Original Article

Integrated marketing communications and information and communication technology in the hotel sector: An analysis of their use and development in Dalmatian first-class and luxury hotels

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Maja Šerić

is a PhD student of Marketing and the 'V Segles' scholarship holder in the International Economics Institute at the University of Valencia, Spain. She received her Bachelor's Degree in Corporate Communications and Master's Degree in Public Communications from the University of Padua, Italy.

Irene Gil-Saura

has obtained her PhD in Economic Sciences and Business Administration and is a Marketing Professor, chair holder in the Marketing and Market Research Department and active member of the International Economics Institute at the University of Valencia, Spain. Her investigation is focused on service marketing, consumer behavior and retailing.

ABSTRACT The concept of integrated marketing communications (IMC) has been recognized as a key factor in the marketing literature. Boosted by advancements in information and communication technology (ICT), IMC has received considerable attention during the past decade. The purpose of this research is to study in greater detail the IMC and ICT concepts in the tourism sector, specifically in hotels. The empirical study was conducted in 17 high-class hotels in Dalmatia, the largest region on the coast of Croatia. Descriptive statistics analysis showed a high degree of IMC and ICT implementation in Dalmatian first-class and luxury hotels. Moreover, the ICT application increased with the hotel category, whereas the IMC implementation decreased. The findings are expected to provide useful information to hotel managers regarding the degree of IMC and ICT adoption, in order to provide new management possibilities and gain competitive advantages.

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Correspondence: Maja Šerić
International Economics Institute,
University of Valencia, c/Serpis 29,
3rd floor, Valencia 46022, Spain
E-mail: Maja.Seric@uv.es

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INTRODUCTION

Since the early 1990s, communication integration has become the central topic in marketing communication (marcom) literature (Cornelissen and Lock, 2000, 2001) and after almost 20 years of investigation and debate continues to be a concept of great interest and importance for marketing practitioners and academics alike (Anantachart, 2004; Grove *et al*, 2007; Shimp, 2007; Christensen *et al*, 2009).

The advancement of information and communication technology (ICT) is considered as one of the most significant driving forces of integrated marketing communications (IMC) (Caywood, 1997; Reich, 1998; Kitchen and Schultz, 1999; McGoon, 1999; Schultz and Kitchen, 2000; Maddox, 2001; Clow and Baack, 2002; Duncan, 2002; McKim, 2002; Semenik, 2002; Kim *et al*, 2004; Kitchen *et al*, 2004; De Pelsmacker *et al*, 2005; Holm, 2006; Jiménez-Castillo *et al*, 2006; Del Barrio García, 2008; Gurău, 2008). It is an important source of competitive advantage (Gil *et al*, 2007) that provides companies with new management possibilities (Berenguer Contrí *et al*, 2009). Schultz (1999, p. 337) states that IMC 'appears to be the natural evolution of traditional mass-media advertising, which has been changed, adjusted, and redefined as a result of new technologies'. Several denominations that reflect the synergy between the IMC and ICT have been found in the literature, such as: (a) Interactive Integrated Marketing Communication (Peltier *et al*, 2003; Kliatchko, 2005); (b) Integrated Web-based Marketing Communication (Barker and Angelopulo, 2004; Angelopulo and Barker, 2005); (c) Online Marketing Communications (Jensen and Jepsen, 2008); (d) Integrated Online Marketing Communication (Gurău, 2008); (e) Interactive Marketing Communications (Keller, 2009) and so on. The basic idea of these approaches is the interactive nature of new media and the creation of personalized messages consistent with the communication campaign theme (Peltier *et al*, 2003).

The research of empirical studies published during the last decade shows that IMC implementation has been studied in different countries all over the world. However, further contributions are needed to consolidate the concept (McGrath, 2005). In addition, only a few studies have been carried out concerning this subject in the tourism sector (for example, Kulluvaara and Tornberg, 2003; Skinner, 2005; Elliott and Boshoff, 2008; Wang *et al*, 2009). Furthermore, no studies were found regarding the application of IMC in Croatia, the country whose tourism sector is at its very peak after the recent war. The same also refers to hotels, including high-quality properties, which has made this investigation particularly interesting.

Therefore, this article aims to study in greater detail the IMC and ICT topics in high-class hotels in the Dalmatia region. After the introduction, an overview of the research of IMC implementation in the tourism sector and ICT application in the hotel sector is summarized. Basic characteristics of the Croatian hotel sector are presented, followed by research methodology and results. Finally, conclusions, limitations and future research possibilities are pointed out.

LITERATURE REVIEW

IMC in the tourism sector

The review of 40 empirical studies concerning IMC application published during the last decade reveals the existence of four studies focused on its implementation in tourism, as presented in Table 1.

The study of Kulluvaara and Tornberg (2003), for example, was restricted to a case study of Icehotel – a hotel built of ice and snow and a Swedish tourist attraction. The aim of the study was to describe the hotel's IMC strategy and the use of different communication tools. The results confirmed the hotel's successful IMC strategy, as its message was consistent throughout all the communication tools. Moreover, it showed that public relations and product placement were used as a substitute for advertising when creating publicity.

On the other hand, in his research about IMC implementation during place branding, Skinner (2005) analyzed the messages that the nation's key stakeholders sent out on web pages and in key documents while promoting Wales. The results indicated the violation of the 'one-voice' principle of IMC through the inconsistent promotion of the country, based on different images and weak messages (different logos and inconsistent use of color) within and between organizations. Therefore, as the same author pointed out, the question regarding the possibility of achieving the real integration of marketing communications still remains, as many different messages often have to reach different targets (Wheeler, 1995; Anholt, 2004), and as meeting the needs of one segment might reduce the possibility of meeting the needs of another (Hannagan, 1992).

Table 1: IMC implementation in the tourism sector

<i>Authors</i>	<i>Objectives</i>	<i>Methodology</i>	<i>Sample</i>
Kulluvaara and Tornberg (2003)	Describe the IMC strategy and communication tools used by Icehotel.	Case study	Icehotel – hotel built of ice and snow; Swedish tourist attraction
Skinner (2005)	Discuss whether destination branding should be applied. Focus on the ways in which Wales is promoted as a tourism destination. Identify problems associated with implementing IMC for place brands. Question the strategy of total integration.	Content analysis	Marketing messages representing Wales as a brand
Elliott and Boshoff (2008)	Study the impact of the following factors on IMC implementation: (a) strategic planning orientation; (b) market orientation; (c) entrepreneurial orientation and; (d) pro-active competitor orientation.	Exploratory factor analysis Multiple regression analysis	316 managers of small tourism enterprises in South Africa
Wang <i>et al</i> (2009)	Explore the role of IMC on tourists' selection of heritage destination and the relation between socio-demographic visitors' characteristics and three 'factors' of IMC: (a) direct sale and promotion; (b) public relations; and (c) advertisement.	Exploratory study Descriptive statistics VARIMAX rotation ANOVA	197 visitors of Lukang – a popular heritage township in Taiwan

Moreover, the study of Elliott and Boshoff (2008), carried out in small tourism businesses in South Africa, showed the positive impact of: (a) market orientation, (b) entrepreneurial orientation and (c) pro-active competitor orientation on IMC implementation.

Finally, in their research on the role of IMC on selection of heritage destination, Wang *et al* (2009) suggested the measurement of IMC from the consumer perspective. After interviewing 197 visitors of Lukang during the spring of 2007, the authors identified three factors of IMC: (a) direct sale and promotion, (b) public relations and (c) advertisement, all measured by 21 items. The findings revealed that the influence of each factor changed within different demographic groups. No differences on the IMC factors were found between genders nor between educational levels.

ICT in the hotel sector

Despite the poor initial ICT adoption propensity in the tourism industry, it is currently an essential tool and 'integral factor of strategy creation' (Sánchez Pérez *et al*, 2001, p. 71) that will lead a new world in the hotel sector (Dev and Olsen, 2000). Its impact on relationship marketing is remarkable (Moller and Halinen, 2000; Gummesson, 2002; Sheth, 2002; Durkin and Howcroft, 2003; Ruiz Molina *et al*, 2010b), as it made possible the storing and processing of a great amount of information about the clients, in order to carry out personalized marketing campaigns, which permits the fulfillment of the special needs of every single client (Shapiro and Varian, 2000). Table 2 gathers some studies about ICT application in the hotel sector, showing the type of hotels that tend to use it, and the impact it has on relationship marketing.

From the 1990s the use of new technologies in the hotel sector started to be considered not only in terms of productivity, but also in terms of intangible benefits, such as client service and satisfaction (Cho and Connolly, 1996; Siguaw and Enz, 1999; Law and Jogaratnam, 2005) and as an incentive to establish intra-company, inter-company and customer relationships (Buhalis and Main, 1998; Morrison *et al*, 1999; Bai *et al*, 2003; Jang *et al*, 2006; Daghfous and Barkhi, 2009).

The study of Jang *et al* (2006) showed a strong canonical correlation between the level of website development in relationship marketing and financial performance. After identifying three levels of relationships between the hotels and their clients – (a) basic level (product and company information, online reservations, and contact); (b) accountable level (FAQ, security alert, cancellation or change of reservation, feedback and so on); and (c) partnership level (loyalty programs, personalized account and so on) – the results indicated that as the degree of relationship level progressed the hotels tended to underutilize their websites as a relationship marketing tool.

The tendency of companies to adopt ICT increases with the hotel category (for example, Siguaw *et al*, 2000; Sahadev and Islam, 2005; Daghfous and Barkhi, 2009). The study of Abella-Garcés *et al* (2004) indicated that there was no positive association between the use of e-commerce and the hotel age.

Table 2: ICT application in the hotel sector

<i>Authors</i>	<i>Objectives</i>	<i>Methodology</i>	<i>Sample</i>
Siguaw <i>et al</i> (2000)	Examine the best practices in information technology in all hotel sectors.	ANOVA	4679 USA hotels
Luck and Lancaster (2003)	Explore the level of CRM adoption.	Quantitative analysis	17 UK hotels of 'Hotel Groups'
Frey <i>et al</i> (2003)	Analyze the quantity and the quality of the hotels e-mail replay.	Exploratory study	200 Swiss hotels
Murphy <i>et al</i> (2003)	Analyze hotels e-mails and websites.	Content analysis	200 Swiss hotels
Abella-Garcés <i>et al</i> (2004)	Study the impact of e-commerce on the hotel management. Analyze the relationship between the use of e-commerce and: (a) company's strategy; (b) organizational structure; (c) management information systems; and (d) human resources management.	Exploratory study	60 hotels and lodges in Aragon, Spain
Law and Jogaratnam (2005)	Report and analyze the information technology applications.	In-depth interview approach	21 Hong Kong hotels
Sahadev and Islam (2005)	Analyze the impact of internal and external factors on the propensity of the hotels to adopt ICT.	Regression analysis	95 Thailand hotels
Jang <i>et al</i> (2006)	Investigate the canonical correlation between the level of website development in relationship marketing and financial performance.	Descriptive statistics Canonical correlation analysis Pearson's correlations	39 top hotel companies reported in <i>Hotel and Motel Management</i> (2001)
Daghfous and Barkhi (2009)	Analyze the implementation of: (a) CRM – Customer Relationship Management; (b) TQM – Total Quality Management; and (c) SCM – Supply Chain Management.	Exploratory study	77 four and five-star UAE hotels
Ruiz Molina <i>et al</i> (2010a)	Provide an overview of the main technological developments through the analysis of the level of ICT application and the identification of the opportunities and challenges of the sector.	Conceptual study	Spanish rural hotel sector

Nevertheless, managers' doubts around the efficacy of ICT investments seem to persist (Cho and Connolly, 1996; Kirk and Pine, 1998; Luck and Lancaster, 2003). The studies of Frey *et al* (2003) and Murphy *et al* (2003), carried out in 200 Swiss hotels, found that prospects had less than a one in 10 chance of receiving a quick, polite and personal reply. In addition, Ruiz Molina *et al* (2010a) have pointed out that, owing to the complexity of CRM solutions, the level of understanding of their possibilities, their value and the way they work is low (Magnini *et al*, 2003) and that successful hotels will be those that use ICT effectively, with the aim of instantly satisfying clients' variable desires and needs (Olsen and Connolly, 2000).

Croatian hotel sector

At present, the Republic of Croatia considers tourism as one of the main strategic tools for its development (Bunja, 2003). According to data

released by the Croatian Bureau of Statistics – CROSTAT – in August 2010, the number of tourist arrivals in all commercial accommodation facilities in the country increased by +0.7 per cent and the number of tourist nights increased by +4.5 per cent, as compared to August 2009. Tourists spent 19 002 424 tourist nights (7.3 per cent by domestic and 92.7 per cent by foreign tourists). Whereas the number of domestic tourist nights decreased by –1.9 per cent, the number of foreign tourist nights increased by +5.0 per cent. Regarding the structure of foreign tourist nights, most of them (74.3 per cent) were spent by tourists from: Germany (22.5 per cent), Italy (15.1 per cent), Slovenia (10.3 per cent), the Czech Republic (8.0 per cent), Austria (7.3 per cent), Poland (6.1 per cent) and Slovakia (5.0 per cent) (CROSTAT, October 2010).

Croatia has 581 categorized hotels with 50 885 accommodation units. Twenty-three of them are five-star hotels (15 of them in Dalmatia), 150 are four-star hotels (68 of them in Dalmatia), 313 are three-star hotels and 95 are two-star hotels (Ministry of Tourism – Republic of Croatia, October 2010).

The Croatian hotel sector is still mainly managed by the personnel employed from the former economic and educational systems, which leads to an urgent need to engage new employees who have the necessary expertise and are capable of managing the business activities according to international management standards and present market conditions (Bunja, 2003). In their study about the service quality in the hotel sector of the city of Split – the biggest city in Dalmatia and the second biggest city in Croatia – Pepur and Pivčević (2009) observed that all five SERVQUAL dimensions need to be improved in order to satisfy the guests' needs, paying particular attention to tangible elements of the hotel service and personnel's kindness.

RESEARCH QUESTIONS AND METHODOLOGY

This article aims to explore in greater detail the IMC and ICT concepts in the tourism sector, specifically in Dalmatian first-class (four-star) and luxury (five-star) hotels.

The literature review has indicated the considerable impact of ICT on the hotel sector. The hotels that are more inclined to adopt ICT are high-class hotels (for example, Siguaw *et al*, 2000; Sahadev and Islam, 2005; Daghfous and Barkhi, 2009). On the basis of this finding, the first research question is proposed:

Q1: Analyze the application of ICT in high-class Dalmatian hotels and observe whether there are differences between the first-class (four-star) and the luxury (five-star) hotels.

ICT is considered in the literature as one of the most important background factors of IMC. Furthermore, IMC has been widely accepted and implemented as a new paradigm all over the world (Peltier *et al*, 2003; Edmiston-Strasser, 2009; Kitchen and Schultz, 2009). However, no studies have been found with regard to the implementation of IMC in

Croatia, nor in first-class and luxury hotels. Hence, the second research question is proposed:

- Q2:** Study the implementation of IMC in high-class Dalmatian hotels and observe whether there are differences between the first-class (four-star) and the luxury (five-star) hotels.

The empirical study was conducted during April and May 2010 in Dalmatia, which is the largest of the three tourist regions on the coast of Croatia. The census consisted of 17 Dalmatian hotels: 8 first-class and 9 luxury hotels. Owing to characteristics of the Croatian hotel sector, a census for the study was selected on the basis of the hotels' connection to the Association of Hoteliers of Split and Dalmatia and the firm Marcon, both innovators and globally relevant Croatian sources of know-how, focused on the promotion and development of tourism in the area. Similarly, hotels in the Dubrovnik city area were approached.

The data were collected through a structured questionnaire. The initial version, pre-tested on two hotel directors, was reduced in order to shorten its duration. The revised questionnaire consisted of closed questions measured by 5-point Likert-type scales and was written in Croatian and English. It was mainly administered through personal interviews (in two hotels it was administered through telephone interviews, whereas in another two hotels it was self-administered). The technical details of the research are summarized in Table 3.

In order to measure ICT application, the adapted scale proposed by Ruiz-Molina *et al* (2010a) was used: (a) 17 items assessed hotels' hardware equipment; (b) 5 measured connection; (c) 7 applied to software equipment; and (d) 12 items evaluated ICT equipment for guest service during his/her stay in the hotel. IMC implementation was measured by Lee and Park's scale (2007). As the same authors suggested, this scale needs to be validated in a European context. Furthermore, this scale represents improvements over the previous IMC scales, as it was designed specifically for the development of IMC scale and not for another purpose, its procedures are methodologically more rigorous, and it is more comprehensive than other scales (Lee and Park, 2007). On the basis of previous IMC studies and definitions, this scale identified four IMC dimensions: (a) unified communications for consistent message and image; (b) differentiated communications to multiple customer groups; (c) database-centered communications for tangible results; and (d) relationship fostering communications with existing customers. The scale consisted of 18 items: 5 items were used to measure the first dimension, 5 the second, 4 the third and 4 the last dimension.

Table 3: Technical details of the research

Geographic area	Dalmatia – Croatian region
Method	Structured questionnaire
Census	8 first-class and 9 luxury hotels
Research period	April and May 2010
5-point Likert-type scales	ICT – adapted from Ruiz-Molina <i>et al</i> (2010a); IMC – Lee and Park (2007)

RESULTS OF DESCRIPTIVE STATISTIC ANALYSIS

Owing to the small census of 17 hotels, descriptive statistic analysis was carried out for data analysis, using SPSS software – version 15. Means and standard deviation for all ICT items are reported in Table 4.

The results indicated a relatively high degree of ICT adoption. Particularly, means greater than 3.99 were related to: (a) different hardware items (PC computer=5.00; mobile telephone=4.88; server=4.76; laptop=4.71; home automation systems=4.65; LCD screen=4.59; electronic cash register=4.59; point of sale systems=4.53; telephone exchange=4.47; digital telephone=4.00); (b) some connection items (Internet connection=4.71; Wi-Fi=4.65; local area connection with cable=4.06); (c) almost all software items (office automation programs=5.00; security systems=4.82; informatics invoicing systems=4.65; information analysis=4.29; specific department applications=4.24); and (d) a few items that measured the equipment for guest service during his/her stay in the hotel (LCD screen=4.59; video surveillance=4.53; digital telephone=4.00). However, the results revealed poor adoption of some connection items (WiMAX=1.29; Bluetooth=1.82) and of some equipment for guest service items (stereo in rooms=1.24; touchscreen=1.41; interactive TV=1.82).

Comparing the two hotel categories, five-star hotels have showed a higher degree of ICT implementation, especially of the following facilities: laptop, personal digital assistant, digital telephone, touchscreen, point of sale systems, specific department applications, some equipment for guest service during his/her stay in the hotel (satellite digital TV, DTT, Interactive TV, DVD and stereo in rooms, digital telephone, ambient intelligence) and so on. However, four-star hotels adopted more of the following ICT applications: mobile telephone, fax, telephone exchange, LCD screen, DTT, DVD, home automation systems, software security systems, information analysis, simulators, video surveillance, cable TV and analogical telephone in rooms. Furthermore, first-class hotels showed a greater propensity to adopt Wi-Fi and Bluetooth connection than luxury hotels, whereas luxury hotels were more inclined to use local area connection with cable and WiMAX.

On the other hand, as illustrated in Table 5, means for the IMC items were greater than 3.99 for all items except the one that measured the differentiation of the buyer and the user within hotels' marcom strategy ($M=3.59$). Hotels seemed to give special attention to: (a) generating a continuous flow of profits from individual customers in the long run by solidifying relationships with them ($M=4.82$); (b) creation of more than two target customer groups ($M=4.76$); (c) maintaining existing customers, as well as recruiting new ones ($M=4.76$); (d) generating continuous business with existing customers and enhancement of their satisfaction level ($M=4.76$); (e) consistency in all visual components of communication ($M=4.71$); and (f) inducement of customer's actions ($M=4.71$).

Comparing first-class and luxury hotels, surprisingly, the results showed that a degree of IMC implementation decreased with the hotel category, completely regarding the first two dimensions – unified communications for consistent message and image, and differentiated

Table 4: Descriptive statistic analysis: Hotels' ICT implementation

ICT DIMENSIONS	ICT ITEMS	Min.	Max.	Mean	Standard deviation	Mean 4*	Standard deviation 4*	Mean 5*	Standard deviation 5*
Hardware	1. PC computer	5	5	5.00	0.000	5.00	0.000	5.00	0.000
	2. Laptop	3	5	4.71	0.686	4.50	0.926	4.89	0.333
	3. Server	3	5	4.76	0.562	4.75	0.707	4.78	0.441
	4. Security copy systems	1	5	3.59	1.176	3.50	1.512	3.67	0.866
	5. Personal digital assistant	1	5	2.53	1.663	2.13	1.808	2.89	1.537
	6. Digital telephone	1	5	4.00	1.620	3.88	1.808	4.11	1.537
	7. Mobile telephone	3	5	4.88	0.485	5.00	0.000	4.78	0.667
	8. Fax	2	5	3.94	1.197	4.63	0.744	3.33	1.225
	9. Telephone exchange	3	5	4.47	0.800	4.75	0.463	4.22	0.972
	10. Digital camera	1	5	3.29	1.160	3.25	1.165	3.33	1.225
Connection	11. LCD screen	1	5	4.59	1.064	5.00	0.000	4.22	1.394
	12. Touchscreen	1	5	2.18	1.551	1.63	1.188	2.67	1.732
	13. Digital terrestrial TV – DTT	1	5	2.24	1.678	2.50	2.070	2.00	1.323
	14. DVD	1	5	2.65	1.320	2.75	1.282	2.56	1.424
	15. Electronic cash register	1	5	4.59	1.004	4.50	1.414	4.67	0.500
	16. Point of sale systems	1	5	4.53	1.007	4.38	1.408	4.67	0.500
	17. Home automation systems	3	5	4.65	0.606	4.88	0.354	4.44	0.726
	18. Internet connection	2	5	4.71	0.849	4.63	1.061	4.78	0.667
	19. Local area connection with cable	1	5	4.06	1.519	3.25	1.909	4.78	0.441
	20. Wi-Fi	3	5	4.65	0.786	5.00	0.000	4.33	1.000
Software	21. Bluetooth	1	4	1.82	0.951	1.88	1.126	1.78	0.833
	22. Worldwide interoperability WiMAX	1	3	1.29	0.686	1.25	0.707	1.33	0.707
	23. Office automation programs	5	5	5.00	0.000	5.00	0.000	5.00	0.000
	24. Design programs	1	5	2.88	1.453	2.88	1.246	2.89	1.691
	25. Security systems	3	5	4.82	0.529	5.00	0.000	4.67	0.707
	26. Informatics invoicing systems	2	5	4.65	0.786	4.63	1.061	4.67	0.500
	27. Specific department applications	1	5	4.24	1.348	4.13	1.458	4.33	1.323
	28. Information analysis	1	5	4.29	1.047	4.75	0.463	3.89	1.269
	29. Simulators	1	5	2.53	1.625	3.12	1.553	2.00	1.581
	30. Video surveillance	1	5	4.53	1.125	4.75	0.707	4.33	1.414
Equipment for guest service during his/her stay in the hotel	31. LCD screen	1	5	4.59	1.064	4.75	0.707	4.44	1.333
	32. Touchscreen	1	5	1.41	1.176	1.38	1.061	1.44	1.333
	33. Satellite digital TV	1	5	3.65	1.801	3.00	2.138	4.22	1.302
	34. Cable TV	1	5	2.71	1.929	3.50	2.070	2.00	1.581
	35. Digital terrestrial TV – DTT	1	5	2.24	1.751	2.00	1.852	2.44	1.740
	36. Interactive TV	1	5	1.82	1.380	1.50	1.414	2.11	1.364
	37. DVD in rooms	1	5	2.00	1.118	1.88	1.126	2.11	1.167
	38. Stereo in rooms	1	3	1.24	0.562	1.13	0.354	1.33	0.707
	39. Analogical telephone	1	5	2.35	1.835	2.50	2.070	2.22	1.716
	40. Digital telephone	1	5	4.00	1.732	3.50	2.070	4.44	1.333
	41. Ambient intelligence	1	5	2.59	1.873	1.88	1.642	3.22	1.922

4* stands for 4 star hotels.

5* stands for 5 star hotels.

Table 5: Descriptive statistic analysis: hotels' IMC implementation

IMC DIMENSIONS	IMC ITEMS	Min	Max	Mean	Standard deviation	Mean 4*	Standard dev. 4*	Mean 5*	Standard dev. 5*
Unified communications for consistent message and image	1. Communications tools and channels consistency	3	5	4.53	0.717	4.75	0.707	4.33	0.707
	2. Visual components consistency	4	5	4.71	0.470	4.88	0.354	4.56	0.527
	3. Linguistic components consistency	2	5	4.12	0.928	4.25	0.886	4.00	1.000
	4. Brand image consistency	2	5	4.53	0.874	4.75	0.707	4.33	1.000
Differentiated communications to multiple customer groups	5. Long-term consistency	3	5	4.65	0.606	4.75	0.707	4.56	0.527
	6. Differentiation of the buyer and the user	1	5	3.59	1.873	4.00	1.852	3.22	1.922
	7. Creation of more than two target customer groups	4	5	4.76	0.437	4.88	0.354	4.67	0.500
	8. Single brand image versus multiple brand images	1	5	4.00	1.118	4.25	0.886	3.78	1.302
Database-centered communications for tangible results	9. Close scrutiny of the customer's buying process	2	5	4.06	1.029	4.25	0.886	3.89	1.167
	10. Adjustment marcom tools-customer's buying process	2	5	4.24	0.970	4.63	0.744	3.89	1.054
	11. Inducement of customer's actions	4	5	4.71	.470	4.75	.463	4.67	0.500
	12. Following of consumer responses to marcom activities	4	5	4.59	0.507	4.50	0.535	4.67	0.500
Relationship fostering communications with existing customers	13. Complying of the consumer information	3	5	4.65	.606	4.63	.744	4.67	.500
	14. Integration of customer information into a unified database	3	5	4.29	0.849	4.38	0.916	4.22	0.833
	15. Marcom activities that strengthen the relationship with existing customers	1	5	4.24	1.033	4.13	1.356	4.33	0.707
	16. Maintaining existing customers and recruiting new ones	3	5	4.76	0.562	4.75	0.707	4.78	0.441
	17. Continuous business with existing customers and enhancement of their satisfaction level	4	5	4.76	0.437	4.75	0.463	4.78	0.441
	18. Continuous flow of profits in the long run and solidification of relationships with customers	4	5	4.82	0.393	4.88	0.354	4.78	0.441

4* stands for 4 star hotels.

5* stands for 5 star hotels.

communications to multiple customer groups – and partially regarding the third one – database-centered communications for tangible results. Only three items of the fourth dimension – relationship fostering communications with existing customers – were more adopted in luxury hotels, particularly: (a) marcom activities that strengthen the relationship with existing customers; (b) maintaining existing customers, as well as recruiting new ones; (c) generating continuous business from existing customers and enhancement of their satisfaction level.

CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH

Changes produced in the market have led to changes in the practice of marketing and communication management (Kitchen *et al.*, 2004). Consequently, one single marketing communication tool could not achieve marketing communication purposes by itself (Garber and Dotson, 2002). This is why at the beginning of the 1990s the IMC approach appeared. ICT has been one of the most significant driving forces of this change, as it centers on consumer orientation and creation of databases, the basic characteristics of IMC (Schultz, 2003). In other words, if the ideas of integration, coordination and customer orientation are not new, the fact that new technologies have made it possible to put these classical ideas into actual practice is new (Kliatchko, 2005, 2008).

The purpose of this study was to contribute to IMC and ICT research in the Dalmatian hotel industry. The results of descriptive statistic analysis demonstrated a high degree of implementation of both constructs. Furthermore, ICT application increased with the hotel category, whereas surprisingly IMC implementation decreased.

However, the small hotel census is the main limitation of the study. It should be noted that Croatia in general and Dalmatia in particular have a low number of first-class and luxury hotels. Furthermore, a great part of the Croatian hotel management personnel (high-class hotels inclusive) is still anchored to the former economic and educational system, which might have influenced the quality of the replies. Therefore, future studies need to concentrate on areas that have a bigger hotel census characterized, in addition to more innovative management. Finally as two of the most recognized IMC researchers – Kitchen and Schultz – have recently pointed out, there is a need for a greater alignment between the brand and marketing communications when generating customer loyalty (Kitchen and Schultz, 2009). Hence, future research might focus on the customer and reconsider the role of IMC in the hotel sector in relation to brand equity and its dimensions.

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