

AN INSIGHT INTO GREEN PRACTICES AND ECO-LABELS IN THE HOTEL INDUSTRY

Maria-Cristina Iorgulescu¹

¹⁾*The Bucharest University of Economic Studies, Romania*

E-mail: cristina.iorgulescu@com.ase.ro

Please cite this paper as:

Iorgulescu, M.C., 2020. An Insight Into Green Practices and Eco-Labels in the Hotel Industry. In: R. Pamfilie, V. Dinu, L. Tăchiciu, D. Pleșea, C. Vasiliu eds. *6th BASIQ International Conference on New Trends in Sustainable Business and Consumption*. Messina, Italy, 4-6 June 2020. Bucharest: ASE, pp. 1164-1171

Abstract

As green economy is gaining more and more attention both in the business environment and in terms of public policies, the hotel industry has to align to a series of sustainable development indicators. The article presents a thorough literature review on the green practices implemented in the hotel industry, as well as hotel managers' perception on the possible barriers in implementing the principles of green economy. Furthermore, the paper focuses on the level of implementation of the main eco-labels that may be awarded in the hotel industry, recognized by the Global Sustainable Tourism Council. As officially-certified green hotels represent less than 10% of the accommodation units existing worldwide, the paper offers an interesting starting point for researching the factors that may determine hoteliers to invest in the development of a sustainability management system.

Keywords

green hotels, eco-label, certification, green practices

JEL Classification

Q20, Q50, Z31

Introduction

Environmental impact management has become a necessary practice for tourism companies aiming to maintain their competitive position, this being a way to attract a certain category of customers, but also a source of competitive advantage that allows cost reductions and market differentiation (Singh et al., 2014; Alonso-Almeida et al., 2017; Hsiao et al., 2018; Singjai et al., 2018), an increase in efficiency (Kularatne et al., 2019) and profitability (Geerts, 2014). As it is widely acknowledged that hotels are intensive energy consumers, the paper presents an insight into the main practices that accommodation units may implement in order to increase their energy efficiency and be more sustainable, taking also into consideration the main barriers that hotel managers allege for not adhering to green economy principles. Moreover, the article highlights the most important global Eco-labels or sustainable

certification programs recognized by the Global Sustainable Tourism Council, offering a snapshot of their spread and requirements. The information presented in the paper may be of great use for both hoteliers and academics, as the unprecedented crisis the tourism industry will be facing in 2020 (in the context of the Covid-19 pandemic) may require solutions for cost reductions or gaining new positions on the market and addressing new customer segments.

Literature review on green practices in the hotel industry

Starting from the idea that hotels are among the largest energy consumers in the tertiary sector, Zografakis et al. (2011) argue that renovating initiatives for existing units are financially attractive, paving the way for the implementation of energy saving measures, the exploitation of renewable energy sources and the rational use of energy, all of which are correlated with lower costs and offering more competitive rates on the market. However, recent research (Kularatne et al., 2019) indicates that while a more efficient waste management will directly contribute to financial benefits, reducing water consumption can lead to lower hotel efficiency, given that water is considered to be a particularly important resource for accommodation units, as it is correlated with the comfort of guests and, implicitly, may have future negative effects on demand.

The **reasons behind the implementation of environmental impact management practices** in the hotel industry include (Best and Thapa, 2013): the desire to reduce costs and increase efficiency, internal forces (such as management beliefs and organizational culture) and the pressure of the external environment (compliance with new regulations and customer requests). Ouyang et al. (2019) have demonstrated that the institutional environment has a great influence on hotels, in the sense of implementing management practices in environmental protection. They have proven that hotels are determined to enforce such practices by a number of institutional forces, such as: Government support, industry standards, competitor practices, customer expectations, the local community, and investors. Rahman et al. (2012) have demonstrated through an extensive study that included the U.S. hotel industry that accommodation units affiliated to international hotel chains are more energy efficient compared to independent hotel, as they adopt more frequently green practices. However, their research did not find any significant differences depending on the size of the hotel (considering hotel units with less than 100 rooms or more). Having all these in mind, research shows that the reasons why **hoteliers are still skeptical** about the implementation of technologies that allow the use of renewable energy include (Dascalaki and Balaras, 2004; Karagiorgas et al., 2006): *financial factors* (lack of financial power necessary for investments and uncertainty regarding the return on investment), *lack of human resources* (engineers) with experience in promoting and implementing projects in the field of renewable energy, *lack of specific information* in the field of technologies associated with renewable energy, *lack of feasibility* associated with such projects and the quality of the product created at the end, *the difficulty of integrating energy efficient instruments* in the area where the hotel is located, either for environmental reasons, or for aesthetic reasons or for violating traditional architecture.

Furthermore, the literature highlights the fact that in the process of implementing environmental protection practices in the hotel industry there are a number of **barriers**. Alonso-Almeida et al. (2017), for example, mention internal and external barriers, Hsiao et al. (2018) having a similar approach. *Internal barriers* mainly include a lack of knowledge about the importance of environmental protection strategies (correlated with a lack of understanding and misperception of this topic), financial barriers, management attitude and organizational culture. Regarding the last mentioned barrier, the human resource, through its aversion to change and lack of interest in environmental protection practices, plays a crucial role (Doody, 2010). The attitude of management is correlated with a number of financial

barriers, in the sense that hotel owners or managers are concerned with ensuring short-term profitability, meeting deadlines and projected budgets, given that the development of an environment protection strategy involves a considerable investment of time and money, with long-term results (Doody, 2010). Regarding *external barriers*, Alonso-Almeida et al. (2017) take into account customer skepticism (in the sense that some hoteliers believe that mentioning the ecological practices implemented in the hotel forms a wrong opinion of customers regarding the level of quality of services offered) and elements of legislation and certification (the process of implementing green practices being considered cumbersome). Findings presented in the literature suggest that customer skepticism is a barrier worth considering, as Nimri et al. (2017) also proved that tourists tend to consider that the choice of a green accommodation unit can mean a lower level of comfort, services that do not meet the luxury sector, but which are still sold at high rates.

Dascalaki and Balaras (2004) have developed a methodology (XENIOS) for evaluating the renovation potential of hotel units from the perspective of implementing technologies associated with renewable energy. Within the instrument developed by them, the energy saving measures taken into account by hotels were: installation of solar panels for hot water supply, installation of solar panels for heating swimming pools, production of hot water, solar-based cooling, sea-water cooling, installation of elevator control systems, use of energy-efficient equipment in administrative offices, reduction of energy consumption for lighting in certain areas, use of natural light in certain areas, use of a control system in the room, based on a magnetic key.

Trung and Kumar (2005), Best and Thapa (2013) and Alonso-Almeida et al. (2017) offer many examples of good practices in environmental impact management implemented in hotels. Parpairi (2017) has even made a classification of good green practices that hotels (new or existing) can implement, providing hotel owners or environmental engineers with an action plan designed to contribute to energy conservation and the improvement of the hotel product. Through a rigorous review of the literature, Alonso-Almeida et al. (2017) divide the green practices implemented in the accommodation units into two main categories:

- **basic environmental protection practices:** energy saving practices, water saving practices, waste management (various forms of recycling, reuse of certain items – when possible, „zero paper” programs), reduction of the use of environmentally hazardous cleaning products, training employees on environmental protection measures etc.;
- **advanced environmental protection practices:** solar-fired heating systems, measuring the hotel’s carbon footprint, providing employee training programs on environmental issues, rewarding employees who take environmental initiatives, environmental concerns in marketing campaigns, the existence of a long-term orientation regarding environmental protection, quantification of costs and savings in terms of energy consumption, implementation of an environmental protection management system, participation in global environmental protection activities, the existence of charging stations for electric cars, the creation of green products, the use of rainwater and other natural resources, the adaptation of the operating program to streamline the consumption of water and electricity, the use of recycled water for irrigation, use of solar panels, use of water from wells, ecological washing and drying of the textile inventory etc.

The need to implement green practices in the hotel industry can be correlated with the fact that recent studies (Kim et al., 2016; Wang et al., 2018; Merli et al., 2019) indicate a correlation between the care of the environment proven by hotels, customer satisfaction and customer loyalty. Merli et al. (2019) have shown through a study including hotels in Italy that accommodation units should make more efforts to promote their commitment and care for sustainable practices, and the existence of an eco-certification should be clearly communicated to guests, as these initiatives increase the availability of tourists to return to the same accommodation unit and to recommend it to the circle of friends and acquaintances.

In recommending and promoting green hotels, millennials and women have the greatest influence (Wang et al., 2018), but middle-aged people and men are more likely to pay a higher rate to stay in a green hotel (Kostakis and Sardianou, 2012). Moreover, Nimri et al. (2017) show that in attracting guests to green hotels, personal beliefs are less important, the decision to choose such an accommodation unit being strongly influenced by the belief that it thus contributes to caring for the environment. Similar conclusions were reached by Bashir et al. (2019).

The development of Eco-labels and sustainable certification programs in the hotel industry

The interest in developing sustainable or green practices in the hotel industry has been rising in the past 25 years, as around the world there have been developed several Eco-labels or sustainable certification programs that guide hospitality organizations to improve their activity and lower their impact on the environment. The level of development in this regard is escalating, as some sources (International Tourism Partnership and Green Hotelier, 2016) mention more than 140 Eco-labels worldwide, for the hotel industry, while other sources (Holiabile, 2019) estimate there could be even more than 200 of them, developed in different regions or countries, around the globe.

Since it is impossible to present all Eco-labels available worldwide, it is at least interesting to summarize the ones spread at international level, covering the highest number of hotels certified (Table no. 1). This will offer hoteliers and academics an overview on the practices and activity sectors that are “greened” in order to be awarded with the eco/sustainable/green certification. The standards to comply with are established by the Global Sustainable Tourism Council (GSTC, 2020), and in this regard the present paper focuses only on the eight certification programs (out of a total of 30) recognized by GSTC and developed at international/global level, not just at national/regional level: Biosphere Responsible Tourism, Earth Check, Green Globe, Green Growth 2050, Green Key, Green Tourism Active, Hilton LightStay, Travelife Standard for Hotels and Accommodations. All these Eco-labels and certification programs need to address the GSTC criteria imposed for the hotel industry, a snapshot of main issues to be solved being presented in Figure no. 1.









Effective sustainable management	Maximized social and economic benefits to the local community and minimized negative impacts	Maximized benefits to cultural heritage and minimized negative impacts	Maximized benefits to the environment and minimized negative impacts
<ul style="list-style-type: none"> • Sustainability management system • Legal compliance • Reporting and communication on sustainability policy • Staff engagement • Customer satisfaction • Accurate promotion • Buildings and infrastructure • Land water and property rights • Information and interpretation • Destination engagement 	<ul style="list-style-type: none"> • Community support • Local employment • Local purchasing • Local entrepreneurs • Exploitation and harassment • Equal opportunity • Decent work • Community services • Local livelihoods 	<ul style="list-style-type: none"> • Cultural interactions • Protecting cultural heritage • Presenting culture and heritage • Artefacts 	<ul style="list-style-type: none"> • Conserving resources • Reducing pollution • Conserving biodiversity, ecosystems and landscapes

Fig. no. 1 GSTC criteria for the hotel industry
 Source: created by the author, based on GSTC, 2016

The GSTC criteria, focusing on 4 main objectives, mainly address issues tackled by a series of eco-labels reviewed by Teng et al. (2012) in their research. The development of the green hotels’ market is still in its beginnings, as a study conducted five years ago by the website

GreenHotelWorld.com (cited by International Tourism Partnership and Green Hotelier, 2016) highlighted that only 6.2% of the hotels in the world have applied and have been awarded with an Eco-label or a sustainable certification, the continent with the highest ratio of officially recognized “green hotels” being North America (with 10.1% of the total accommodation units), followed by Europe (6.1%), the continent with the lowest density in this regard being Asia (0.9%).

Table no. 1 Main global Eco-labels and certification programs recognized by GSTC

Certification program	Assessment and criteria	Number of business certified	Region of implementation
	External audit, checking the compliance with the 17 sustainable development goals (SDG) imposed by the United Nations, covering 5 main sectors: climate change, environment, social, economy and culture	n.d.*, covering mainly hotels in North and Central America, Portugal and Spain	Developed in 1995, in Spain
	Independent audit, checking 10 benchmarking indicators	482 accommodation units	Developed in 1987 in Australia, it has been adopted as a recognized standard of Marriott International
	Independent audit, checking 44 core criteria, covering more than 380 indicators that are renewed twice every year	More than 500 business units, in 83 countries, on 5 continents	Developed in 1994 and located in Los Angeles (U.S.A.)
	Independent audit, checking more than 400 corporate social responsibility and sustainability indicators	n.d.	Brisbane (Australia)
	On-site audits, checking 13 categories, covering 130 criteria	3200 business units, in 65 countries	Developed in 1994 in Copenhagen (Denmark)
	Online assessment, checking GSTC and ISO 50001, 90001, 140001, 26000 standards	More than 130 business units	Cape Town, South Africa
	It is an environmental and energy management system, respecting the GSTC and ISO 14001, 50001 standards	Implemented at every Hilton unit worldwide, for more than 4600 business units in 120 countries	Developed in 2008 by Hilton Worldwide, U.S.A.
	Independent audit, checking several criteria adopted by GSTC	1300 hotel members, worldwide; the number of certified business units is not determined	London, U.K.

*n.d. – not determined

Source: created by the author, based on the official websites of each certification program

Most of the global Eco-labels recognized by GSTC and presented in Table no. 1 are awarded by foundations or non-profit organizations, based on third-party independent audits. While Green Key is the most widespread eco-label, the most interesting case is the one of Hilton Light Stay certification, which is a private corporate responsibility performance measurement instrument, the first one to be recognized by GSTC in the case of a large hotel group. Teng et al. (2012) and Baicu et al. (2019) noted that more and more hotel managers are aware of the importance of the industry's focus on the green hotels' development, authors emphasizing that green hotel programs provide considerable support through international experience in developing energy conservation and carbon footprint practices. In this regard, Teng et al. (2012) have carried out a centralization and analysis of the main eco-certification programs for the hotel industry, concluding that despite the existence of differences in the standards used by each program, there are a number of common evaluation criteria, which include: energy and water conservation measures and waste management. The other evaluation criteria include: corporate management regarding environmental protection, staff involvement, guest information, quality of hotel interiors, use of hazardous substances, social involvement and communication, procurement policies, transport, public catering. These being said, it is expected for the eco-labeling sector to keep attracting adherents.

Conclusions

As the interest in green economy and sustainability principles is increasing worldwide, hotels need to be able to identify and implement practices and measures for improving their energy efficiency. In this regard, the paper has presented an insight into the green practices hotels may implement, as well as the barriers and advantages of investing in environmental impact management. Considering the unprecedented crisis the tourism industry is facing in 2020 due to the Covid-19 pandemic, the World Economic Forum (2020) argues that business around the globe could shift more rapidly to implementing green practices. The hotel industry itself should innovate in this sector in order to survive, with the help of academia (Pamfilie et al., 2014), policy makers and non-profit organizations with international experience in implementing the green economy principles.

Acknowledgement

This work was cofinanced from the European Social Fund through Operational Programme Human Capital 2014-2020, project number POCU/380/6/13/125015 "Development of entrepreneurial skills for doctoral students and postdoctoral researchers in the field of economic sciences".

References

- Alonso-Almeida, M.M., Robin, C.F., Pedroche, M.S.C. and Astorga, P.S., 2017. Revisiting green practices in the hotel industry: A comparison between mature and emerging destinations. *Journal of Cleaner Production*, 140, pp.1415-1428.
- Ayoub, N., Musharavati, F., Pokharel, S. and Gabbar, H.A., 2014. Energy consumption and conservation practices in Qatar – A case study of a hotel building. *Energy and Buildings*, 84, pp.55-69.
- Baicu, C.G., Oehles-Sincai, I.M., State, O. and Popescu, D., 2019. Bioeconomy and Social Responsibility in the Sustainable Hotel Industry. *Amfiteatru Economic*, 21(52), pp.639-653.
- Bashir, S., Khwaja, G., Turi, J.A. and Toheed, H., 2019. Extension of planned behavioral theory to consumer behaviors in green htoel. *Heliyon*, 5, e02974.

- Best, M.N. and Thapa, B. 2013. Motives, facilitators and constraints of environmental management in the Caribbean accommodations sector. *Journal of Cleaner Production*, 52, pp.165-175.
- Dascalaki, E. and Balaras, C.A., 2004. XENIOS – a methodology for assessing refurbishment scenarios and the potential of application of RES and RUE in hotels. *Energy and Buildings*, 36, pp.1091-1105.
- Doody, H., 2010. What are the barriers to implementing environmental practices in the Irish hospitality industry? *Tourism and Hospitality Research in Ireland Conference*. [pdf] Available at: <<http://www.shannoncollege.com/wp-content/uploads/2009/12/THRIC-2010-Full-Paper-H.-Doody.pdf>> [Accessed 1st May 2020].
- Farrou, I., Kolokotroni, M. and Santamouris, M., 2012. A method for energy classification of hotels: A case-study of Greece. *Energy and Buildings*, 55, pp.553-562.
- Geerts, W., 2014. Environmental certification schemes: Hotel managers' views and perceptions. *International Journal of Hospitality Management*, 39, pp.87-96.
- Global Sustainable Tourism Council, 2016. *GSTC Industry Criteria – Version 3, with Suggested Performance Indicators for Hotels and Accommodations*. [pdf] Available at: <<https://www.gstcouncil.org/wp-content/uploads/GSTC-Industry-Criteria-for-Hotels-with-indicators-Dec-2016.pdf>> [Accessed 2nd May 2020].
- Global Sustainable Tourism Council, 2020. *GSTC – Recognized Standards for hotels*. [online] Available at: <<https://www.gstcouncil.org/gstc-criteria/gstc-recognized-standards-for-hotels/>> [Accessed 2nd May 2020].
- Holiabie, 2019. *Green hotels: understanding eco-labels*, [online] Available at: <<https://www.holiabie.com/news/understanding/eco-hotels/>> [Accessed 2nd May 2020].
- Hsiao, T.Y., Chuang, C.M. and Huang, L., 2018. The contents, determinants, and strategic procedure for implementing suitable green activities in star hotels. *International Journal of Hospitality Management*, 69, pp.1-13.
- International Tourism Partnership and Green Hotelier, 2016. *Know How Guide: Sustainable Hotel Certification Schemes*. [pdf] Available at: <<https://www.greenhotelier.org/wp-content/uploads/2016/09/Know-How-Guide-to-sustainable-hotel-certifications1.pdf>> [Accessed 2nd May 2020].
- Karagiorgas, M., Tsoutsos, T., Drosou, V., Pouffary, S., Pagano, T., Lara, G.L. and Mendes, J.M.M., 2006. HOTRES: renewable energies in the hotels. An extensive technical tool for the hotel industry. *Renewable and Sustainable Energy Reviews*, 10, pp.198-224.
- Kim, J.Y., Hlee, S. and Joun, Y., 2016. Green practices of the hotel industry: Analysis through the windows of smart tourism system. *International Journal of Information Management*, 36, pp.1340-1349.
- Kostakis, I. and Sardianou, E., 2012. Which factors affect the willingness of tourists to pay for renewable energy? *Renewable Energy*, 38, pp.169-172.
- Kularatne, T., Wilson, C., Månsson, J., Hoang, V. and Lee, B., 2019. Do environmentally sustainable practices make hotels more efficient? A study of major hotels in Sri Lanka. *Tourism Management*, 71, pp.213-225.
- Merli, R., Preziosi, M., Acampora, A. and Ali, F. 2019. Why should hotels go green? Insights from guests experience in green hotels. *International Journal of Hospitality Management*, 81, pp.169-179.
- Nimri, R., Patiar, A. and Kensbock, S. 2017. A green step forward: Eliciting consumers' purchasing decisions regarding green hotel accommodation in Australia. *Journal of Hospitality and Tourism Management*, 33, pp.43-50.

- Ouyang, Z., Wei, W. and Chi, C.G., 2019. Environment management in the hotel industry: does institutional environment matter? *International Journal of Hospitality Management*, 77, pp.353-364.
- Pamfilie, R., Giușcă, S. and Bumbac, R., 2014. Academic research – a catalyst for the innovation process within companies in Romania. *Amfiteatru economic*, 16(37), pp.759-769.
- Parpairi, K., 2017. Sustainability and Energy Use in Small Greek Hotels: Energy Saving Strategies and Environmental Policies. *Procedia Environmental Sciences: International Conference on Sustainable Synergies from buildings to Urban Scale*, SBE16, 38, pp.169-177.
- Rahman, I., Reynolds, D. and Svaren, S., 2012. How „green” are North American hotels? An exploration of low-cost adoption practices. *International Journal of Hospitality Management*, 31, pp.720-727.
- Rosselló-Batle, B., Moia A., Cladera, A. and Martínez, V., 2010. Energy use, CO₂ emissions and waste throughout the life cycle of a sample of hotels in the Balearic Islands. *Energy and Buildings*, 42, pp.547-558.
- Singjai, K., Winata, L. and Kummer, T.F., 2018. Green initiatives and their competitive advantage for the hotel industry in developing countries. *International Journal of Hospitality Management*, 75, pp.131-143.
- Singh, N., Cranage, D. and Lee, S., 2014. Green strategies for hotels: Estimation of recycling benefits. *International Journal of Hospitality Management*, 43, pp.13-22.
- Teng, C.C., Horng, J.S., Hu, M.L., Chien, L.H. and Shen, Y.C., 2012. Developing energy conservation and carbon reduction indicators for the hotel industry in Taiwan. *International Journal of Hospitality Management*, 31, pp.199-208.
- Trung, D.N. and Kumar, S., 2005. Resource use and waste management in Vietnam hotel industry. *Journal of Cleaner Production*, 13, pp.109-116.
- Tsai, K.T., Lin, T.P., Hwang, R.L. and Huang, Y.L., 2014. Carbon dioxide emissions generated by energy consumption of hotels and homestay facilities in Taiwan. *Tourism Management*, 42, pp.13-21.
- Wang, J., Wang, S., Xue, H., Wang, Y. and Li, J., 2018. Green image and consumers' word-of-mouth intention in the green hotel industry: The moderating effect of Millennials. *Journal of Cleaner Production*, 181, pp.426-436.
- World Economic Forum, 2020. *Could COVID-19 give rise to a greener global future?* [online] Available at: <<https://www.weforum.org/agenda/2020/03/a-green-reboot-after-the-pandemic/>> [Accessed 2nd May 2020].
- Xuchao, W., Priyadarsini, R. And Eang, L.S, 2010. Benchmarking energy use and greenhouse gas emissions in Singapore's hotel industry. *Energy Policy*, 38, pp.4520-4527.
- Zografakis, N., Gillas, K., Pollaki, A., Profylienou, M., Bounialetou, F. and Tsagarakis, K.P., 2011. Assessment of practices and technologies of energy saving and renewable energy sources in hotels in Crete. *Renewable Energy*, 36, pp.1323-1328.