

## **The Impact of Information and Communication Technology (ICT) as a Key Factor of Tourism Development on the Role of Croatian Travel Agencies**

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### **Abstract**

*This paper seeks to understand the mission and the usage of ICT through its influence on the development of tourism subjects supply, especially intermediaries on tourism market. The occurrence of the phenomenon of tourism is the result of socio - economic conditions related to the development of technology and innovations. The first part of the paper gives an overview of the theoretical insights that complements the thesis on the role of technology in tourism, including its associated subjects that tech methods used in context of transformational change in their internal and external environment. The second part of this paper, based on the results of a survey that was conducted in the Croatian travel agencies, explores the role of technology in the business of travel agencies through the reviews of managers. Results of the research indicate the new trends in activities of travel agencies that influence the development tendencies of intermediaries.*

**Key words:** ICT, transformation process, importance of new technologies, travel agencies

### **1. Introduction**

Multiplicative effects of tourism are apparent through the economic effects, various development effects in the form of incentives for employment and social prosperity by implementing and coordinating the activities and services. This also refers to those companies which have been indirectly related to tourism. Previously emphasized involvement of entities, such as entities that implement their mission in collaboration with the same type of enterprises or integrating with other subjects, seems very important, even crucial to the creation of value chain, regardless to geographic coverage and character of the business. This stresses the need for knowledge of new technologies. ICT offers the ability to foster improved competitive performance through network, clustering and formation of alliances as well as providing the richness of content increasingly required by consumers (Braun, 2008). Beyond buying, the integration of buying experiences, for example connecting the presentation of physical facilities, delivery processes, finance etc., as well as presentation that reaches customer segments in various new media mobiles, for example iPods, Facebook, is increasingly required (Alvarez and Sugijoto, 2010). ICT can bring business change depending on attitudes related to IT awareness, i.e. competence related to the application of knowledge in new technologies.

Appealing presentations of business products and travel destinations, sophisticated visualization of tourism products, the consulting role of travel agents, the social interaction and information exchange between travelers, as well as the information richness of the Internet are key features for successful tourism e – business (Berger et al. 2006). Competitive advantage of enterprises can be achieved by tourism managers who embrace new information technology and actively participate in the technology planning process to identify new users and manage their development (Moutinho, 2002). In the context of resource management within the internal environment of enterprises and the business activities of travel agencies, the importance of new technologies is emphasized in the area of cost reduction. In relation to changes of external environment, the competitiveness of travel agencies that use new technologies is based on performance such as information availability and transparency, facilitating the placement of products and services.

## **2. Literature Review**

Research into engagement of market subjects belonging to intermediaries, hotels, travel agencies, including micro – business in adoption of new technologies is very important. It has been a continuing theme on the national and international level. Adaptation of the new and sophisticated technologies to the market business process needs of travel agencies is based on substitutions of elements and resources in customizing business processes that are based on cost rationalization and automation of distribution. Using its applicative features, ICT allowed free access in adaptation of small entities to the wander market that used to be reserved just for major market players (Vidgen et al. 2004.; Kotelnikov, 2007.; Balocco et al. 2009). In the last fifteen years, an evident contribution of ICT in the field of tourism and travelling has been accomplished with necessary adjustments. (Sigala et. al. 2000; Paraskevas and Buhalis, 2002). Its significant impact is evident in the context of spatial and temporal convergence, which is clearly reflected in the reduced time required to achieve greater spatial mobility of people and information. Moreover, the process of globalization is to a great extent influenced by ICT which contributes to spatial and temporal convergence. (Knowles et. al. 2001; Mazarr, 2005).

At the same time, ICT boosts the globalization of industry by providing efficient tools for vendors to develop, operate and globally distribute their offer. (Buhalis, 2003). Smaller operators and tourist agents must use the exponential growth of internet users in their business through stronger partnerships and connections, and through the increased efficiency of their functions and high quality services based on the work and knowledge of specialized and trained personnel, which will be manifested in productivity growth. (Kogliah et al, 2008; Hashim, 2007.) Competences acquired through knowledge and experience, and presented through the ability to adapt, are the core of the strategic approach to the interaction with customers, suppliers, alliances, and network formations. The above-mentioned points result in the creation of a broad research area dealing with the significance of new technologies, interpretation of events, and attempts to predict future technological development.

The most important advantage of ICT is both availability of information to the increasing number of people and reduced production cost due to increased efficiency. (Kevin & Stiroh, 2003., 1-14). Knowledge is created, shared, and widely accessible. (Rooney, Hearn & Ninan, 2005., 116). Interested market participants share information, specifications, and production process beyond national borders, and thus contribute to greater transparency resulting in lower prices. At the same time, ICT enables companies to have access to a number of markets and to use global supply chains in a simple and acceptable way. Although ICT has a strong impact on all sectors, tourism is one of those that are highly sensible to ICT. (Shanker, 2008., 50 – 58, pp. 52).

Fast and synergistic interaction between technology and tourism has led to changes in the industry and in our perception. Information and communication industry is becoming a key player in the competitiveness of tourism entities and destinations, as well as in relationships which define the tourism system. (UNWTO, 2001). Development of web browsers, data transfer capacity, and network speed had an impact on a number of people worldwide who use technology to plan their trips. ICT driven business reengineering changes the structure of the entire system of tourism and creates a completely new range of opportunities and threats for all participants. It can be concluded that ICT has led to radical changes in terms of effective and efficient relationship of entities in tourism in two ways. The first relates to the manner in which businesses and clients interact, and the second refers to regulation of relationship among entities, thus determining business operation in the tourism market. (Buhalis, 2003., 67).

There is also opinion that the benefits of ICT in the mediation will be evident in the operating costs rationalization, and in the use of differentiated strategies that will individualize the mass market. (Buhalis and Zoge, 2007, 481 – 492, pp. 485). This could result in requirement to create new opportunities and new tourism products according to the criteria of high quality and personalized services (Egger and Buhalis, 2008., 327) accompanied by the creation of new “consumer area”. It is therefore assumed that the complexity and diversity of travel markets require innovative travel agents who offer solutions in multichannel management, while coordinating the processes so as to create the economic benefit based on a range of market opportunities. ICT has strongly influenced growth in tourism and travel industry in the last fifty years, especially in the field of automation of distribution and creation of new sales channels (Golob and Regan, 2001., 93), which prompted agents to change themselves by using transformed forms of communication and applying innovative solutions that used to be eligible only for direct channels.

Against that background, ICT had a strong impact in terms of creating opportunities – flexibility to create products with innovative tools, fostering awareness through the availability of information – in promotion and distribution of holiday packages. On the other hand, the understanding of indirect forms of tourism distribution system is shifting from the traditional linear model where products and services reached consumers indirectly through travel intermediaries such as travel agents (Lubbe, 2005., 385 – 396), whereby travel agents were viewed as intermediaries and conveyors of suppliers' products and services to consumers (Lubbe, 2005., 386). According to Vasudavan and Standing, travel agents have three basic tasks: (1) to perform the function of information broker, passing information between buyers and suppliers; (2) to process transactions, including printing tickets and forwarding money to suppliers; and (3) to advise travellers (Lubbe, 2005., 386). In that sense, travel agents were viewed as agents of suppliers who paid them commission for selling their services. However, new distribution system encourages travel agents to actively change the way they do business and hence establish significant competitive advantage. Travel agents with once restricted market coverage due to their size, now have access to a much larger market owing to new technologies. Golob points out that local travel agents who have used GDS (Global Distribution System) have adapted marketing strategies and expanded their services in an effort to realize an increased competitive advantage (Golob and Regan, 2001., 87 – 121).

Travel agents who successfully used internet as distribution channel had an easier access to global market. In such a way internet created the possibility to penetrate new market segments, and encouraged global alliance with the aim of enriching tourist offer, advertising and booking through cross-organizational booking systems. New distribution channels cannot be seen separately from other operating segments (Mamaghani, 2009., 365 - 375). In the domain of ICT development, displayed either through the possibilities that internet placed before a modern tourist, or through travel agents that derived benefit from the inclusion in GDS systems, there is an evident quantitative growth in traffic, accompanied by a qualitative transformation of travel intermediaries. Especially conspicuous are those entities that apply ICT in the creation of new offer and affordable trips. (Almandari, 2002., 341).

Travel agents have to adapt their websites and online bookings to the overall “experience” and expectations of tourists; moreover, future travel agents will have to keep up with competing destinations that offer user friendly activities, values and conveniences. (Mamaghani, 2009., 371). This way the technology does not change only one business segment, but with efficiency and performance of its innovative tools it bears upon the radical changes in distribution channel and/or methods of its implementation and promotion regardless of the market entity in question, thus leading to higher or lower competitiveness. Those travel agents who ignore new technologies or avoid their implementation (due to high costs or lack of staff expertise) reduce the possibility to compete and adapt to dynamic market environment.

Owing to the popularity of Internet applications, most travel agents accepted Internet as their marketing and communication strategy dominated by re-engineering model of relationship. (Özturan and Roney, 2004., 261; Buhalis and Law, 2008., 609 - 623). This phenomenon affected market activities of travel agents owing to the development of flexible products and services and advantages of World Wide Web (WWW) and its application for the purpose of promotion and sales. This clearly shows that the benefits of ICT are applied to the area of products and travel agents' distribution channels, which means distancing from traditional concept of distribution channels in tourism. Wolfe, Hsu and Kang point out that the reasons for avoiding on line shopping of tourism products lie in the lack of personal service, security, and lack of experience (Wolfe, Hsu and Kang, 2004., 55), and to this we can add psychological barrier, as well as too many products and services. This is proven by the fact that many travellers use Internet for information, while they shop off line. ( Buhalis and Law, 2008., 609-623).

However, the importance and role of modern technology in the travel agents' distribution system cannot be denied (both in the process of signing contracts and providing services), which is particularly pronounced in the potential distribution of service segments and integrated tourist products. On the other hand, the gradual increase in ICT dominance in the field of information about destination products and services shows what will be imperative in the future. This is evident in abandoning traditional ways of obtaining information, while at the same time travel agents try to keep pace with the competition by introducing innovation through multimedia and interactive video for promotion.

This is an additional incentive to involve ICT intermediaries with the aim to inform potential consumers about services, products, and destination. Social networks, forums, discussion groups represent a new platform for obtaining more information about services, which is useful both to tourists and travel agents, while the information about the characteristics of tourists, their expectations and experiences is easily accessible.

Due to the fast data transfer via Internet, the time spent on communication and agreement between agents and customers is greatly reduced. The satisfaction of tourists and their behaviour depend on the response of travel agents to online inquiries, and it is well known that responsible reactions and fast responses to enquiries are essential for success of small and medium enterprises. (Beldona, Morrison and Leary, 2005., 565; Pechlaner, Rienzner, Matzler, and Osti, 2002., 181).

### **3. Data and Methodology**

Preliminary research has been conducted in the Republic of Croatia in order to study the significance and role of ICT in the business of travel agents, as well as its impact on the development of travel agencies. In the original empirical research, questionnaire was used to obtain results as response to questions on the role and importance of modern ICT in business. These results are important for competitiveness and development of travel agencies. The questions were formulated in a way to meet the criteria of greater concentration of good responses within a set time frame, and were organized as follows: close-ended questions with response categories, and close-ended questions with a set of statements you agree or disagree with. The questions are simplified so that the questionnaire would be clear, while retaining the necessary level of complexity that allows the unambiguous understanding of questions. Characteristics of the analysed sample are the following.

*Elementary unit* of survey to be selected in the sample is defined as a business unit engaged in providing services related to intermediation and organization of tourist stay, and it is a foundation upon which business rests. In this survey, travel agencies are classified according to the criteria that are not exclusive and determine a number of specific business features. The survey encompasses travel agencies according to the following: region (Continental Croatia, Istria and Primorje, Dalmatia), dominant business function (organizational, intermediary), business type (emitting or initiative, receptive, emitting – receptive), business activity (wholesale, retail), organizational structure (without or with a branch network), the manner of occurrence in the tourist market (independent, dependent).

*Reporting units of survey* were travel agencies' board of directors. *Respondents* were people acquainted with all aspects of agencies' business activities. The workplace of respondent was primarily determined by the size of a travel agency; therefore respondents were travel agency managers.

*The target population* for the given study was defined as a group of travel agencies registered in the Republic of Croatia with operating results filed for 2009.

*Selection framework* contains a list of target population members, and it is usually in the form of lists and databases. Sampled travel agencies were selected from the Croatia company directory of the Croatian Chamber of Economy, available on the website <http://www1.biznet.hr/HgkWeb/do/extlogon>. In June 2010 we found 1350 business entities whose primary activity is intermediation in tourism (NACE 79 Travel agency, tour operator and other reservation services and related activities).

*Random sample* is drawn from defined selection framework. By means of random number generator 200 travel agencies were selected, companies were contacted by phone so as to verify their primary activity<sup>1</sup>, and willingness to participate in the survey. The questionnaire was sent by e-mail after phone conversation. 82 questionnaires were collected in this way and the response rate was 41%, which is acceptable for this type of survey. With regard to different features of travel agencies participating in the survey it can be concluded that their selection was representative. Results from the survey sample can be considered adequate for making relevant conclusions.

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<sup>1</sup> Before conducting the survey it was verified whether tourism intermediation is primary activity, as quite often companies perform other activities rather than those for which they are registered with the Commercial Court.

#### 4. Analysis and Discussion

Dynamic and uncertain environment changes the framework of travel agencies asking for their adaptation by accepting new challenges and opportunities in general management (placement method using ICT) and in private production of products in tourism – innovative travel packages. Intensive change in tourist offer with modern way of doing business based on responsibility, competitiveness and high level of demand for quality is finding way through travel agencies. Regardless of the form and outcome of changes, travel agencies show their willingness to adapt with the mere introduction of changes in their business. Respondents were asked to assess to what extent modern technology and informatization would be important in future business. (Graph 1).

Two-thirds of respondents (66%) say that modern technology and informatization will be essential factors, while one third (32%) point out that it is a factor that will change the role of travel agents in the tourist market. Less than one tenth of respondents (7%) think that modern technology and informatization will have no impact on the future role of travel agents in the tourist market.

Although the position of travel agents in the market is still irreplaceable, especially because of the intermediation and organization functions, due to the impact of globalization and modern technologies they operate in the conditions of constant changes to which they adapt on a daily basis, which is reflected in structural changes in the tourism market. The survey results point to the recognition of the role ICT will play in future business of travel agents. The role will be complementary, not substitutive where it is not important if professional staff - agency employees – use additional skills to launch products and services adding them new value and making them available and thus more attractive, or if new forms of communication, booking and distribution are used. That means an additional investment in education and vocational training of employees to acquire competencies that seem necessary.

Table 1. shows the characteristics of travel agencies considering the attitude on the implementation of the modern technologies and information technologies in future business activities

Modern technology and informatization is considered to be an indispensable factor by a high proportion of agencies in the category of wholesale - retail (72%) and branch network agencies (85%). Within these categories, there is a large disparity in agencies with regard to the subject of business and organizational structure. A very small proportion of travel agencies think that modern technology will not change the role of travel agencies in the market.

The respondents from Continental Croatia (69%) and Istria and Primorje (73%), with the highest percentage of responses, consider the application of new technologies necessary. In terms of organizational structure, the respondents from branch network agencies (73%) agree with this statement. The same goes for emitting and emitting-receptive agencies with dominant elements for initiative forms of encouraging tourists to take the trip, with regard to its organization, where creativity, which is implemented in the products, results from available sources of information, observing the market, and the possibility to launch them efficiently.

To further examine the attitude of respondents on the role of modern technology and informatization in business, respondents were asked to rate the importance of introducing modern technology in business (Graph 2).

A bit less than three quarters (72%) of respondents believe that introducing modern technology is very important. 17% of travel agency managers share the same opinion. Only 7% of respondents think that the importance of modern technology is limited, 4% think that it is insignificant.

Table 2. shows the characteristics of travel agencies considering the importance of implementing new technologies and information technologies in business activities

With regard to the type of business, it is clear that 100% of wholesale travel agencies think that the introduction of information technology is extremely significant, which is a logical response as the domain of well-known tour operators overlaps with the domain of capital-intense activities. Considering the high costs of creation and marketing of products, the application of ICT is a breakthrough that leads to the rationalization which is especially evident in time management.

Within all other categories of travel agencies 70% of them think that informatization is important. According to the regional classification within the same category the lowest percentage of respondents (55%) who share this point of view come from agencies in Istria and Primorje.

## 5. Conclusion

There is still a number of unknown and vague issues related to the specific relationship between tourists, tour operators, travel agents, and environment. The adjustment of travel agents is based on the analysis of changes in the environment and market trends which point to the specific behaviour of consumers. In line with these changes in the environment, a personalized service should be developed to meet the individual needs of tourists. Concern for the requirements of tourists should not stop when service is sold, but it has to continue with consumption of service, where ICT can help to realize this important business segment. However, **there is no system that can replace contact with travel agent** who verifies customer satisfaction, where loyalty is realized on a personal level. The **integration** of personal approach with ICT is significant, with new technologies having complementary and not substitutive function. Benefits of new technologies enable development of travel agencies and make communication with customers and other entities easier, which is the foundation for building competitiveness.

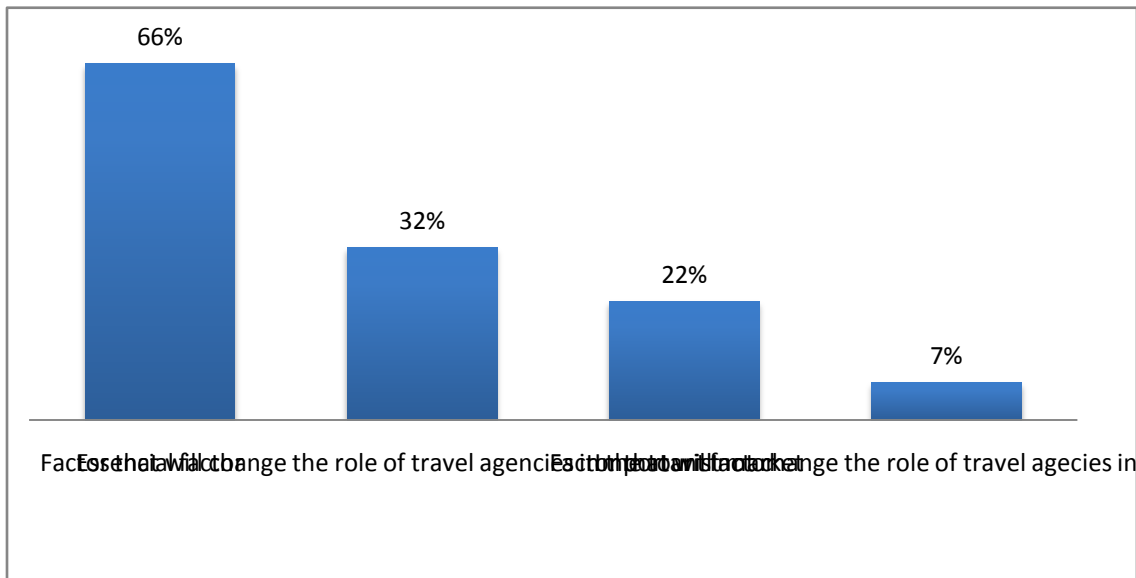
Results of primary research conducted among managers of travel agencies in the Republic of Croatia reveal the role of ICT in strategic formation of travel agencies in the context of understanding the necessity to apply ICT in all business segments all the way to the level of coalition of new technologies in the market through the launch of proper or someone else's products (travel arrangements) and/or services. Technology considered as a means of partnership, and not as a threat in the eyes of respondents, is a valuable result of this survey which shows that there is room for self-development of agencies and for overcoming the barriers sometimes created by technology due to knowledge deficit and low level of IT awareness.

Innovative tour operators will be able to reallocate resources and expertise towards customer service and to create more transactions. Innovative operators are those that keep pace with the trends of development, implement new technologies, continually educate their employees, and emphasize the importance of prompt response to tourist demand. The emphasis has to be on reallocation of resources and knowledge to maximize compliance with demands of tourists to provide added value for realized transactions. (Buhalis, 2000., 99). Development of new ICT will lead to a greater efficiency and reorganization of both communication strategies and business of tour operators. (Frias, Rodriguez and Castaneda, 2008., 165). This is the way to improve efficiency and promote interoperability and personalization, accompanied by constant networking of travel agents. Efficient time management is indispensable for competitiveness of travel agencies, while the use of ICT in all business segments facilitates activities which are prerequisite to the coordination of tasks and agency functions, whereas it must be said that partial efficiency of particular function impacts the overall business performance.

Well-known scientific standpoints test the endurance of traditional travel agents through the function of intermediation, while transformed intermediation reflects the changes in ICT. This is evident in travel agencies through changes in different business segments with the aim to improve efficiency with the synergistic influence of technology on the way services are provided. In this context, fear of disintermediation is redundant. It can be concluded that **technological innovations can be a source of competitive advantage for those travel agencies that take advantage of technological progress in their business strategy, while agencies that systematically ignore new technologies and their benefits will necessarily lag behind competition.**

**Appendix**

Graph.1 Share of examinees considering their attitude on the implementation of modern technologies and information technologies in future business activities



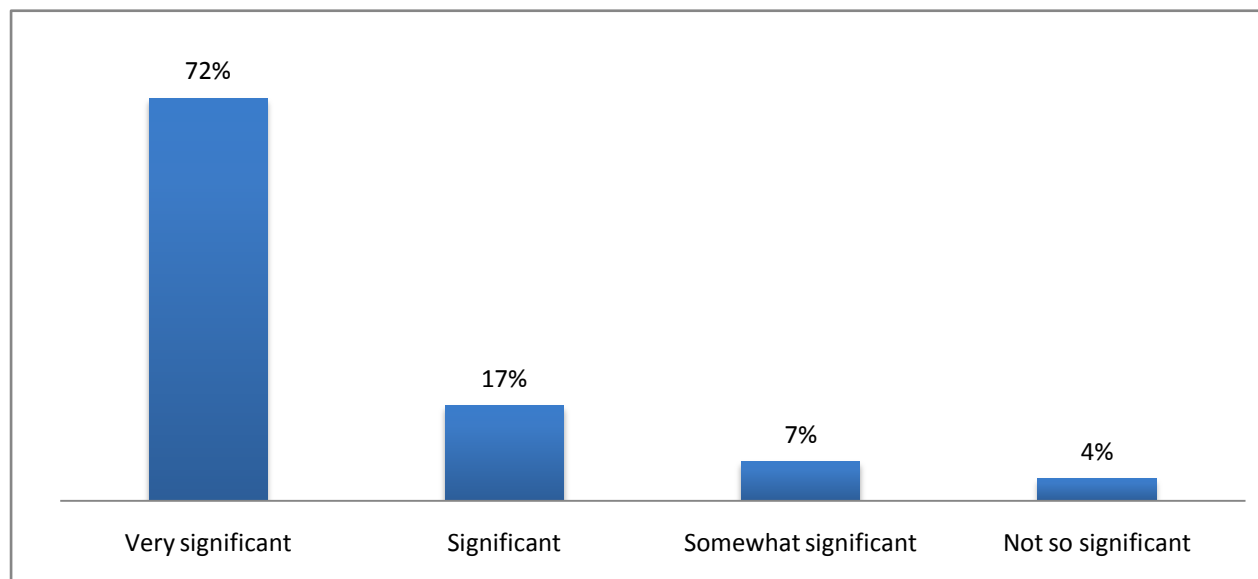
Source: Opinion poll conducted on the sample of the travel agencies in the Republic of Croatia, September 2010; field analyses by the author

**Table 1. Characteristics of the travel agencies considering the attitude on the implementation of the modern technologies and information technologies in future business activities**

		Essential factor	Factor that will change the role of travel agencies in the tourist market	Important factor	Factor that will not change the role of travel agencies in the tourist markets	Without Answer	Total	
							N	%
TOTAL		66%	32%	22%	7%	5%	82	100%
Region	Continental Croatia	69%	25%	22%	6%	9%	32	39%
	Istria and Primorje	73%	45%	9%			11	13%
	Dalmatia	62%	33%	26%	10%	3%	39	48%
Predominant Function	Organizational	63%	27%	27%	4%	8%	48	59%
	Intermediary	71%	38%	15%	12%		34	41%
Characteristics of Business	Outgoing/ Initiative	60%	10%	20%	20%	10%	10	12%
	Receptive	61%	45%	23%	10%		31	38%
	Outgoing - receptive	71%	27%	22%	2%	7%	41	50%
Object of the Business	Wholesale	50%	50%	100%			2	2%
	Retail	58%	39%	30%	12%	6%	33	40%
	Wholesale - retail	72%	26%	13%	4%	4%	47	57%
Organizational Structure	Without office network	60%	31%	24%	6%	6%	62	76%
	With office network	85%	35%	15%	10%		20	24%
The Ways of Presenting on the Markets	Independent	66%	30%	22%	8%	4%	79	96%
	Dependent	67%	67%	33%		33%	3	4%

Source: Opinion poll conducted on the sample of the travel agencies in the Republic of Croatia, September 2010; field analyses by the author

Graph 2. Share of examinees considering the importance of implementing new technologies and information technologies in business activities



Source: Opinion poll conducted on the sample of the travel agencies in the Republic of Croatia, September 2010; field analyses by the author

Table 2. Characteristics of the travel agencies considering the importance of implementing new technologies and information technologies in business activities

		Importance of Implementing New Technologies and Information Technologies in Business Activities				Total	
		Very significant	Significant	Somewhat significant	Not so significant	N	%
Total		72%	17%	7%	4%	82	100%
Region	Continental Croatia	72%	16%	9%	3%	32	39%
	Istria and Primorje						
	Dalmatia	55%	36%	9%		11	13%
	Organizational	77%	13%	5%	5%	39	48%
Predominant Function	Intermediary	73%	15%	8%	4%	48	59%
	Outgoing/ Initiative	71%	21%	6%	3%	34	41%
Characteristics of Business	Receptive	70%	20%	10%		10	12%
	Outgoing - receptive	71%	23%	3%	3%	31	38%
	Wholesale	73%	12%	10%	5%	41	50%
Object of The Business	Retail	100%				2	2%
	Wholesale - retail	76%	9%	9%	6%	33	40%
	Without office network	68%	23%	6%	2%	47	57%
Organizational Structure	With office network	73%	13%	10%	5%	62	76%
	Independent	70%	30%			20	24%
The Ways of Presenting on the Markets	Independent	72%	18%	8%	3%	79	96%
	Dependent	67%			33%	3	4%

Source: Opinion poll conducted on the sample of the travel agencies in the Republic of Croatia, September 2010; field analyses by the author



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