

ELECTRONIC TOURISM BUSINESS MODELS¹

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ABSTRACT

The intensive use of information and communication technologies (ICT) in the tourism sector, especially due to the massive expansion of Internet services, has influenced the development of a new concept of tourism business that can be called electronic tourism (e-tourism). The tourism sector has, under the influence of ICT, significantly transformed towards the development of new e-tourism business models. Also, the use of ICT in tourism business affects the emergence of new electronic markets of tourism services. According to the type of participants in business transactions on the tourism electronic markets there are Business-to-Business (B2B), Business-to-Customer (B2C) and Customer-to-Customer (C2C) and Customer-to-Business (C2B) models of tourism business. Therefore, this paper presents business models that can be implemented in e-tourism.

KEY WORDS: ICT, e-tourism, e-tourism business models, tourism e-markets, Internet

INTRODUCTION

In modern business environment, the role of ICT in tourism business management is growing, so that there are increasing demands for the

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development and usage of sophisticated information systems in tourism. These high demands are the result of the following factors: global markets and the importance of destination; huge volume of transactions and tourism services adjusted to the specific requirements of consumers; structured, standardized data and multimedia representation; the significance of internal information systems and inter-organizational information systems; various categories of clients (consumers, small and medium enterprises, large enterprises); fragmented and consolidated markets.

The specific characteristics of tourism products, highly competitive market, and changes in consumer behaviour are the greatest challenges faced by tourism companies. However, ICT supports decision makers in overcoming these challenges. ICT facilitates almost unlimited spread of tourism information (global computer networks, web and multimedia technologies, etc.), so that customers have easier access to information on touristic services. ICT contributes to global presentation of the destination and the global connectivity of market segments. In the last two decades, the volume of information on travel and tourism has been increasing, due to the Internet and tourism websites. Internet and tourism websites give a lot of information for planning trips and holidays on the most important tourist markets and becomes primary source of information for tourists. More and more tourism services are based on the use of the Internet as the main communication channel, which allows the simultaneous decrease in operating costs and increase in the number of clients. In practice, this means that tourists have the possibility of direct communication with providers of tourism services and the ability to identify and meet the demands for tourism products. On the other hand, service providers can more efficiently meet the increasingly complex requirements of their users by offering a wide range of tourism services. Another important application of the Internet in the tourism sector, which helps in creating a complete image of the electronic tourism, is online supply, which is primarily related to the Internet purchase of goods or provision of services to the participants in the supply chain. According to the type of participants in business transactions on the tourism electronic markets there are several business models, such as: Business-to-Business (B2B), Business-to-Customer (B2C), Customer-to-Customer (C2C) and Customer-to-Business (C2B) model of tourism business. Before explanation of this models, the paper considers structure of tourism market with participants that play their roles on demand or supply side of tourism value chain. Also, a brief look to transformation of tourism markets by influence of ICT is made.

STRUCTURE OF TOURISM MARKET AND INFLUENCE OF ICT

Information flows through the tourism value chain connect all market participants and reflect the economic and market links between them. Figure 1 presents the information flows among various stakeholders on the tourism market. This figure presents the value chain in terms of information where each participant in the chain adds specific information (or value) that makes it easier for consumers to make decisions. Figure 1 also represents the structure of the market of tourism services. It distinguishes between entities (market players or participants) on the supply side and entities on the demand side, as well as intermediaries on both sides. (Werthner & Klein, 1999, p. 256)

On the supply side, there are primary suppliers of tourism services (for example, hotels, restaurants, etc.), which are in most cases small and medium-sized enterprises. Primary suppliers include other companies as well, such as organizers of cultural and sports events, which reflect the integrative role of tourism. These companies operate in local-context destinations, either regionally or nationally defined. However, the companies that operate locally are at the same level as big international players (for example, airline and railway companies).

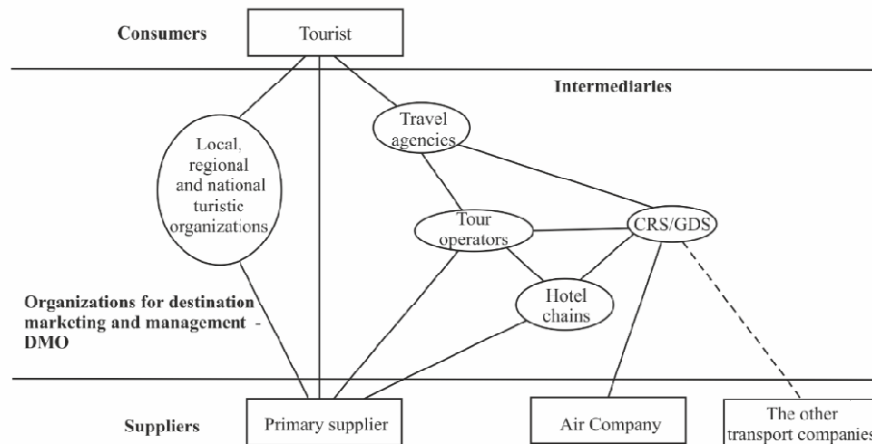


Figure 1. Structure of tourism market
 Source: Werthner & Klein, 1999, p. 258

Tour operators aggregate or create a new tourism service by combining basic services or elements of services. Travel agencies should be regarded as information brokers (intermediaries) that provide important information to the consumer and the possibility of booking. Computerized Reservation Systems and Global Distribution Systems (CRS/GDS) cover the offer of airline services and other relevant tourism products (for example, holiday touristic packages and transport by other means of transport). These systems provide the main connection to tour operators' and travel agencies' systems (Milovanović, 2010, p. 170)

Players on the right side of Figure 1 can be seen as an intermediate link between suppliers and consumers. Intermediaries on the left side of Figure 1 are important “for destination management, planning, administration, marketing, and branding of destination. In most cases, these entities have to work on behalf of all suppliers within the destination but are not included in the booking process” (Werthner & Klein, 1999, p.258). Marketing and management organizations at the destination level are often established by the state (government) where the destination is located. They can be local, regional, and national tourism organizations.

As already noted, the tourism sector has, under the influence of ICT, significantly transformed towards the development of e-tourism and the emergence of new electronic markets. This transformation encompasses both sides of tourism value chain (demand and supply side) and can be illustrated by various statistics, as we can see in table 1.

Table 1. Statistics of Internet influence on tourism sector

Parameters	Percentage
Customer issues	
Expansion of customers base because of Internet capabilities	15%
Percentage of Internet sales orders that are perfect orders*	89%
Percentage of visits of web site that are converted into orders	8%
Supplier issues	
Percentage of purchase orders done over the Internet	16%
Percentage of strategic suppliers sourced over the Internet	16%
Percentage of strategic sourcing dollars spent over the Internet	16%
Electronic market	

Percentage of sales orders conducted via an e-marketplaces	16%
Percentage of purchase orders conducted via an e-marketplaces	8%
E-business revenue	
Percentage of revenue achieved via the Internet	8%
Percentage of orders received online	9%
Percentage of revenue growth in last fiscal year resulting from the Internet	9%
How much Internet revenue is expected to grow in the current fiscal year	39%
Cost cutting	
Cost reductions from indirect materials procurement on the Internet	7%
Cost reductions in customer management via the Internet	8%
Cost reductions in fulfilment and delivery via the Internet	9%
Figures are averages for InternetWeek 100 companies in this industry *Orders that are fulfilled accurately, on time and right quantity <i>Sources: InternetWeek, Benchmarking Partners</i>	

Source: Anandkumar, 2014

TRANSFORMATION OF TOURISM MARKETS INFLUENCED BY ICT

The transformation of tourism markets is also reflected in changed role of some participants and emergence of new ones in the markets, such as: 1. Elimination and bypassing of intermediaries, such as travel and tourism agencies; 2. Emergence of new intermediaries, such as online booking servers; 3. Emergence of specialized information intermediaries, such as online client agents, and 4. New role of destinations. (Porter, 1985, p. 173; Werthner & Klein, 1999, p. 259)

1. Elimination and bypassing of intermediaries (disintermediation).

Traditionally, travel agencies and tour operators used to play a major role in the tourism sector. The wide application of information technology in the tourism industry has changed this situation. What happened was that their size and importance in the real world became irrelevant for the Internet business, where business model is based on direct contact with customers. To cope with this challenge, increasing number of travel agencies expand their business forms, by creating their own web portals or participating in other portals and again becoming intermediaries between service providers and tourists. In addition,

major airlines, faced with increased competition and price pressure, have developed Web sites through which they carry out direct sales strategies. Some of them are careful and do not eliminate their established distribution partners (travel and tourist agencies), while others aggressively pursue this direct sales channel, regardless of the classical distribution channels, and thus become powerful players on electronic tourism markets.

2. Emergence of new intermediaries (reintermediation). Emergence of the so-called on-line booking servers is more important and potentially jeopardize the business of travel and tourist agencies. They act as virtual travel agents or online travel supermarkets that enable booking of airfare, hotel accommodation, car rental, and holiday packages, as well as many additional information services. Within the tourism value chain, they are considered new intermediaries, which establish additional distribution link from CRS/GDS to the consumer, bypassing travel agencies.

Booking servers are established by traditional tourism firms (for example, Sabre with Travelocity), as well as new market players (for example, Microsoft with Expedia). The full scope and attractiveness of travel and tourism market, combined with low market entry barriers, attracts new players outside traditional market (these are, in particular, media and ICT companies, such as Bertelsmann or Microsoft). This *booking* server development strategy, however, requires constant and large investment, because global competition implies permanent innovation in the field of ICT, tourism products and business processes.

3. Emergence of specialized information intermediaries (infomediaries). In addition to the above-mentioned business models (direct sales and virtual travel agents and supermarkets), there are innovative web business models and new e-tourism segments that combine flexible pricing and customer advising. Companies that implement these models can be called online client agents. For example, Priceline (<http://www.priceline.com>) allows for inverse auctions, where customers specify their travel plans, and a travel agent makes an offer that meets these plans.

Information intermediaries strategically position their applications to generate benefits for customers and suppliers, which cannot be realized through the direct sales model. The roles of these intermediaries are to decrease coordination and communication costs for buyers and sellers, generate volume for suppliers, collect homogeneous demand to provide customers with the opportunity to use suppliers' volume-based discount, increase the likelihood of fulfilling

customers' orders, and separate or even isolate coordinating mechanism from other sales and distribution channels.

4. *New role of tourism destinations on electronic markets.* In the process of the tourism market restructuring, a special place belongs to destinations. Destination is a geographically limited space that satisfies tourism needs and requirements of common or specific target groups of tourists. From an economic point of view, the destination is part of the market where a lot of different companies (small and large) compete and cooperate at the same time within a limited space.

Destinations still have major problems in closing the cycle (loop), starting with the planning of the travel process and ending with the booking for private consumers. It is because of specific political and organizational constraints, but also because of the lack of agreement on business and cooperative model for the whole destination. Most destination websites are only information servers, where booking is not supported. Destination web sites that provide booking can avoid conflict with private companies by using different cooperation strategies.

B2B MODEL OF E-TOURISM

Internet, with its digital channels of communication, plays an increasingly important role in the tourist destination selection process. This is particularly important for B2C markets, where passengers can quickly and easily explore a potential destination independently, and reserve travel, accommodation, restaurants and entertainment. The B2B market in the tourism sector has somewhat slowly accepted digital communication channels, so we have different situations where some markets have an efficient digital B2B platform, while others are yet to accept digital channels and use the full potential of the Internet. In order for B2B model of e-tourism to reach the level of development of the B2C model, tourism companies should use Internet communication channels more effectively. B2B platforms based on the Internet can improve the overall strategy of the tourism sector if the content is focused on specific areas of business, if it increases interactivity, enables content sharing and if it is adapted to emerging markets and different cultures.

With a strong and innovative digital B2B marketing and communication strategy, tourism companies and organizations can more efficiently present their products, achieve competitive advantage, easier operate electronically and make the tourist destination more attractive.

Increasing competition in the distribution of tourism services promotes the transformation of business processes and encourages innovation, which further requires improved use of ICT at management level (Scavarda, Lustosa & Teixeira, 2001). E-procurement is a good example of applying innovative information technology in the tourism sector, which means that tourism companies perform purchase of products and services over the Internet. The main goal of e-procurement is that the entire procurement process takes place online, improving collaboration with suppliers and business partners, and enabling a simplified and automated purchasing cycle. E-procurement provides a great opportunity for reducing costs and can contribute to the success of the tourism sector. Information technology used in e-procurement is not only an important management tool, but also an integral part of the Supply Chain Management (SCM).

Although tourism companies have been trying for decades to reengineer their procurement process through various information technologies, the right opportunity to achieve this goal is to use e-procurements over the Internet. Considering that revenue growth is often the main concern of corporate executives, e-procurement can reduce the concerns of executives operating in the conditions of economic stagnation. In this way, the cost component, which significantly impacts e-procurement strategies, can be the key component for creating profit in difficult circumstances. The value of e-procurement lies in reducing costs which may have even greater impact on increasing profit than the increase in revenue.

B2C MODEL OF E-TOURISM

B2C model of e-tourism is characterized by the use of IT in the planning (information gathering) and booking of trips, presentation of tourism information, offering online booking services and other transactional services (for example, e-payment), and analysis of information on tourists' preferences. Information technology is mostly used in digital marketing and online sales. Direct contact with end users of tourism services via the Internet and other channels makes it possible to more efficiently collect information about customers, in order to form a complete profile of each customer. On this basis, customer relationship management (CRM) and "one-on-one" marketing applications can be developed. Most of these activities take place at the stage prior to the trip, i.e. before the realization of certain services, and this part of the

market is already well-developed. However, in the next phase of the trip, i.e. tourist's stay at the destination, ICT is not yet fully exploited. Like other newly opened markets, this provides many business opportunities that often carry the risk, but also good chances for success. The latest advancement in the field of wireless (mobile) technology has brought new services into the tourism sector: mobile electronic services based on the location of tourists. (El-Seoud& El-Sofany, 2010).

The highest value of sales in the e-commerce of tourist services is achieved in the sale of travel arrangements, led by the sale of air tickets. The data in Table 2 highlights the size, volume and growth of B2C e-commerce in the field of travel and tourism. Table 2 shows the dominant growth of online travel sales around the world, as well as the increase in online sales in total sales for the period 2010-2016. In addition, the volume of sales and the participation of online sales in total sales across the continents is shown, with special reference to BRIC countries, in the same time period.

Table 2. Volume and growth of B2C e-commerce in travel and tourism

	2010	2011	2012	2013	2014	2015	2016
Volume of global online sales trip	\$309 billions	\$340 billions	\$374 billions	\$408 billions	\$446 billions	\$483 billions	\$523 billions
Annual growth on global level	10%	10%	10%	9%	9%	8%	8%
% of total sales trip	35,9%	37,1%	38,9%	40,4%	42,3%	44,2%	46,2%
USA	\$139 billion, 54,7% of total sale	\$113.9 billion, 52.3% of total sale	\$126.3 billion, 51.5% of total sale	\$136.4 billion, 51.1% of total sale	\$160.12 billion, 51.6% of total sale	\$177.64 billion, 52.6% of total sale	\$182 billion, 53,9% of total sale
Europe	\$118	\$129	\$141	\$150	\$146	\$135.96	\$176

	billion, 40.4% of total sale	billion, 42.6% of total sale	billion, 45.1% of total sale	billion, 46.5% of total sale	billion, 47.8% of total sale	billion, 48.8% of total sale	billion, 50.2% of total sale
Asia-Pacific	\$44 billion, 17.2% of total sale	\$67 billion, 20.1% of total sale	\$79 billion, 23.3% of total sale	\$91 billion, 26.6% of total sale	\$116.33 billion, 30.1% of total sale	\$140.92 billion, 33.6% of total sale	\$131 billion, 36.8% of total sale
South America	\$8 billion, 13.8% of total sale	\$11 billion, 17.5% of total sale	\$15 billion, 22.2% of total sale	\$19 billion, 26.8% of total sale	\$24.96 billion, 31.3% of total sale	\$29.83 billion, 35.1% of total sale	\$34 billion, 39.0% of total sale
BRIC	\$26.48 billion	\$40.00 billion	\$52.91 billion	\$65.11 billion	\$75.78 billion	\$84.96 billion	\$93.65 billion

Source: Anandkumar, 2014

Growth of online sales trip according to Compound Annual Growth Rate (CAGR) in BRIC countries for 2011-2016 time period is: Brazil 18.2%; Russia 9.8%; India 30.6%; China 14.1%, comparing to CAGR achieved in the same time period in South Korea of 19.8%; Australia 7.4% and SAD 7.2%.

Online travel sales in BRIC countries means a total change from offline to online shopping among consumers in their markets. Brazil, Russia, India and China have specific differences in the volume of online travel sales and in marked variations of consumer behaviour. Some of the trends that distinguish these countries are:

- In Brazil, there is an insufficient offer of tourism products that limits consumers to domestic travel.
- Russia has far the lowest online sales of travel compared to other developing countries, despite the high GDP, but their consumers are passionate researchers of Internet travel.
- In India, consumers slowly adopt e-commerce in general, but travel is an exception. Online travel purchases include more than three-quarters of total e-commerce in India.
- The number of travellers who book travel online in China is low compared to the total number of e-commerce customers. However, tourists from China will spend more money on their travel and services, than the rest of the BRIC together, according to data for 2016.

While it is clear that BRIC countries share key characteristics of emerging markets, each country has different digital and demographic trends that affect the increase in online travel purchases.

C2C MODEL OF E-TOURISM

Standardized tourist services are usually bought by customers in traditional markets, where travel arrangements, airplane tickets and accommodation in hotels are usually sold. However, for more complex, non-standardized tourism products, additional services are provided by agents such as travel agencies that can offer information and support for purchasing decisions to consumers. The offer of additional services ranges from contact information, links, maps, price comparison to decision support applications. Therefore, in the travel and tourism industry, the dissemination of information is of key importance for the promotion of destination and location.

The Internet has become one of the key channels for communication and execution of business transactions. It is, at the same time, an ideal platform for collecting and sharing all kinds of information that many operators in the tourism sector have used to market and sell their services, which is shown by the growth of e-commerce tourism services. In any case, the ability of the Internet to disseminate information promotes the development of the tourism sector.

As pointed out earlier, value-added services in the travel and tourism sector are based on the exchange of information about the destination, the way of travel and the list of potential travellers that can form a community of customers. Collaborative Internet-based technologies can support knowledge sharing considering the common interest of the community of tourism service customers. The tourism and travel sector can benefit from the exchange of experiences of tourist service buyers with the establishment of C2C networks and portals where customer communities would communicate and share knowledge and experiences. Sharing travel experiences can be explicit through the distribution of objects, such as photos and videos, or implicit through recommendation and comments. In addition, both methods of exchange of experience can be combined. Experience is a form of acquired knowledge that is the most difficult to transmit and share with other users, as it is the case with the exchange of experiences within the community of tourist service customers. Communication technology plays the most important role in the knowledge sharing process. Sharing common knowledge is done on the webportals, and includes email, instant messaging, discussion groups, bulletin boards, chat platforms, personal site and electronic postcards. There are numerous widely used C2C tourism sites, and one of the most famous is Priceline (<https://www.priceline.com/>)

C2B MODEL OF E-TOURISM

Consumer to Business is an e-tourism business model where end-users create products and services that are purchased by businesses and organizations. This is completely opposite to the popular B2C model of e-tourism in which tourism companies offer products and services to end-users.

In the C2B e-tourism model, companies usually pay for a product or service to individuals. However, it also includes various forms of e-commerce in tourism, such as ideas generated by an individual (such as innovative business practice), which can, also, be used and implemented by a travel agency or organization.

Another possible form of the C2B model of e-tourism is a website where consumers define their needs and requirements, and different companies compete or make offers to meet those requirements. A reverse model of pricing is used where the customer determines the price of a product or service, which in particular affects the empowerment of customers.

OTHER E-TOURISM BUSINESS MODELS

The models presented above are the primary e-tourism business models, but they are not the only ones. There are several important models which are mixture or modification of presented models. Another model includes B2G (Business to Government), for businesses whose main clients are governments. In G2B model (Government to Business) government is interacting, imposing rules or giving permission to tourist service providers/agents (Businesses), so that they can work on tourism promotion. In G2B model government sales to private businesses, while in G2C business model government sales to the general public (consumers). Hybrid model Business to Business to Customer Model (B2B2C) describes companies that sell products or services to companies, which are selling it to consumers, all via the Internet. That means that business sells a service or product to a consumer using another business as an intermediary.

CONCLUSION

Internet and ICTs are playing very important role in facilitating global interaction among suppliers, intermediaries and consumers around the world, enabling global e-tourism market.

The Internet enables organizations to distribute their products and services directly to other organizations and consumers by a variety of new channels of distribution. The intermediaries, such as the sites of the online booking or the prices comparison, represent a serious threat to the traditional tourist agencies. A well-informed customer has the ability to find services which are compatible with his demands. Potential customers become more and more independent and sophisticated in using a large set of instruments through which they are planning their trips. Some of the most important instruments are reservation systems and the online touristic agencies, the systems of destination management, the social webs and the web search portals, the sites that offer the possibility to compare prices etc.

According to the World Travel & Tourism Council, the total contribution of Travel & Tourism to GDP (including wider effects from investment, the supply chain and induced income impacts) in 2017 was 10.4% of GDP and is expected to grow by 4.0% in 2018. It is forecasted to rise by 3.8% by 2028 to 11.7% of GDP. Therefore, it can be concluded that e-Tourism, with presented business models, is becoming very important part of modern business.

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