (Tuten, 2008). Social media

presents a golden opportunity for the hospitality industry to make greater contact with its customers, with an ultimate goal of developing a partnership for brand growth and development.

People are motivated to use and engage in social media for several reasons (Safko, 2010). Many studies have applied the theory of uses and gratifications to explain the reasons for the use of social media. The uses and gratifications approach seems to be applicable for analyzing people's use of social media as the approach is particularly appropriate for examining the usage of new types of media such as the Internet (Muntinga et al., 2010).

There are different ways social media can be used to benefit the bottom line of an operation, whether it is food service, hotels, amusement parks, hospitals, or any other affiliated hospitality business. Rowe (2005) has listed seven ways one should be leveraging social media which include: (1) Solicit endorsements; (2) Maximize revenue per seat (3) Bond with guests (4) Manage reputation (5) Reach out to new customers (6) Recruit new staff; and Build a buzz (Payne & Frow, 2005).

Considering all the benefits that social media can provide, it has all the attributes that will be helpful in marketing and management. This is particularly important for hospitality and tourism field since they are people professions. Social media is an option for hospitality industry since it provides opportunities to manage and present business content and it helps in identifying core values that draw clients and customers to business. Most companies would benefit from a cohesive strategic plan that will integrate social media efforts with overall marketing effort. Engaged customers spend more money and return back to business more often. It also helps in brand awareness and building brand equity (Roberts, 2012).

There has been much written on the level of activity by bloggers sharing travel experiences, recommending preferred accommodations, offering critiques of restaurant ambiance and service, as well as hospitality companies monitoring and contributing to self-sponsored sites. The attractiveness and impact of social media has exploded in popularity as consumers turn to online networking to share ideas, suggestions, photos, videos and diaries, while developing friendships within a virtual community (Lim 2010).

Leveraging of social media to market tourism products has proven to be an excellent strategy. Many countries regard social media as an important tool to promote their tourism industries (Zeng, 2013).

Gilles Barbier (2007) explains that with top-down information, from the company to the consumer, the information is limited in size, with a restricted choice of destinations. On the other side, with web 2.0 other destinations could be promoted through members of hundreds of travel communities. Another key element of social media as a marketing tool is that very often it's the users themselves who create the content –lending it a community aspect that no other form of advertising and promotion can match (Zeithaml et.al 2006).

The tourism industry has changed dramatically with the overwhelming emergence of social media platforms. Due to the nature of a travel product –it is experiential, and often a material commitment in terms of money or time –people have long shared their travel experience and social media just facilitates this (Buettner 2011).

Marketing and promotions are changing their dynamics, moving from passive advertisements on television to new horizons of online social media. Users are becoming more mobile and their roles are getting active in ongoing relation with the media. Participation of consumers is resulting in user generated content which is tapping into new marketing dimensions (Ranjha, 2010).

Long established rule of promoting tourism through traditional media is slimming down. Now clients prefer to collect information online from various interactive web pages and networks according to their needs rather than driving to a tour operator or agency. By using these social communities, customer not only forms informational networks but social networks are also developed. These platforms allow potential tourists to collect desired knowledge from several sources as well as take advantage of other people's experience.

Social media for sustainable tourism was conducted purely on social media platforms. A consumer survey was done to understand key aspects of consumer awareness and consumer psyche towards sustainable tourism development. The study was then used to make the social media communication hexagon and broad recommendations (Kumar, 2011).

For decades in hospitality management it was used to say that once you do one thing bad ten people will know by the word of mouth. Social media has changed that proverb overnight as the “word of million mouths.” So rapid is the spread of communication that it can make or break businesses.

It is not plain communication but it leads to an interactive dialogue which creates a viral impact. Social media has the advantage of reaching global audience, even in remote corners of the world; immediacy with no time lag; easy accessibility by those receiving the communication as long as they can get their hands on a computer keyboard; twenty four hours, seven day operations thereby overcoming the time difference; and ubiquitous versatility for interactive exchanges (Khan, 2012).

The complexity of the Internet and social media has created some issues with the hospitality industry. Since the content of social media is largely consumer-based, it can make it difficult to filter through all the information that is available for consumers.

Searching for information through the Internet has been greatly influenced by large search engines that limit search results to only include the most “popular” social media sites (Leung et.al, 2013). The attractiveness and impact of social media has exploded in popularity as consumers turn to online networking to share ideas, suggestions, photos, videos and diaries, while developing friendships within a virtual community. While social networking can help strengthen guest loyalty and satisfaction, it can also lead to unfair negativity, inaccurate information and undue criticism (Kasavana, 2008).

Word-of-mouth is one of the most powerful tools used by advertisers to market their brand. And social media, due to its inherent functionality, provides a great platform for consumer testimonials. The success of a message depends on the genuineness of the comment as perceived by the reader. If readers are convinced that the testimonial is by a real consumer-someone who has not been endorsed by the company for promotion, then they build a higher confidence in the brand and are more likely to form a stronger bond (Dichter, 2006).

6. BEST PRACTICES

In this section, we will present different strategies of tourism 2.0 to share best practices of the use of ICT in tourism industry.

6.1 The Canadian Tourism Exchange

The Canadian Tourism Exchange (CTX) has been credited as one of the major reasons for the successful growth and expansion of that nation's tourism industry. This Internet based network of tourism operators (many of whom are SME) has provided a forum for tourism providers to establish connections and relationships, exchange ideas and access the latest innovations and market intelligence reports from a number of industry leaders (Gretzel and Fesenmaier 2000). It is this infrastructure that supports the linking and networking of clusters of tourism operators, industry associations, educationalists, community and firms - an infrastructure that is far more than simply technology and connectivity (Nodder et al 2003b).

6.2 « Louvre » museum, France

With more than 1 million fans in July, 2013, The Louvre became one of the the most followed institutions on Facebook, what places the museum in the second world position just behind the Museum of Modern Art (MoMA) of New York. The presence on the social media with the Internet users and the museogeeks has to serve the image of the Louvre, but also be translated on visits: the strategy of Niko Melissano, Community Manager of the Louvre Muesuem. An interview realized by « Travel Think » for « Next Tourisme », explains us the digital communications strategy for the benefit of the Louvre mueuseum:

On what social media are you subscribed and how? how is your popularity?

Niko Melissano. The Louvre appear currently on 8 social media: Facebook with over than 1.2 million fans, Twitter with followers 79,000, Google Plus with 175,000 followers, Instagram with 35,000 followers but also Pinterest, Youtube, Dailymotion and Bobler, a vocal social media.

We also hope to expand our presence on other platforms to reach all public. For example, the Chinese are in the top 5 foreign visitor of the museum, but in China,

WeChat is the social media reference. We need to reconcile the control of the image and the speech of the institution with the necessary response to this type of media. The breaking news of the museum as, the broadcasts dedicated to exposed artists, or special events, are published first Twitter where several subjects are relieved every day. The style on Facebook, where we publish on average one subject a day, is more laidback compared with Google Plus. Quizzes exist at the moment only on Facebook.

How do you favor the commitment?

The Internet users can post in particular photos following their experience of visit in the Louvre. It contributes to develop their feeling of membership in the Louvre community. We perform this network by suggesting to the users commenting on on-line publishing works. I shall also quote the organization of annual party Facebook in the Louvre where we invite 500 fans, as well as one party to the Delacroix museum with more than 200 guests.

What are looking for with your presence on the social medias?

On the one hand, we seek to incite our virtual visitors to cross the museum door. 50% of Louvre visitors are less than 30 years old, and the social networks allow to attract a more important part of this public, more distant from classic media. On the other hand, the social networks gave birth to ambassadors' movement of the museum. They became a precious vector within our call for donations. For example, during the campaign of restoration of Victoire de Samothrace, finished at the beginning of January, approximately 300 private individuals wished to become ambassadors by recruiting, among their close relations, via the social networks, funds for the campaign. so 15 000 euro were collected. This word of mouth encourages them to explore, to discover and helps to show the variety of offer of the museum. Finally, social networks are a very effective means to maintain a link with foreign public and assure an image of the museum internationally. In 2013, the museum has 9.2 million visitors, 70% of foreign visitors. American, Chinese and Brazilians are the most represented.

What are the avenues of development on the social media?

We wish to identify the top influenceurs of our on-line communities. It will allow us to refine our statistics. Internally, we develop the collaboration between the various services of the museum. across projects, Community Manager is identified better and better by the teams of the conservation, the communication, and the reception of the public, which will allow to be even more active.

6.3 « Mobitour » application in Augmented Reality (AR), France

The French tourist information offices offer several applications in AR to rediscover a city, a monument, a place. It is an advised digital device for the development of the historical and cultural heritage of France.

Mobitour allow to discover the site as it was in the Gallo-Roman or medieval period. It is a kind of machine to go back in time which allows us to go in search of missing tracks of the past. The functioning is simple: have a walk in the city with its mobile in the hand and see appearing on the screen reconstructions of missings buildings, in superimposing with the contemporary face of the city. This application provides a complementary service and allows mobile users to access practical information on the move, 24 hours a day. Mobitour is compatible with all smartphones.

CONCLUSION AND RECOMMANDATIONS

The technological revolution has changed dramatically the market conditions for tourism organizations. ICTs evolve rapidly providing new tools for tourism marketing and management. They support the interactivity between tourism enterprises and consumers and as a result they reengineer the entire process of developing, managing and marketing tourism products and destinations.

Innovative tourism enterprises have the ability to divert resources and expertise to servicing consumers and provide a higher value added transactions. The development of new and more powerful ICT applications empowers both suppliers and destinations to enhance their efficiency and re-engineer their communication strategies. Innovative technologies will support interoperability, personalization and constant networking.

According to an UN report (2001), “it is not the cost of being there, on the on-line market place, which must be reckoned with, but the cost of not being there...”. Thus, It would be a mistake for hotels and marketing destination organizations to not have a presence on web 2.0 in general and social media in particular. The amount of time consumers spend on social media can be utilized to present a destination image to consumers. It also serves as a way to converse with consumers and share information about updates, deals, giveaways. Agile strategies are therefore required at both strategic and tactical management levels to ensure that the ICT driven opportunities and challenges are turned to the advantage of tourism organizations towards enhancing their innovation and competitiveness.

From now on, we will speak about " Web 3.0" thus tourism 3.0!! New stakes are going to be born for companies which will have to adapt to these multiple dimensions at the intersection of virtual worlds and the real one.

FUTURE RESEARCH

Future research will focus on the following areas :

Measure the results of performance in terms of financial income, continuous sustainable innovations, satisfaction of customers and motivation of human resource (all types of ICT will be totally dependent on the human resource of the organization who will design,run and review the programs(Zaheer et. al.,2011).

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