ESTRATÉGIAS DE MARKETING VERDE EM REDES HOTELEIRAS

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RESUMO

Com o aumento do turismo como forma de lazer, a indústria hoteleira passou a ser de grande importância para as questões ambientais e começou a adotar práticas verdes como diferencial. Este artigo tem por objetivo analisar como o marketing verde está sendo utilizado nas redes hoteleiras para atrair clientes, e como as mesmas impactam e influencia na tomada de decisão dos consumidores. As práticas hoteleiras podem ser adaptadas à escolha da região, tipos de clientes, missão e visão do hotel e o impacto que o mesmo quer ter sobre a comunidade que está inserido, como por exemplo com a escolha adequada dos materiais, tanto para a construção do edifício como para sua manutenção, reduzindo o consumo de energia e demais recursos básicos, treinamento de funcionários e serviços oferecidos aos clientes.

PALAVRAS-CHAVE: Marketing verde, Redes Hoteleiras, Sustentabilidade, Comportamento do Consumidor.

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1. INTRODUCTION

As business and leisure tourism are constantly growing, hotel chains need to deal with situations such as environmental problems such as global warming, the depletion of the stratospheric ozone layer and over-consumption of non-renewable Resources (CHAN, 2013). The hospitality industry have responded to these problems and increasing the importance they give to taking care of the environment and the help they can give to achieve sustainability (TOLKES, 2018). In this context, the implementation of Sustainable Hotels has become an extremely important factor. Sustainable practices in hotels may be present in building process, in the choosing the materials to be used, in their daily activities or in changing operational practices, like diminishing their use of residues or materials that guests use, like towels (ELRIKE et al., 2017).

When hotel search for alternative products, these are managed according to the principles of sustainable tourism, positively aligning sustainability criteria with the needs of visitors, industry and host communities (TOLKES, 2018). A very important point for these hotels is the Leadership in Energy and Environmental Design (LEED) certification, which grants a building a reputation of being sustainable, if they meet preset standards in the building process. Some operational problems for sustainable hotels can be solved through programs like IHG's Green Engage, the use of which is ever-growing among hotel chains (MEDEIROS et al., 2011).

Green Marketing is used when a company seeks to design, promote, price and distribute products in a way that promotes the promotion of environmental protection (SUKI et al., 2016). The promotion of these hotels through Green Marketing should as well be considered differently from usual marketing strategies, since it could add good or bad elements to the hotel's reputation, as they make possible for people to understand better how everything works in the hotel and for things that need to improve too (HASAN et al., 2015).

Other medias can also play an important role in promoting a hospitality company, mainly social media, as they generate visibility to hotels and are very important to determine how people perceive a hotel as they search for one. A possible guest may feel motivated knowing they will be taking actions that help sustainability, as reutilization of towels or diminishing energy and water

consumption. The possible guest may as well feel motivated to share their experience in social media, arousing the will on costumers of knowing and experiencing this different kind of hotel (BOARIA et al., 2014).

2. METHODOLOGY

The aim of this research is to identify sustainable practices in sustainable hotels, focusing in papers. A qualitative approach is used to deepen this topic and better understand the problem with its idiosyncrasies (RICHARDSON, 2014). This review follows the scoping of literature reviews as proposed by Arksey and O'Malley (2005), and further corroborated by Levac et al. (2010).

Stage 1: identifying the research question

The research question formulated was: How do sustainability strategies in hotel chains impact (or determine) consumer decision-making?

Stage 2: identifying relevant studies

For this stage, the search for studies in the literature was based on Scopus, Science Direct, Web of Science and Emerald. Due to the similarities, Scopus and Web of Science were analyzed with the same criteria, while Science Direct and Emerald were analyzed individually.

As in systematic literature reviews, were adopted inclusion and exclusion criteria, favoring breadth rather than depth in the selection. Thus, we developed the Boolean expression (Sustainable development OR sustainab*) AND (marketing OR management) AND (tourism OR hospitality). As for the inclusion and exclusion criteria, for Scopus and Web of Science databases, we selected those being a scientific publication (peer reviewed papers published in journals), being issued in English, obtaining the Boolean Expression in the "Title, Abstract, Keywords", and published in the databases between January 2008 and march 2018.

For Science Direct we used the same Boolean expression however, we did not restrict the search for "Title, Abstract, Keywords", due to the absence of this selection criteria. Initially, 189 papers were found, thus we restricted the search for "articles", obtaining 118. In the Emerald, we used the same Boolean expression, we did not restrict the search for "Title, Abstract, Keywords", due to

the absence of this selection criteria. Initially 9795 papers were found, thus we restricted the search for "research paper", and published between January 2008 and march 2018, obtaining 2224.

Stage 3: study selection

After the pre-selection of the papers through the inclusion and exclusion criteria in the databases and the revision of the abstracts, 193 articles were reviewed and 20 were subjectively selected for the analysis according to the suitability for this study, based on the authors experience.

In order to summarize the results of the scoping study method, the number of scientific publications identified by each inclusion and exclusion criteria can be observed on Table 1. It is important to emphasize that the papers identified and selected does not represent all the existing literature on the Green Marketing in Hotel chains.

Table 1- Selection of scientific publications on the Green Marketing in Hotel chains

Results	Science Direct	Scopus	Web of Science	Emerald	Total
Number of papers without the application of selection filters (only with the application of the Boolean expression: (Sustainable development OR sustainab*) AND (marketing OR management) AND (tourism OR hospitality)	189	44.300	2.354	9.795	56.638
Number of papers published in academic/scientific journals	118	32.357	1.266	2.224	35.965
Number of papers with the Boolean expression in the "Title, Abstract, keywords"	Not Aplicable	4,261	543	Not Aplicable	7.146
Number of papers selected due to the revision of the articles' abstracts	67	35	63	59	224
Final portfolio selection according to authors expertise	12	11	23	7	53
Papers selected	20				

2 Hotel Chains Approach

The aim of this study is to analyze five global hotel chains and their green practices, as to which certificates they possess, which materials they use, how they operate and connect with their customers. At the same time, we analyse how costumers behave in sustainable hotels, be it in online researches before

lodging, when they are at the hotel and the feedback they provide to social media or even to the hotel after they leave it.

2.1 Tendencies in customer behavior regarding sustainability

The tourism industry is constantly growing and developing as years go by, specially since international travelling has increased 10% to 15% recently (BOTHA et al., 2017). This industry needs a great number of resources to exist, causing a great environmental impact. Some estimates say the number of international trips may increase to 1.8 billion in 2030, which will have a high impact in sustainability (LAW et al., 2014).

Yu, Li and Jai (2016) highlight that some countries, such as the United States, as well as some regions in Asia and Europe, recognize the hospitality industry as one with high negative impacts on the environment. In Europe, hotels face a limited consumption of 39 terawatt per hour of energy in a year, and each guest has its water use limited to 440 litres of water in a night. These regulations seek to assure that hotel chains will be more sustainable and have recently received global attention.

The implementation of sustainable hotels might help not only diminishing environmental impacts, but also reducing operational costs, bringing some advantages to owners. A research made by TripAdvisor in 2013 found, after interviewing more than 30.000 travelers, that 79% of them believe implementing green practices is important in hotels (Yu; LI; JAI, 2016); (TUN-MIN; LI, 2016).

However, a large number of people is still indifferent to sustainable practices or do not support these practices at all, generally for they believe that products with cleaner origins or recycled are worst when compared to those used in hotels that do not show care for environmental problems (HSIAO, 2014).

There is still a gap in understanding how different kinds of green practices may affect costumer's overall satisfaction. Some of these practices are considered as an essential part of hotel services and may exert more influence in client satisfaction. Therefore, a different look to the impact of different green practices in customer satisfaction is required (Yu; LI; JAI, 2016).

Another important factor in implementing sustainable hotels is that, in internet and social media, guests are able to share their experiences, the practices they saw at the hotels, the quality of offered products compared to the

ones offered in conventional hotels. This kind of tool can also help hotel chains owners in analyzing which measures are obtaining a larger success and the ones which are not being well seen, so they can adapt to their reality (HSIAO, 2014).

Yu, Li and Jai (2016) add that in 2013, TripAdvisor has launched a program called Green Leaders, which seeks to recognize hotels that make efforts into achieving greener practices to the environment, making it easier for travelers to identify them. Hotels may be a part of the shortlist if they meet minimum requirements, as recycling, controlling the use of energy, using efficient lamps, and reutilization towels and bed sheets. This program still has a special section where the user may offer a feedback about practices they discovered while lodged, and find the following questions:

- 1. How can lodgers perceive sustainable practices implemented by hotels?
- 2. Which is the general impact of this ecological experience from guest in their satisfaction with the hotels?
- 3. How each ecological individual practice influences guest satisfaction with hotels?

TripAdvisor is the world's largest online travelling company, operating in 45 countries. They have searched for hotels with LEED certifications for their researches with 4.300 hotels that participate in Green Leaders. This program has four levels: Platinum, Gold, Silver and Bronze, based in ecological and sustainable practices.

Customer perception about a hotel with sustainable practices may be considered as a psychological concept which involves feeling well-being and pleasure that come from a good or service. Customer analysis is extremely important for hotels to survive, independently on whether they apply less aggressive practices to the environment, so hotels with sustainable practices still need to worry about what their guests feel (TUN-MIN, 2016).

When lodgers experiment successfully these ideas, their satisfaction is generally higher in sustainable hotels when comparing to non-sustainable ones, and it increases when ecological hotels engage in sustainable practices in public service (for instance, helping the development of a community) instead of motivating themselves with profit (HSIAO, 2014).

Sustainable practices, when noted by customers and considered as positive practices, may provide a large benefit for hotels when compared to others. However, if the practices are perceived as negative, the impacts may go well beyond a costumer satisfaction index, causing large losses in the number of guests the hotels receive (YU; LI; JAI, 2016).

Guests do not only seek information on internet, but also actively share their experiences as cocreators or codistributors in review websites. They use of these is constantly growing and has increased concerns in hotels about customer satisfaction. Online platforms like TripAdvisor may help owners understanding which points guests enjoy or don't. Then, the researches in this paper have device to analyze online reviews to understand real experience from guests in ecological hotels and identifying relations between ecological practices and guest satisfaction (YU; LI; JAI, 2016).

Yu, Li and Jai (2016) point that training is needed to form qualified professionals, since generally staff has had very few information on environmental issues, and then may not be capable of implementing green practices or will be unable to explain them to guests when they check in. Then, hotels should be certain their staff understand the green practices they apply and how to interact with guests about it, providing training courses or including environmental issues on existing courses to increase knowledge.

Some authors believe that the most important factors on customer opinion is the utilization of renewable energy, as using LED lamps, heating water with external panels and having greener environments. In contrast, less impact in public opinion is seen when environmental education is used, which would show guests where sustainability is been really put in practice (YU; LI; JAI, 2016).

Hotel management should inform better their customers about their practices, for a better ecological appeal to exist and guests to understand how the hotel works, giving incentives for them to participate consciously and better understand decision-making processes in incentivizing green practices (Goldstein et al., 2008). Hotel chains that possess and care about communication with customers about green practices generate a good corporative image, with a great reputation and good profits (SALVADÓ; JAVIER, 2014).

TripAdvisor and Green Leaders are joined by other social media platforms as options given by the market to promote their business, as customers might

share their experiences in green hotels in platforms like Instagram, Facebook, Twitter, YouTube and Pinterest (BOARIA et al., 2014). This interaction and connectivity among people through social media make several approaches to sustainable development easier, creating more job opportunities for many people, especially digital influencers.

The use of these digital platforms as emerging structures of communication is growing in society, and they have become great opportunities for enterprises to using green marketing and communicating about their hotels with green practices. However, social media has a power of amplifying people's voices, so companies should be careful about publications, promotions and comments in these websites. This capacity the enterprise must have of relating to a public that masters social media, through experiences in hotels with sustainable practices and caring about the environment, generally leads to positive results regarding the study of customer behavior in sustainable tourism (BUDEANU, 2013).

Sustainable tourism offers a different concept for customers, in parallel with promotions involved in the social media of the company, related to practices and organization of ecological aspects of social quality. This sustainable tourism may aggregate value to sustainable campaigns with learning, as they include comments and increase public interactivity.

Then, hotel chains have a challenge in identifying which is the best way to act in social media, so that their promotions and interactions with their public will be as good as possible and applying customer suggestions for the improvement of their business (BUDEANU, 2013).

2.2 Green Marketing

There are different concepts for Environmental, Green or Ecological Marketing. Environmental Marketing concerns hydric resources and energetic efficiency, but Green Marketing goes beyond these problems, covering ecosystem concerns in general, as well as problems such as extinction of animal species (PAPADAS; AVLONITIS; CARRIGAN, 2017).

Rosenbaum and Wong (2015) propose three concepts of Green Marketing, based on positions from the American Marketing Association (AMA). In the point of view of retail, Green Marketing represents environmentally safe

products; looking in the social side, Green Marketing prioritizes products which have minimal negative impacts in the environment; environmentally, the concept of AMA (2013) is described "as organizational efforts to produce, promote, package, and reclaim products in a manner that is sensitive or responsive to ecological concerns" (ROSENBAUM; WONG, 2015, p.2).

Rosenbaum and Wong (2015) compare the social concept in Green Marketing in AMA (2013) and Polonsky (1994), who says Green Marketing represents practices which favour environmental-friendly commercial exchanges. Peattie (2001) puts Green Marketing as a set of marketing practices which seek to relieve negative impacts that products and production systems in environment and society, as well as promoting new and cleaner ways of production.

Green Marketing strategies focus is in sectors in commerce and services which are most harmful to the environment due to how much they explore. Many companies are paying more attention to sustainable attitudes, since they depend on environment to exist, as oil and mineral industries or tourism and hotel chains (PAPADAS; AVLONITIS; CARRIGAN, 2017).

Green Marketing is also connected to trends and applicable forms of strategies. Among these, there is a focus in understanding which green practices cause satisfaction and which cause dissatisfaction in customers, to elaborate new strategies where highlighting and improving green practices towards satisfying clients is the priority (YU et al., 2015).

Some guests are willing to pay higher prices that they would pay in usual hotels in order to stay in more sustainable hotels, since these people might think they are making good decisions in paying slightly more if they feel they make a difference for the environment (TUN-MIN; LI, 2016).

The name "green hotel" itself is a good marketing strategy which might captivate clients. Another good strategy is publicly announcing the green practices in hotels and working in capacitating hotel workers to be able to respond when questioned by guests about these practices (YU et al., 2015).

Industries are as well adopting Green Marketing strategies as a competitive advantage and a differential in the market, using new strategies and innovating, to make share they will grow with tourism markets. Innovation is an important tool, in parallel with sustainability and diminishing environmental

impacts, help in development and creativity in products used by green companies (HASAN et al., 2015).

The quality in the service of Green Hotels, through an organized management, integrates with an optimal service of marketing, granting higher customer satisfaction. With that, it is understood that this process of satisfying customers aggregates to sustainable hotels new customers, and old clients will always come back and share their experiences and satisfactions, which might generate threats or opportunities for enterprises (LEE et al., 2017).

Lau (2017) in a survey, found that people thought that environmental problems would increase responsibilities for enterprises to improve, as well as their costs and operational systems, and they would be responsible in improving social well-being strategically to create positive relations with governments, workers and involving with society (AMINUDIM, 2013).

The government possesses great influence on environmental problems and is able to provide support for companies, providing information. Another great influence are local communities, which should promote environmental practices, increasing the importance of ecotourism and creating benefits for that location. Botha and Engelcrecht (2017) sets four pillars for ecotourism: conserving and promoting natural and cultural patrimony, sustainable management of the environment, participation of local community and satisfaction of the tourism. Destinations for sustainable locations may sustain a touristic demand through promotion of informative marketing, incorporating ecotourism projects.

2.3 Green Practices in Hotel Chains

The sector of construction corresponds to around 40% of the use of energy in making buildings. With that, our focus is in the industry of hospitality, which has other categories which should be monitored not to impact too much the environment, as the consumption of energy, the waste of residues, material used and other things (ELRIKE et al., 2017).

Sustainable building practices are gaining more space and are more present in construction sites where people transit daily, as universities, hotels and airports, which correspond to 40% of energy spent in building. In this way, hotels may help achieving a sustainable architecture by using renewable sources of

energy, producing less waste and carefully using ecological supplies in building, so to impact less the environment (ELRIKE et al., 2017).

Hotels which seek to be sustainable must go beyond the building process and actions towards sustainability but involve their guests in this responsibility. Some actions to be taken are offering candlelight dinners, educative stands, provide advantages to clients who give up on doing the room's cleaning themselves, and several other actions (JAYAWARDENA et al., 2013).

For a hotel to be labelled as a "Green Hotel", it must meet a series of practices towards sustainability. The main Green Building practices, which include Green Hotels, are: 1) optimizing the use of energy; 2) optimizing the use of water; 3) reduce solid waste produced (MOUSAVI; HOSKARA; WOOSNAM, 2017).

Mousavi, Hoskara and Woosnam (2017) propose in their research a sustainable hotel model. They believe sustainable hotels should comprehend the following dimensions: 1) environmental; 2) social; 3) economic; 4) cultural; 5) architectural; 6) technological. Green Hotels can improve their profits in the long term, since with green operations there is less cost and brand value increases. This can be considered as another advantage for hotels, if they decide to seek sustainability.

Sustainability itself is a broad concept. Different areas of society or different sectors in companies which seek for this way of seeing the world and how their actions impact it should integrate if they want to reach the proposed goals. In hotels this is not different, since from management to guests, there must be an alignment of goals, so that buildings, activities, philosophies and beliefs in the organization are all set towards sustainability.

Several green practices are becoming more involves in hospitality. They seek to reduce energy consumption and food waste, with focus to help in climate change (CRACKNELL et al., 2015). There are some programs which analyses sustainable hotels practices, as American Hotel and Lodging Association (AHLA), UK's ITP Hotel Environmental Charter, Green Seal, IHG's Green Engage, Energy Star, Green Key Programs and Green Globe (CRACKNELL et al., 2015).

The American Hotel and Lodging Association is an organization which provides helpful information about hotel consumption. For instance, they affirm the use of energy in air-conditioners corresponds to 40% of the energy used;

which compares to the spending in lighting (25%), water heating (15%), food sectors in restaurants and pubs (9%) and equipment such as elevators (7%).

The IHG Green Engage System is an online environmental sustainability innovation platform, which offers means to hotels to measure and manage their environmental impacts. There are 200 green solutions projected to help reducing water, energy and residues, reducing environmental impact. This system has four levels in energy certification and the hotels which get to level three or four are the ones who reduce their consumption up to 25%.

Level 1 is a requirement for all hotels, proposing ten solutions for immediate reduction in spending of money and energy, including tracking consumption data, creating an environmental-friendly team and installing efficient energy in bedrooms. In Level 2, hotels go further in measures as sustainable buying, and see more benefits. In Level 3, hotels have mastered the basics in sustainability and start to install energy-efficient equipment. In Level 4, hotels demonstrate innovative and sustainable approaches (IHG, 2018).

IHG is also concerned in providing optimal hospitality for each person to feel valued in their places. Each hotel chain has its ways to dealing with guests. Some hotels in their system are: Intercontinental, Hualuxe Hotels and Resorts, Resorts Crowne Plaza, Hotel Indigo, Even Hotels, Avid Hotels, Holyday Inn, Holyday Inn Express, Holyday Inn Resort, Holyday Inn Club Vacations, Staybridge Suites and Candlewood Suites (KUMAR VERNA et al., 2017).

Other important factors in evaluating sustainable hotels are some classification systems based on predetermined criteria and sub criteria. One of the most important of those is the Leadership in Energy and Environmental Design (LEED) certificate. The LEED certification was created by the U.S. Green Building Council (USGBC) in 1998 to offer leadership and innovation in companies or in residential environments (CHAN, 2018).

For a construction to have a LEED certification, in needs to be in a sustainable location (easy to access and transport to), be efficient in its handling of water and energy, provide a quality internal environment and innovate with sustainable supplies and resources. Two big impacts are evaluated, social (in construction industry) and environmental (in daily operations). This certification is seen by hotels as a differential they can seek when compared to other hotels (MEDEIROS et al., 2011).

Chain (2018) adds that in 1990 a new certification for sustainable buildings was creates, the Building Research Establishment Environmental Assessment Method (BREEAM). More than 530.000 building projects possess this certification, being one of the most important BESPOKE, the most used in Europe, which arrived at Brazil in 2011.

BREEAM was created in the United Kingdom, and it is present in 76 countries, with 652.900 certificates in the world and three in Brazil. Reid et al (2017) characterizes sustainable practices within BREAAM and LEED in eleven categories: regional property, sustainable use of soil, energy, residues, location of the building and transportation close to it, environmental quality plus health and well-being, pollution, innovation, management, water efficiency and supplies. The innovation category includes sustainable practices related to health and well-being, as thermal comfort, design, lighting, sustainable supplies with low emission levels. Another important category for constructions is supplies, since what is used must be thought with environmentally-friendly supplies, and construction planning must be done so nothing will be lost. The water category is about reducing water use in showers, toilet bowls and taps, diminishing water influx. Capturing water from rainfalls is an idea for this, since it can be reutilized in toilet bowls or in watering plants (MEDEIROS et al., 2011).

As a competitive advantage, companies and hotel chains are searching for green practice innovations, which is added to the fact they need to reduce costs and enhance brand value as green enterprises. These improvements can come with management and social performance. Sustainable architecture has become a trend. Wang Zhe et al (2011), whilst talking about a pavilion in Hong Kong and its architecture, claims there are several strategies for diminishing impacts and costs in building sites. The pavilion in Hong Kong possesses natural lighting with glass walls structured with steel, which also increases thermal comfort inside the building without the need for air-conditioners.

The need for sustainable development comes largely because we live in days when climate is changing. Tourism takes responsibility in improving green economy and environmental impacts. Innovation and sustainability are very important elements in the competitive market of this century, bringing advantages and opportunities for hotel companies to connect more with green practices (BOHDANOWICZ, 2005).

The Global Council for Sustainable Tourism has created a new understanding on sustainability for all hotel chains. For the council to approve them, they need to meet four important items: effective sustainability planning, social and economic improvements for society, improving of cultural patrimony and reducing environmental impact.

The Energy Star program was projected as voluntary work promoting economic improvements through innovations, which can be applied in hotels, shopping centres, industries, business centres, clubs or hospitals. Its certification considers buildings which consume less energy than others. To use this program, the building should possess equipment with low energy demand, less environmental impact and less cost. This project is a trademark belonging to the United States government. (WORLD PUMPS, 2011).

The Green Globe certification is based in performance of tourism companies regarding sustainability. It possesses 380 compliance indicators, based in international standards as the global criteria of tourism by the Sustainable Tourism Council (STC) Partnership, ISO 9001/14001/19011. This certification is given only to companies as retails, business centres, cruise ships, golf courses, hotels and resorts, events, organizations, restaurants, spas or travel or transportation companies. To associate, an enterprise needs to contact a Green Globe central in Los Angeles (GREEN GLOBE, 2018).

One pioneer hotel in green practices is Hotel Crowne Plaza Copenhagen Towers, in Denmark, with 366 bedrooms. In 2009, this hotel joined the UN Global Pact, the largest project in Entrepreneurial Social Responsibility. Its profile was thought to be sustainable since the construction of the building and internal details going to its gastronomy, training of staff and waste disposal. An innovation presented by this hotel regarding sustainability is that they provide ergometric bicycles which can turn their energy into electricity, generating power in the building, providing another incentive for guests to exercise physically, and connecting to guests' personal phones to feed them information about how much energy they are producing (ESTADÃO, 2018).

This hotel also possesses 2500 solar panels which produce 200 GWh every year, waste transformed in biogas and fertilizers, and biodegradable hygiene product bottles. It is considered to be pet-friendly and possesses Green Building and Green Key certifications. It also possesses a water-cooling system

in underground certification and a Variable Air Volume system to control airconditioners, lighting with LED systems, and aims to reach sustainability without compromising guest comfort and quality (WORLD PUMPS, 2011).

Starwood and Marriot are other companies with these initiatives as well. Marriot has launched a new social responsibility campaign with the goal of promoting the growing of their business balancing the needs of associates, customers, owners, environment and community. Their goal is to reduce water consumption in 15%, carbon in 30%, waste for landfills in 45%, food waste in 50% and contributing with 15 million hours of voluntary work associated with the community by 2025. They also want to invest 5 million dollars to raise and deepen programs and partnerships to develop hospitality skills amongst young populations, as well as women, disabled people, war veterans and refugees. They want to have 30% of their energy use coming from renewable sources, and to have all their hotels with LEED certificates (KUMAR VERMA et al, 2017).

Another chain, Hotel Holiday Inn, became in 2011 the first hotel chain to link the LEED certificate with an existing program, Green Engage. As an example, Hotel Holiday Inn Parque Anhembi, located in northern São Paulo, in Brazil, was inaugurated in 2004 and can host up to 1560 people in 780 rooms. They possess meeting rooms and conferences and leisure areas with heated pools, gyms and physiotherapy clinics. Their goals are divided in three programs of corporative responsibility: Green Engage, IGH Academy, IHG Shelter in a Storm Program. For a sustainability program in this hotel, IGH has performed has mapped and studied internal and external causes as guests, corporative customers, local communities, staff workers, academical institutions and non-governmental organizations (NGOs) (IHG, 2018).

With them, this hotel has created some actions in the year of 2016: Planet Hour (March), donation of books (June), donation of clothing (July) visits to asylums and IGH Racing Around the World (September) and donation of toys (October). The level of energy consumption in 2015 has fallen 6,35% in 2015 from the previous year, the consumption of gas has reduced 24%, of water in 32,5% and waste in 35%. The hotel is today classified in level 2 in the program Green Engage (IHG, 2018).

The Kimpton Hotels are part of Green Leaders program from TripAdvisor, to explain the impact of their green practices on guests and people who don't

know them yet. This was the first hotel chain with a portfolio with certification from Green Key Eco-Rating, which was awarded several environmental prizes. Kimpton Hotel Wilshire, Kimpton Hotel Palomar Philadelphia and Kimpton Hotel Monaco Philadelphia are hotels certificated by the US Green Building Council. This chain possesses a partnership with Clean the World to help recycle soup and hygiene products (KIMPTON, 2018).

Another hotel chain in a sustainability program is NH Hotel Group, which is the third largest hotel group in Europe, for their innovations in reducing water used to wash towels and sheets, reduce energy consumption, recycling programs, use of LED lighting and information for hotel staff and guests alike to help the environment.

NH Collection Barcelona Constanza (in Spain), NH Zurich Airport (Switzerland), NH Collection Berlin Mitte am Checkpoint Charlie and NH Berlin Postdam Conference Center (Germany) are hotels with electrical vehicle charging points and provide guests with bicycles for their use. Since 2008, the amount of carbon produce in these hotels was reduced in 70%, as well as the water consumption (in 30%) and energy consumption (28%). These hotels are listed in Green Leaders at TripAdvisor as Green Hotels, and most of them are pet-friendly as well. (NH HOTEL GROUP, 2018).

NH Hotels located in Spain, Italy, Germany, Netherlands and Belgium have created in 2011 the CORK2CORK program, to incentive recycling of two tons of cork stoppers, which has managed to recycle almost 2000 kilos of cork stoppers. This policy was implemented in partnership with Amorim, a global cork stoppers productor. Their goal was to give a better use to cork stoppers in bottles used in the hotels, and they were reutilized as acoustic isolation, contributing to less noise pollution and also for the heating of the building in some coatings.

4 Data Analysis

Papers with case studies and sustainable practices in different hotel chains had as a result the following table:

Table 2 - Hotels with sustainable practices

Práticas Sustentáveis	Crowne Plaza - Denmark	Marriot hotels	Holiday Inn hotels	Kimpton hotels	NH Hotels
Green Building Certific ation	Х				
Green Key Certification	Х			Х	
LEED Certification	Х	Х	Х		
Green Engage Progra m			Х		
IHG Academy			Х		
GreenLeaders	Х			Х	
Green Building Council				Х	
CORK2CORK Progra					Х
Solar Panels	Х				
VAV (Variable Air Volume) System	Х				
Ergometric bicycles which generate electricity	х				
Cooling systems in underground	Х				
LED lamps	Х				Х
Waste converted in biogas	X				
Biodegradable hygiene bottles	Х			Х	
"Serve 360" – susteinability campaing		Х			
Communitary actions		Х			
Eletrical vehicle charging					Х
Pet friendly	Х				Х
Reducing of carbon, water and energy consumption	Х				Х
Providing bycicles for guests					Х

The technique used for analysis of data research is analysis of content, which works as a series of communication analysis techniques to describe the

messages received from the papers we read (BARDIN, 2011). In the analysis of content, 23 sustainable practices in hotel chains as Marriot, Holiday Inn, Kimpton, NH Hotels and Crowne Hotel in Denmark.

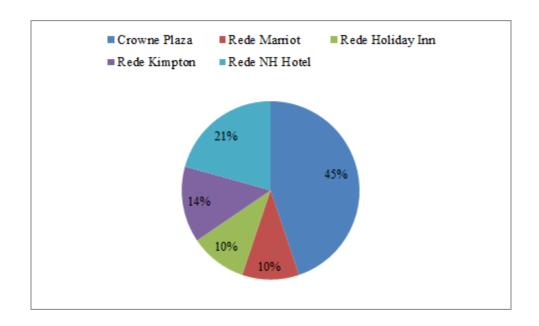
Analyzing data from sustainable hotels described in this paper, it is understood that LEED certification and Green Leaders program in TripAdvisor are highlighted in these hotels. The LEED certification in important for the qualification it gives to the building, for whom it is hard to be rewarded with it, since they need to realize a series of prerequisites to obtain Green Leaders program is linked with TripAdvisor, and also demands a series of requirements (TRIPADVISOR, 2018).

Amongst the five hotel chains studied, the one with the largest number of sustainable practices is Crowne – specially regarding the hotel of this company located in Copenhagen, Denmark, which was studied here. This hotel possesses as well options for reducing energy consumption in solar panels which feed LED lamps. This technology is more efficient and improves the system, providing a better luminous flux, of 65 to 120 lumens/watt. This can reduce energy consumption up to 85% (CARLOS et al., 2017).

LED is a semiconductor which emit light through a technology similar to computers and applied to an electrical source called electroluminescence. There are several certifications for LED lighting, as ISO 9000, an international set of criteria to assure that quality standards are met.

Other important practices are reducing the consumption of carbon, energy and water in Crowne Hotel in Denmark, as well as in some hotels in the NH Hotel chains, using solar panels and LED lamps, energy-efficient taps Pet Friendly practices are common as well in these hotels. Figure 1 shows percentage of sustainable practices in the studied hotel chains.

Figure 1 – Percentage of sustainable practices in hotel chains



Overall, 22 sustainable practices were found in these hotels. Crowne Plaza Hotels are the most efficient ones, with 45% of the analyzed practices. NH Hotels practices 21% of the ideas. Kimpton has successfully implemented 14% of these practices, and Marriot and Holiday Inn have each implemented 10%.

5 Conclusions

It is understood that hotels must go through several steps and rules to achieve a certification of sustainability, that they help environment with technology, design and innovation.

Green Practices were analyzed in Marriot, Starwood, Holyday Inn, Kimpton, NH Hotels and Crowne Hotel in Denmark. These hotel chains have worldwide importance in tourism markets. Most of them have specific programs, as CORK2CORK in NH Hotels for reutilization of cork stoppers or Crowne Hotel in Denmark with their ergometric bicycles which generate energy. Other programs as American Hotel and Lodging Association (AHLA), UK's ITP Hotel Environmental Charter, Green Seal, IHG's Green Engage, Energy Star, Green Key Programs and Green Globe are used in these hotels, and LEED certifications have great value.

These differences in hotels and green practices only create advantages for hotels, improve their visibility and generate special experiences for customers, and incentive guests in using different means and processes that hotels can use to improve environmental care, as cited along this article. Then, it is understood

that sustainability strategies in hotel chains impact in customer decision-making, since they generate unique experiences since research in digital platforms to the experience in lodging, with the deeds offered by hotels to reduce water and energy consumption towards sustainability and caring about the environment, and extending to customer action after their stay, sharing their experiences in digital platforms.

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GREEN MARKETING IN HOTEL CHAINS

ABSTRACT

With the increase of tourism as a form of leisure, the hotel industry became of great importance for environmental issues and began to adopt green practices as a differential. This article aims to analyze how green marketing is being used in hotel chains to attract customers, and how they impact and influence consumers' decision making. The hotel practices can be adapted to the choice of the region, types of clients, mission and vision of the hotel and the impact that it wants to have on the community that is inserted, for example with the appropriate choice of materials, both for the construction of the building and maintenance, reducing energy consumption and other basic resources, training employees and services offered to customers.

KEYWORDS: Green Marketing, Hotel Chains, Sustainability, Consumer Behavior

REFERENCES

AMORES-SALVADÓ, Javier; CASTRO, Gregorio Martín-de; NAVAS-LÓPEZ, José E.. Green corporate image: moderating the connection between environmental product innovation and firm performance. **Journal of Cleaner Production**, [s.l.], v. 83, p.356-365, nov. 2014. Elsevier BV. http://dx.doi.org/10.1016/j.jclepro.2014.07.059.

BALABAN, Osman; OLIVEIRA, Jose A. Puppim de. Sustainable buildings for healthier cities: assessing the co-benefits of green buildings in Japan. **Journal of Cleaner Production**, [s.l.], v. 163, p.68-78, out. 2017. Elsevier BV. http://dx.doi.org/10.1016/j.jclepro.2016.01.086.

BARDIN, L. Análise de Conteúdo. São Paulo: Edições 70 (2011).

BOARIA, Francieli; dos ANJOS, Sara J. G.; RAYE, Roberta L. Implementation of e-marketing in the Brazilian hotel chains. **Tourism and Management Studies**. V. 10, p. 116 – 122, 2014.

BOHDANOWICZ, Paulina. European Hoteliers' Environmental Attitudes. **Cornell Hotel And Restaurant Administration Quarterly**, [s.l.], v. 46, n. 2, p.188-204, maio 2005. SAGE Publications. http://dx.doi.org/10.1177/0010880404273891.

BOTHA, Elricke; ENGELBRECHT, Willy Hannes. Greening as Part of Ecotourism to Contribute to Tourists' Experiences: A Destination Planning Approach. In: **The Handbook of Managing and Marketing Tourism Experiences**. 2017.

BUDEANU, Adriana. Sustainability and Tourism Social Media. In: **Tourism Social Science Series**. 2013.

BUFFA, Federica; FRANCH, Mariangela; RIZIO, Dina. Environmental management practices for sustainable business models in small and medium sized hotel enterprises. **Journal Of Cleaner Production**, [s.l.], v. 194, p.656-664, set. 2018. Elsevier BV. http://dx.doi.org/10.1016/j.jclepro.2018.05.143.

CARLOS, Vargas; JESÚS, Guamán; KATHERINE, Rodríguez; ALBERTO, Ríos. Sustema de Iluminación Fotovoltaico em el Alumbrado Público Gestionado a tráves de uns Plataforma Cloud/GIS. **Revista Politecnica Nacional**. V. 39, p. 1 – 8, 2017.

CHAN, Apple Lok Shun. Evaluating the impact of photovoltaic systems on the thermal performance of buildings and its implication to building energy code. A case study in subtropical Hong Kong. **Energy Policy**, [s.l.], v. 119, p.674-688, ago. 2018. Elsevier BV. http://dx.doi.org/10.1016/j.enpol.2018.04.041.

CHAN, Eric S.w.. Managing green marketing: Hong Kong hotel managers' perspective. **International Journal Of Hospitality Management**, [s.l.], v. 34, p.442-461, set. 2013. Elsevier BV. http://dx.doi.org/10.1016/j.ijhm.2012.12.007.

CHANDANA, Jayawardena; POLLARD, Anthony; CHORT, Valerie; CHOI, Chris; KIBICHO, Wanjohi. Trends and sustainability in the Canadian tourism and hospitality industry. **Worldwide Hospitality and Tourism themes**. 2013.

COLES, Tim; FENCLOVA, Emily; DINAN, Claire. Tourism and corporate social responsibility: A critical review and research agenda. **Tourism Management Perspectives**, [s.l.], v. 6, p.122-141, abr. 2013. Elsevier BV. http://dx.doi.org/10.1016/j.tmp.2013.02.001.

CRACKNELL, Teresa Marie; ABU-HIJLEH, Bassam. Measuring LEED–NC applicability in design for hospitality. **Frontiers Of Architectural Research**, [s.l.], v. 4, n. 4, p.308-317, dez. 2015. Elsevier BV. http://dx.doi.org/10.1016/j.foar.2015.09.002.

DOLEZAL, Franz; SPITZBART-GLASL, Christina. Relevance of Acoustic Performance in Green Building Labels and Social Sustainability Ratings. **Energy Procedia**, [s.l.], v. 78, p.1629-1634, nov. 2015. Elsevier BV. http://dx.doi.org/10.1016/j.egypro.2015.11.241.

ESTADÃO. **Pedaladas produzem energia em hotel em Copenhaghe**. Available at: https://sustentabilidade.estadao.com.br/noticias/geral,pedaladas-produzem-energia-em-hotel-em-copenhaghe,538679>. Accessed on: 15. Set. 2018.

FEIO, António; GUEDES, Manuel Correia. Architecture, tourism and sustainable development for the Douro region. **Renewable Energy**, [s.l.], v. 49, p.72-76, jan. 2013. Elsevier BV. http://dx.doi.org/10.1016/j.renene.2012.01.063.

GREEN GLOBAL. **Green Globe Certification**. Available at: https://greenglobe.com/green-globe-certification/>. Accessed on: 10. Set. 2018.

GONÇALVES, Joana C. S.; BODE, Klaus. Livro: Edifício Ambiental. 2015.

HASAN, Zuhairah; ALI, Noor Azman. The Impact of Green Marketing Strategy on the Firm's Performance in Malaysia. **Procedia - Social And Behavioral Sciences**, [s.l.], v. 172, p.463-470, jan. 2015. Elsevier BV. http://dx.doi.org/10.1016/j.sbspro.2015.01.382.

HSIAO, Teng-yuan et al. Establishing attributes of an environmental management system for green hotel evaluation. **International Journal Of Hospitality Management**, [s.l.], v. 36, p.197-208, jan. 2014. Elsevier BV. http://dx.doi.org/10.1016/j.ijhm.2013.09.005.

KIMPTON. **Environemt**. Available at: https://www.ihg.com/kimptonhotels/content/us/en/about-us/kimpton-cares/environment>. Accessed on: 09. Set. 2018.

KLEINRICHT, Denise; ERGUL, Mehmet; JOHSON, Colin; UYDACI, Mert. Boutique hotels: technology, social media and green practices. **Journal of Hospitality and Tourism Technology**. 2012.

LAW, Alexandra et al. Transitioning to a green economy: the case of tourism in Bali, Indonesia. **Journal Of Cleaner Production**, [s.l.], v. 111, p.295-305, jan. 2016. Elsevier BV. http://dx.doi.org/10.1016/j.jclepro.2014.12.070.

LEE HyeRyeon.; JAI Tun-Min; XU, Li. Guests' perceptions of green hotel practices and management responses on TripAdvisor. **Journal of hospitality and tourism technology**. 2016.

LEE, Wen-hwa; CHENG, Ching-chan. Less is more: A new insight for measuring service quality of green hotels. **International Journal Of Hospitality Management**, [s.l.], v. 68, p.32-40, jan. 2018. Elsevier BV. http://dx.doi.org/10.1016/j.ijhm.2017.09.005.

IGH. Holiday Inn hotel. Available at: Accessedon: 19. Set. 2018.

MEDEIROS, Mirna de Lima et al. Adoção da certificação leed em meios de hospedagem: esverdeando a hotelaria?. **Revista de Administração de Empresas**, [s.l.], v. 52, n. 2, p.179-192, abr. 2012. FapUNIFESP (SciELO). http://dx.doi.org/10.1590/s0034-75902012000200005.

MESAH, Ismael. Stakeholder pressure and hotel environmental performance in Accra, Ghana. **Management of Environmental Quality: An International Journal**. 2014.

MINUDIN, Noraini. Corporate Social Responsibility and Employee Retention of 'Green' Hotels. **Procedia - Social And Behavioral Sciences**, [s.l.], v. 105, p.763-771, dez. 2013. Elsevier BV. http://dx.doi.org/10.1016/j.sbspro.2013.11.079.

MOUSAVI, Soad A.; HOSKARA, Ercan; WOOSNAM, Kyle. Developing a Model for Sustainable Hotels in Northern Cyprus. **Sustainability**, [s.l.], v. 9, n. 11, p.1-23, 16 nov. 2017. MDPI AG. http://dx.doi.org/10.3390/su9112101.

MOUTINHO, Luiz; MCDONAGH, Pierre; PERIS, Salvador M.; BIGNÉ, Enrique. The future development of the hotel sector: an international comparison. **International journal of Contemporary Hospitality Management**. 1995.

NH Hotel Group. Descubra nossa linha de hotéis sustentáveis e ecológicos em todo o mundo. Available at: https://www.nh-hoteles.pt/meio-ambiente/hoteis-ecologicos-sustentaveis>. Accessed at: 26.set.2018.

NILASHI, Mehrbakhsh et al. A knowledge-based expert system for assessing the performance level of green buildings. **Knowledge-based Systems**, [s.l.], v. 86, p.194-209, set. 2015. Elsevier BV. http://dx.doi.org/10.1016/j.knosys.2015.06.009.

OLANIPEKUN, Ayokunle Olubunmi et al. Indicators of owner commitment for successful delivery of green building projects. **Ecological Indicators**, [s.l.], v. 72, p.268-277, jan. 2017. Elsevier BV. http://dx.doi.org/10.1016/j.ecolind.2016.08.017.

CASTLETON, H.f. et al. Green roofs; building energy savings and the potential for retrofit. **Energy And Buildings**, [s.l.], v. 42, n. 10, p.1582-1591, out. 2010. Elsevier BV. http://dx.doi.org/10.1016/j.enbuild.2010.05.004.

PAÇO, Cidália Maria Leal; PÉREZ, Juan Manuel Cepeda. As tecnologias da informação e comunicação na produtividade do setor hoteleiro de Portugal. **Tourism & Management Studies**, [s.l.], v. 11, n. 2, p.39-46, 31 jul. 2015. School of Management, Hospitality and Tourism, University of the Algarve. http://dx.doi.org/10.18089/tms.2015.11205.

PAKZAD, Parisa; OSMOND, Paul. Developing a Sustainability Indicator Set for Measuring Green Infrastructure Performance. **Procedia - Social And Behavioral Sciences**, [s.l.], v. 216, p.68-79, jan. 2016. Elsevier BV. http://dx.doi.org/10.1016/j.sbspro.2015.12.009.

PÉREZ, Andrea; BOSQUE, Ignacio Rodríguez del. Sustainable development and stakeholder relations management: Exploring sustainability reporting in the hospitality industry from a SD-SRM approach. **International Journal Of Hospitality Management**, [s.l.], v. 42, p.174-187, set. 2014. Elsevier BV. http://dx.doi.org/10.1016/j.ijhm.2014.07.003.

PERINI, Katia; ROSASCO, Paolo. Is greening the building envelope economically sustainable? An analysis to evaluate the advantages of economy of scope of vertical greening systems and green roofs. **Urban Forestry & Urban Greening**, [s.l.], v. 20, p.328-337, dez. 2016. Elsevier BV. http://dx.doi.org/10.1016/j.ufug.2016.08.002.

PETER, Jones; HILLIER, David; COMFORT, Daphne. Sustainability in the global hotel industry. **International Journal of Contemporary Hospitality Management**. 2014.

PIERCY, Niall; RICH, Nick. The relationship between lean operations and sustainable operations. **International Journal of Operations & Production Management.** 2018.

RADOJEVIC, Tijana et al. The effects of traveling for business on customer satisfaction with hotel services. **Tourism Management**, [s.l.], v. 67, p.326-341, ago. 2018. Elsevier BV. http://dx.doi.org/10.1016/j.tourman.2018.02.007.

RAHMAN, Imran; PARK, Jeongdoo; GENG-QING, Christina. Consequences of Greenwashing: Consumers reactions to hotel green iniatives. **International Journal of Contemporary Hospitality Management**. 2015.

REID, Sacha; JOHNSTON, Nicole; PATIAR, Anoop. Coastal resorts setting the pace: An evaluation of sustainable hotel practices. **Journal Of Hospitality And Tourism Management**, [s.l.], v. 33, p.11-22, dez. 2017. Elsevier BV. http://dx.doi.org/10.1016/j.jhtm.2017.07.001.

Richardson, Roberto J. Pesquisa Social: Métodos e Técnicas. 3 ed. São Paulo: **Atlas**. 2014.

ROBLEK, Vasja; MILENKOVSKA, Violeta; MILOJICA, Vedran. The impacto of corporate sustainability in achieving business goals in Hotel industry. International Congress **TOURISM AND HOSPITALITY INDUSTRY 2016 TRENDS AND CHALLENGES**. 2014.

SCHOLZ, Petr; VORACEK, Jan. Organizational culture and green management: innovative way ahead in hotel industry. **Measuring Business Excellence**. 2016.

ROSENBAUM, Mark Scott; WONG, Ipkin Anthony. Green marketing programs as strategic initiatives in hospitality. **Journal Of Services Marketing**, [s.l.], v. 29, n. 2, p.81-92, 13 abr. 2015. Emerald. http://dx.doi.org/10.1108/jsm-07-2013-0167.

SELLERS-RUBIO, Ricardo; CASADO-DÍAZ, Ana B.. Analyzing hotel efficiency from a regional perspective: The role of environmental determinants. **International Journal Of Hospitality Management**, [s.l.], v. 75, p.75-85, set. 2018. Elsevier BV. http://dx.doi.org/10.1016/j.ijhm.2018.03.015.

MITHTHAPALA, Srilal; CHANDANA, Jayawardena; DILEEP, Mudadeniya. Responding to trends: Environmentally-friendly sustainable operations (ESO) of Sri Lankan hotels. **Worldwide Hospitality and Tourism Themes**. 2013.

SUKI, Norazah M. Impacts of Corporate Social Responsibility on the Links Between Green Marketing Awareness and Consumer Purchase Intentions. **Procedia Economics and Finance**. V. 37, p. 262 – 268, Elsevier BV. doi: 10.1016/S2212-5671(16)30123-X.

TÖLKES, Christina. Sustainability communication in tourism — A literature review. **Tourism Management Perspectives**, [s.l.], v. 27, p.10-21, jul. 2018. Elsevier BV. http://dx.doi.org/10.1016/j.tmp.2018.04.002.

TZSCHENTKE, Nadia A.; KIRK, David; LYNCH, Paul A.. Going green: Decisional factors in small hospitality operations. **International Journal Of Hospitality Management**, [s.l.], v. 27, n. 1, p.126-133, mar. 2008. Elsevier BV. http://dx.doi.org/10.1016/j.ijhm.2007.07.010.

VERMA, Vivek K.; CHANDRA, Bibhas. Sustainability and customers hotel choice behaivor: a choice-based conjoint analysis approach. **Environment, Development and Sustainability**. V. 20, p. 1347-1363, 2017.

WANG, Na et al. Past visions, current trends, and future context: A review of building energy, carbon, and sustainability. **Renewable And Sustainable Energy Reviews**, [s.l.], v. 82, p.976-993, fev. 2018. Elsevier BV. http://dx.doi.org/10.1016/j.rser.2017.04.114.

WORSFOLD, Kate; FISHER, Ron; MCPHAIL, Ruth; FRANCIS, Mark; THOMAS, Andrew. Satisfaction, value and intention to return in hotels. **International Journal of Contemporary Hospitality Management**. 2016.

- YEH, Shih-Shuo; MA, Tao; HUAN, Tzung-Cheng. Building social entrepreneurship for the hotel industry by promoting environmental education. **International Journal of Contemporary Hospitality Management.** 2016.
- YI, Sungpo; LI, Xu; JAI, Tun-min (catherine). Hotel guests' perception of best green practices: A content analysis of online reviews. **Tourism And Hospitality Research**, [s.l.], v. 18, n. 2, p.191-202, 14 mar. 2016. SAGE Publications. http://dx.doi.org/10.1177/1467358416637251.
- YU, Yixiu; XU, Li; JAI, Tun-Min (Catherine). The impact of green experience on customer satisfaction: evidence from TripAdvisor. **International Journal of Contemporary Hospitality Management.** 2018.