

ATTITUDES TOWARDS SUSTAINABILITY IN CHAIN HOTELS – RESULTS OF A EUROPEAN SURVEY

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Abstract

Hotels typically represent only about 4-5% of a nation's buildings stock, yet they provide accommodation to 40-50% of all domestic and international visitors. On the European scale this translates to almost 200 million visitors per year. Many of the services provided to hotel guests are highly resource intensive. This particularly reflects on the consumption of energy, water, food and non-durable goods. Indeed, hotels have been found to have the highest negative impact on the environment of all commercial/service buildings, with the exception of hospitals.

The successful implementation of more sustainable practices in the hotel industry is highly dependent on the active support and cooperation of all stakeholders involved. The willingness and ability of hotel management to advocate and implement state-of-the-art environmentally responsible behaviour and practices is thus crucial.

An e-mail based survey was performed to assess the environmental awareness in the European hotel industry. This paper discusses the outcomes of the questionnaire distributed within a chosen subset of hotel chains, some of which already implement corporate environmental programs. The results obtained via this independent investigation are compared to the information presented in corporate environmental reports, and possibilities of future improvements are discussed.

Perhaps the greatest barrier preventing hoteliers from becoming more "green" is a widespread belief that environmental measures are prohibitively expensive. While the necessary modifications in technology, management and behaviour may require investments, it has been shown that such investments are profitable in the longer perspective.

The levels of eco-awareness and relevant education obviously need to be increased both in the industry and the public. Hotels have the potential of becoming significant venues of education as they are exposed to the travelling public, a rapidly increasing portion of the world's population. The industry needs good role-models and physical examples of economically successful eco-friendly businesses will go a long way in convincing both customers and the industry that corporate responsibility makes good business sense.

Keywords: hotel, chains, environmental attitudes, Europe, survey.

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1. Introduction

There are obvious and encouraging signs that the travel and tourism industry, one of the largest industries in the world, has begun to be aware of its substantial negative impacts on the environment, and is stepping up its efforts to embark on a more sustainable path. During 2002, the International Year of Eco-Tourism (an important and rapidly growing segment of the industry), the UN together with the World Tourism Organization and numerous other international (industrial and public) stakeholders arranged a series of conferences and events worldwide to highlight and promote the need for greater environmental responsibility in the tourism industry. A series of follow-up activities and efforts are in progress.

Over the years, a number of documents aiming at incorporating environmental and socio-cultural responsibility into tourism business practice have been published. Among the most significant are the 1995 “Lanzarote Charter for Sustainable Tourism” (issued jointly by the World Tourism Organisation, the United Nations Environmental Programme, UNESCO and the Commission of European Communities) [1], and “Agenda 21 for the Travel and Tourism Industry: Towards Eco-friendly Sustainable Development” (launched in 1996 as a result of co-operation between World Travel and Tourism Council, World Tourism Organisation, and the Earth Council) [2].

The mere existence of such documents, however, cannot bring about the significant changes that will need to occur in the travel industry on the way towards more eco-friendly practice. Competent professionals will need to enact the necessary changes. While there is very little data on the exact level of environmental awareness in the industry, it is already obvious that a significant amount of education and training will be required to empower all stakeholders with the knowledge required.

European hotel chains were targeted in this survey for a number of reasons. First, the hotel industry represents one of the most important sectors of the tourism industry. Second, the European hotel market, estimated at the level of 205 200 facilities and almost eight million beds, represents half the global market [3,4]. Third, as a consequence of its very specific operational schemes and purposes, the hotel sector constitutes one of the most resource-intensive branches of the tourism industry. Substantial quantities of energy, water and non-durable products are consumed in providing comfort and services to guests, many of who are accustomed to, and willing to pay for exclusive amenities, treatment and entertainment. The resource use efficiency of the many different end-users in hotel facilities is frequently low, and the resulting environmental impacts are, therefore, typically greater than those caused by other types of buildings of similar size [5]. At the same time, eco-friendly initiatives are becoming more and more popular among hoteliers worldwide. Approximately 40 percent of more than 3000 respondents to a 1998 Horwath hotel industry survey confirmed using different quantitative measures of environmental performance, including those relevant to energy use and water consumption, waste disposal, as well as volume and treatment of wastewater [6]. Fourth, chain hotels, as a result of their world-wide presence, have a significant potential of influencing behaviour and practice in the tourism sector,

as well as in supporting sectors. It is thus of crucial importance to evaluate the current situation in this sector.

2. Methodology

Four hotel chains (Accor, Best Western, Radisson SAS, and Scandic Hotels AB) were chosen to participate in the e-mail based survey presented here. While all four chains operate world-wide, this survey was carried out for European facilities only. Due to the proprietary character of the data collected, the chains are henceforth referred to as Chain 1, Chain 2, Chain 3, and Chain 4. This numbering does not reflect the sequence in which the chain names are listed above.

A survey questionnaire was developed (based on a comprehensive literature review) comprising twenty-two multiple-choice questions, occasionally supplemented by open-ended follow-up comments included for clarification. The questionnaire was sent to hotel representatives via e-mail in two stages. Chain 1, 2, and part of Chain 3 were interviewed in the months of October to December 2002. The remaining facilities in Chain 3 and Chain 4 were questioned between March and May 2003. A follow-up reminder was sent to each non-respondent periodically (approximately every two-three weeks). The e-mail addresses of the hotels were mainly obtained from the Internet and from commercially available hotel directories [7-12].

A total of 2198 hotels were targeted, representing 96.2, 97.9, 72.9, and 89% of existing facilities belonging to Chains 1 to 4, respectively. 300 correctly and completely filled-in forms were collected, amounting to response rates of 37.8%, 43.9%, 12.1%, and 10.3%, respectively. The response rates were determined after excluding all facilities, for which the e-mail addresses used proved to be invalid. The response rates based on the number of existing facilities would amount to 29.52%, 42.2%, 8.2%, and 8.9%, respectively for Chains 1 to 4. Surveys, especially those conducted via e-mail, generally suffer from very low response rates, typically ranging from 10.5% to 30.7% [13]. This is believed to be partly due to the lack in e-mailed communications of direct personal contact, resulting in a perceived lesser obligation to respond. While the response rates obtained from Chain 3 and 4 are arguably unrepresentative, the responses collected from Chains 1 and 2 may be treated as reflecting the opinions for the entire chain. Despite these limitations, the authors will explore the trends revealed by the survey.

3. Survey participant profiles

While all four hotel chains included in the survey have environmental policies and on-going environmental programs at corporate level, only three of them have such information clearly displayed on their web-pages, or regularly publish environmental reports. In the case of Chain 3, the information about corporate environmental activities was obtained from the questionnaires, where it was mentioned by only a few respondents. As indicated throughout this report, the official corporate attitude seems to have a significant influence

on the environmental awareness among the hotel respondents, as well as the existence of environmental initiatives among chain member enterprises.

While the questionnaires were typically sent to listed hotel addresses (rather than to specific individuals), at least one third of the forms returned were completed by hotel management. This indicates that the survey was treated seriously, and that the views obtained are likely to be representative for this segment of the European hotel industry.

Standard-wise, the chain facilities considered were largely three and four star facilities with the exception of Chain 1 where higher standard hotels (four and five star) prevailed. As to hotel size, the survey included facilities ranging from 22 to over 741 rooms, with the average hotel size being 222.3, 201.2, 83.6, and 144.4 rooms, for Chain 1, 2, 3, and 4 respectively. The majority of hoteliers stated that their establishment belonged to some type of hotel association, including the relevant hotel chain. It is generally believed that hotel and tourism associations (TAs), including hotel corporations, have a very important role in raising environmental awareness and promoting more sustainable practices among the representatives of the hospitality industry. The majority of such organizations have developed individual environmental policies and action plans. They are further able to advise and help hoteliers in making the right decisions. TAs often offer their members training and consulting services, and publish different types of guidelines and best practice case studies [14-18].

According to the World Tourism Organisation [19], leisure and recreation are the dominating purposes for travel. However, substantial numbers of hotels nowadays rely on business and conference guests as basic and major customers, unless the destination is predestined for leisure purposes. More than two-thirds of the respondents from each chain indicated that business guests represent more than half the guests at their facility. Only few respondents claimed that tourists are their major clientele. The customer profile defines the occupancy and operational patterns at a facility, and typically affects customer attitudes towards environmental protection. This clearly also influences the particular traits of a facility, which will be highlighted for promotion and marketing purposes. Facility location and the diversity/quality of services offered are the most commonly marketed hotel features (82.2% to 92.7% positive answers for location, and 82.2% to 96.8% for quality of services). Hoteliers typically believe that these are the two most important factors affecting customer choice. Interestingly, the cost of the services offered typically ranks third. Advertising environmental concern is generally not believed to have a significant influence on customer choice, as only single respondents ranked it as number one on their priority list. Nevertheless, between 16.3% and 70.9% of hoteliers participating in the survey claim to include information on environmental responsibility at their facility in their marketing efforts. The survey further showed that the prospect of enhancing the attractiveness of a hotel by promoting it as "green" is typically not considered as a strong enough incentive to motivate eco-friendly action. While this may be interpreted to indicate the lack of sufficient numbers of "green customers", recent studies have shown that environmental concerns are increasingly influencing customer behaviour in Europe, and that this may soon substantially affect the choice of accommodation [3]. In the European context it

may thus be expected that the numbers of "green hotel customers" will increase in the coming years.

4. Environment-related information

The tourism industry has a dual relationship with the environment. The natural attractivity/exclusivity of a destination is typically its main tourism-related asset, at the same time as it also is the feature most directly threatened by potential over-exploitation. Although environmental responsibility and sustainability are concepts that have only recently come to bear explicitly on the development of tourism, the enforcement of these values has always been essential for the continued attractivity and marketability of any location [3]. Ironically, for many years the industry claimed to be absolutely free of any negative impacts. Indeed, as compared to other industries, the tourism industry does not always offer easily identifiable point sources of pollution. However, the cumulative and long-term effects of large numbers of "small polluters" can be as environmentally harmful as those caused by smaller numbers of more easily identified "heavy polluters".

Nowadays, attitudes are changing and tourism authorities readily admit that the industry is not without guilt, both locally and globally. It is therefore a very positive sign that the vast majority of respondents, 100%, 98.4%, 76.2%, and 87.3%, respectively, believe that environmental protection is essential for the performance and further development of the tourism industry. Recognizing the problem is a necessary first step towards remediation and more responsible behaviour.

The majority of hotel representatives answered that they are aware that hotel facilities do have an influence on the natural environment. As a matter of fact, the lodging sector constitutes the most environmentally harmful branch of the tourism industry, due to its high resource intensity. It is estimated that 75% of the environmental impacts of the hotel industry can be attributed to the excessive consumption of local/imported non-durable goods, energy and water, followed by emissions released to air, water and soil [3].

European hotels consume, on average, 72-519 kWh of energy per square meter of area, depending on the location and services offered, amounting to a total of 39 TWh/year [20]. Depending on the source of energy (hydro-, wind-, nuclear-, oil-, or coal-based) hotels can be responsible for the annual generation of up to 160 kg of carbon dioxide per square meter of area, which is equivalent to 10 tons of CO₂ per bedroom [21]. As regards the consumption of water, it is estimated that - depending on the hotel standard - guests typically use between 90 and 150 litres of water per night [22]. However, a recent report published by one chain provides an average figure of 440 litres/guest-night [23], while another chain reports an average figure of 224 litres /guest-night [24].

Waste generation is probably the most visible impact hotels have on the environment. A typical hotel guest produces 1 kg of waste per day, which leads to tons of waste disposed by hotels monthly. Large proportions (50-60 %) of this waste could be recycled or reused [25-27]. The average quantity of

unsorted waste presented in the environmental report of one chain equaled 3.1 kg/guest-night in 2002, with Scandinavian and German facilities ranking appreciably lower (1.5 kg/guest-night) than the corporate average [23]. On the other hand, another chain reports an average of 0.515 kg of unsorted waste per guest-night [24]. The other two chains under investigation do not publish any such information on their web-pages.

In light of the above, most respondents believed that environmental impacts caused by hotels are medium to significant (87.1, 96.7, 77.3 and 76.3 % for Chains 1 to 4, respectively), which agrees relatively well with the outcomes of previous scientific investigations [3]. However, among the comments received from the respondents were also those questioning the negative impact of hotels on the environment, and doubting the need for hotels to be eco-friendly at all. Fortunately the number of such statements was very small.

Parallel to its significant impact on the environment, the hotel industry, due to its size and global presence, at the same time has a substantial potential for promoting and supporting corporate responsibility. This potential should be wisely used, since the future of the travel and tourism industry highly depends on the continued availability of attractive and marketable environments. It is therefore encouraging that the predominant majority of hoteliers expressed serious concern for the environment. The extent of positive answers ranged from 74.2% for Chain 3 to 100% for Chain 1.

The survey further showed, that the level of environmental awareness among the hoteliers was commensurate to the efforts made by the chain management towards developing and enforcing environmental policies and programs. The percentage of positive answers relevant to the possession of information on how to diminish negative impacts arising from the hotel operation was as follows: 51.5% for Chain 3, 70%, 74.2%, and 96.8 % for Chain 4, 2 and 1, respectively. On the other hand, many respondents raised the issue of the cost of becoming "green" and environmentally responsible. Many hoteliers fear that the road to environmental sustainability may be prohibitively expensive, especially in view of the current market fluctuations and international political turmoil. One respondent highlighted the need for a more adequate promotion of environmentally certified establishments. Information about eco-certificates owned by the hotel should be displayed in hotel catalogues/directories, city guides as well as booking and travel agencies. Such information could be especially valuable in view of only 1% of European accommodation facilities currently being eco-labelled [3]. There exists a great need of relevant environmental education and increased awareness among the general public.

Despite these limitations, the majority of hoteliers declared to be involved in some kind of environment-oriented activities (68% and 85.4% for Chains 3 and 4, and 100% for Chains 1 and 2). As up to 75% of the environmental impacts caused by the lodging industry are estimated to arise from the excessive consumption of non-durable goods (and consequent waste generation), as well as from the use of energy and water [3], these areas are those most frequently targeted by environmental measures.

The type of environmental activities reported by the hoteliers varied significantly, regionally, as well as with facility size and standard. It is likely that those differences were partly the result of differences in local legislation

and regulations, as well as local conditions. The types of measures were further significantly influenced by corporate policy, the level of environmental awareness manifested by management, and the financial state of the establishment.

In total, more than 70% of the respondents declared to be involved in energy and water saving measures, as well as in some form of waste management (exception, Chain 3 – 62.5% in case of responsible waste management). For Chains 1 and 2 the corresponding figure was in excess of 93 %.

5. Incentives

The hoteliers participating in the survey were asked to rank according to their importance the incentives capable of encouraging them to undertake environmentally-oriented initiatives, with 1- describing the most important incentive, 7 – the least important and 0 – no ranking provided. Unfortunately, in some of the questionnaires collected, this ranking was not done. Often times different features were given the same ranking, or a “yes-no” format was used instead. Where “yes-no” answers were given, all indicated features were assumed to have the highest priority and ranked 1. In the analysis only the highest priority features were included, i.e., the response frequency was calculated based on the number of answers marked 1.

For the representatives of Chains 3 and 4 the possibility of reducing operational costs was by far the strongest incentive. By contrast, the hoteliers in Chains 1 and 2 indicated that corporate responsibility was reason enough to take action, see also Figure 1., reflecting a growing international trend in business. Parallel to action taken by the hotel industry itself, adequate environmental measures will continue to be required by ever more stringent environmental laws and regulations.

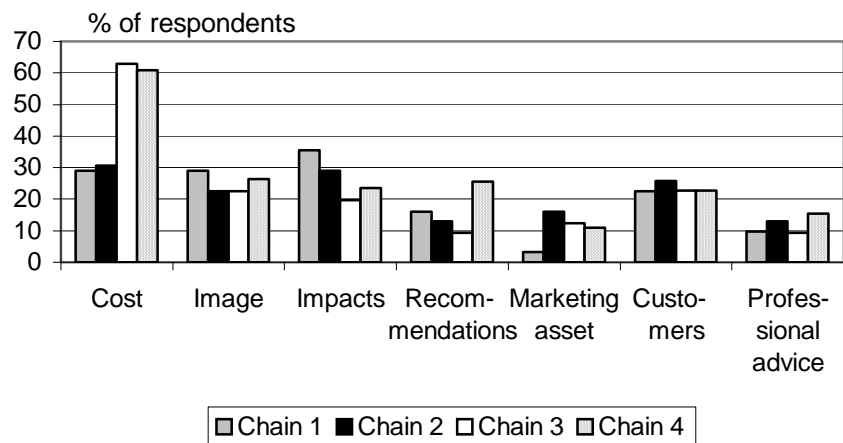


Figure 1 Top-rated (rank "1") incentives towards greater corporate responsibility

6. Conclusions

The results obtained from the questionnaire study performed for four European hotel chains show that the respondents generally perceived the environment as an important factor for the development and success of tourism and the hotel industry. Hoteliers are typically aware that their facilities influence the natural surroundings, although the magnitude of the impact is often underestimated. Hoteliers do have a certain (though varying) level of environmental knowledge and they are generally aware of measures that can be taken towards greater environmental responsibility. However, respondents frequently expressed their reluctance towards getting involved in environmental initiatives, as they feared that such action might negatively affect customer comfort and satisfaction. With growing awareness of the fact that customers themselves increasingly demand "green alternatives", hoteliers are becoming more motivated and willing to take steps towards greater environmental responsibility.

Perhaps the greatest barrier preventing hoteliers from becoming more "green" is a widespread (and equally misplaced) belief that environmental measures are prohibitively expensive. While the necessary modifications in technology, management and behaviour may require substantial investments, there exist convincing show-case examples proving that investments in greater sustainability are profitable in the longer perspective [16, 28-29]. Such role-model examples should be publicized much more widely within the industry. If operational costs can be significantly decreased, and if there exists outspoken customer demand, hoteliers will respond with greater environmental responsibility.

There is undoubtedly a great need for education and increase in environmental awareness among the general public. Hotels have the potential of becoming significant venues of such education as they are exposed to the travelling public, a rapidly increasing portion of the world's population. Physical examples of economically successful eco-friendly businesses will go a long way in convincing both customers and the industry that corporate responsibility makes good business sense. As the hotel industry is inter-related with numerous other industries (including a wide range of suppliers), this can have significant spin-off effects. Two of the chains investigated already require from their suppliers to provide them with eco-friendly products, and in some cases they have convinced their suppliers to eco-certify their products and services. The purchase power and market influence of hotels, and even more so of hotel chains, is obviously substantial [30, 31].

Change seldom comes about easy, and it takes a good dose of proactivity, determination and business boldness to explore promising but yet untested alternatives. Today, we have the privilege of being able to look at and learn from some very profitable eco-friendly businesses, who have sweated their way through a healthy dose of trend-setting pioneering work. Let us follow the example of these valuable role models who have shown that sustainability is profitable.

References

- [1] **World Conference on Sustainable Tourism** (1995) "Charter for sustainable tourism". Lanzarote Island, Spain. Available at www.insula.org, as accessed 14.06.2001.
- [2] **WTTC, WTO, Earth Council** (1996) "Agenda 21 for the Travel and Tourism Industry – Towards Environmentally Sustainable Development". Available at www.wttc.org, as accessed 14.06.2001
- [3] **APAT** (2002) "Tourist Accommodation EU Eco-Label Award Scheme". Final Report, 16 October 2002. Italian National Agency For the Protection of the Environment and for Technical Services.
- [4] **IH&RA** (2000) "Leading Hospitality into the Age of Excellence: Expansion, Competition and Vision in the Multinational Hotel Industry 1995-2005". International Hotel & Restaurant Association, Paris.
- [5] **Rada, J.** (1996) "Designing and Building Eco-efficient Hotels". *Green Hotelier*, 4, 10-11.
- [6] **Vögl A.** (1998) "1998 Horwath Worldwide Hotel Industry Study". Conference Report, IH&RA 36th Annual Congress, 22-26.10.1998, Manila, Philippines. Available at www.ih-ra.com, as accessed 24.10.2001.
- [7] **Accor Hotels.** www.accor.com, as accessed 7, 14, 27, 28.02.2003, 1.03.2003.
- [8] **Best Western Hotels.** www.bestwestern.com, as accessed 2.10.2002, 6, 28.02.2003.
- [9] **Orbis Hotels.** www.orbis.pl, as accessed 1.09.2002.
- [10] **Radisson SAS Hotels and Resorts.** www.RadissonSAS.com, as accessed 25.09.2002.
- [11] **Scandic and associated hotels 2002** - Hotel Directory, Scandic Hotels AB.
- [12] **Scandic Hotels AB.** www.scandic-hotels.com, as accessed 1.10.2002.
- [13] **Medina-Munoz, D. and Garcia-Falcon, J.M.** (2000) "Successful relationships between hotels and agencies". *Annals of Tourism Research*, 27 (3), pp.737-762.
- [14] **IHEI** (1993) "Environmental Management for hotels". International Hotel Environmental Initiative. Butterworth-Heinemann, Oxford.
- [15] **IH&RA, IHEI, UNEP** (1995) "Environmental action pack for hotels: practical steps to benefit your business and the environment". UNEP industry and environment technical report 31. Paris: IH&RA: London: IHEI: Nairobi: UNEP.
- [16] **UNEP, IH&RA** (1997) "Environmental good practice in hotels, Case studies from the International Hotel and Restaurant Association Environmental Award, Green Hotelier". United Nations Environmental Program and International Hotel & Restaurant Association, Paris.
- [17] **Accor Group** (1998) "The environment guide for hotel managers". Accor Group, France.
- [18] **Accor Group** (2001) "In Hotels, as in the Home, A few Simple Actions to Conserve the Environment. Practical handbook". Accor Group, France. Available at <http://www.accor.com/>, as accessed 6.02.2003.
- [19] **WTO** (2000) "Tourism Highlights 2000". Second Edition. World Tourism Organisation, France.
- [20] **CHOSE** (2001) "Energy savings by combined heat cooling and power plants (CHCP) in the hotel sector". Report of the Commission of the European Communities, Directorate General for Energy, Contract N° XVII/4.1031/Z/98-036, May 31st, 2001.
- [21] **EEO** (1993) "Energy efficiency in hotels – a guide for owners and managers", Guide 36. Energy Efficiency - Best Practice Programme, Department of the Environment, BRESCU, UK.
- [22] **THERMIE** (1994) "Rational Use of energy in the Hotel sector". EU Thermie Programme Action B-103. IMPIVA, Valencia.

- [23] **Radisson SAS** (2002) "Responsible Business Report 2002". Radisson SAS Hotels & Resorts.
- [24] **Scandic Hotels AB** (1999) "Annual report 1999".
- [25] **Smith, W.H.** (1993) "EcoPurchasing Guide for Hotels and Motels". University of Florida.
- [26] **Smith-Jessup, L.** (1998) "Hoteliers and planners become ecologically sensitive". *Going Green* 1998, Meetings Web. Available at www.meetingsweb.com, as accessed 26.01.2001.
- [27] **IHEI** (2002) "Hotels Care: Community Action and Responsibility for the Environment". International Hotel Environmental Initiative, UK.
- [28] **Enz, C.A., Siguaw, J.A.** (1999) "Best hotel environmental practices". *The Cornell Hotel and Restaurant Administration Quarterly*, 40 (5), 72-77.
- [29] **Martinac, I., Murman, H., Lind af Hageby, A.** (2001) "Energy-efficiency and environmental management in a Swedish conference facility – case study: Sångs-Säby Courses & Conferences", In: Proceedings of PLEA 2001 – The 18th Conference on Passive and Low Energy Architecture, Florianópolis, Brazil, 7- 9 November.
- [30] **Scandic Hotels AB** (2003) Personal communication with Jan-Peter Berqvist, Director of Environmental Affairs at Scandic, March 12, 2003.
- [31] **Accor Hotels** (2003) "Sustainable Development, Environment". Available at www.accor.com, as accessed 11.04.2003.