

GUEST PERSPECTIVE ON SUSTAINABLE ACTIONS IN A LODGING FACILITY IN SOUTHERN BRAZIL. CASE STUDY.

PERSPECTIVA DO HÓSPEDE SOBRE AÇÕES SUSTENTÁVEIS EM UM MEIO DE HOSPEDAGEM DO SUL DO BRASIL. UM CASO DE ESTUDO.

Luciara Bilhalva Corrêa^{1, 2}

Bianca Peruchin²

Lucas Lourenço Castiglioni Guidoni²

Ana Luísa Lopes da Cunha Ferrão²

Rodrigo Bilhalva Moncks²

Suzana Maria De Conto³

Érico Kunde Corrêa^{2,4}

Recebido em 09/03/2015

Aprovado em 11/9/2015

¹ Associate Professor in the Department of Sanitary and Environmental Engineering at the Federal University of Pelotas, Brazil. PhD in Environmental Education at the Federal University of Rio Grande, Brazil. E-mail: luciarabc@gmail.com

² Waste and Sustainability Research Group (NEPERS), Federal University of Pelotas, Brazil.

³ Associate Professor in the Department of Chemical Engineering, University of Caxias do Sul, Brazil. PhD in Education from the Federal University of São Carlos, Brazil.

⁴ Associate Professor in the Department of Sanitary and Environmental Engineering at the Federal University of Pelotas, Brazil. PhD in Biotecnologia, Federal University of Pelotas, Brazil. Specialization in Technological Education Inclusive.

ABSTRACT

The aim of this study was to analyze the perspective of guests in a lodging facility related to the environmental aspects of the activity, especially about solid waste, and also to determine how far these aspects influence the decision making regarding the choice of hotel. The case study was conducted in a hotel focused on business tourism, located in Pelotas, southern Brazil. Questionnaires were available for guests at check-in, offering the option to participate in the research. Out of 240 questionnaires handed, 120 returned answered (n=96). Although the majority of guests who answered (99.2%) consider the development of environmental practices in this business relevant, only 43.3% observe this factor and make it determinative to choose a lodging facility. Furthermore, a large portion (14.2%) did not know about sustainability actions practiced by the enterprise in which they were staying. A lack of knowledge about solid waste and its handling by most guests was observed, and this may be related to the absence of publicity both about environmental actions taken by the hotel and the Brazilian environmental legislation applied to the lodging industry.

KEYWORDS

Hotel. Guest. Business Tourism. Environmental Perception. Environmental Management. Sustainability.

RESUMO

O objetivo deste estudo foi analisar a perspectiva dos hóspedes de um meio de hospedagem em relação aos aspectos ambientais do empreendimento, principalmente os resíduos sólidos, e ainda, determinar até que ponto esses aspectos influenciam a tomada de decisão na escolha do meio de

hospedagem. O estudo de caso foi realizado em um meio de hospedagem voltado para o turismo de negócios, localizado em Pelotas, sul do Brasil. Os questionários estavam disponíveis para os hóspedes no check-in, oferecendo a opção de participar da pesquisa. A partir de 240 questionários distribuídos, 120 retornaram respondidas (n=96). Embora a maioria dos clientes que responderam (99,2%) considera o desenvolvimento de práticas ambientais neste negócio relevante, apenas 43,3% observam esse fator como determinante para escolher um meio de hospedagem. Além disso, uma grande parte (14,2%) não sabia sobre ações de sustentabilidade praticadas pela empresa em que estavam hospedados. Observou-se uma falta de conhecimento sobre resíduos sólidos e seu manejo pela maioria das pessoas, e isso pode estar relacionado com a ausência de publicidade tanto sobre as ações ambientais tomadas pelo hotel e da legislação ambiental brasileira aplicada ao setor hoteleiro.

PALAVRAS-CHAVE

Hotel. Hóspede. Turismo de Negócios. Percepção Ambiental. Gestão Ambiental. Sustentabilidade.

1. INTRODUCTION

Tourism in Brazil has been experiencing a gradual growth in recent decades. In 2012, over 5.7 million tourists visited Brazil, a number significantly larger than the one recorded ten years ago, in 2002, when 3.8 million tourists came to the country. Also with respect to the year 2012, in addition to generating an export revenue of 6.6 billion dollars, the hotel industry surpassed 6.200 lodging facilities (Brasil, 2013a), with the prediction that by 2016 there will be at least 422 new ventures in the country (Brasil, 2013b). Thus, according to Cardoso et al. (2013) Brazil is experiencing an unique moment for the hotel industry, and events as the Confederations Cup that took place in 2013 and events like the World Cup and the Olympic Games in Rio de Janeiro, which will occur in 2014 and 2016, respectively, will further boost this industry.

Sustainability is a factor that is becoming an essential requirement for the hospitality industry, both to new ventures as for those who already in operation (Weissenberg et al., 2008). This need comes not only by the urgency of actions that stop the extent of environmental impacts caused by this industry, but also due to the quantity of goods consumed in the provision of services and the ecologically conscious behavior that costumers have developed when searching products that have the concept of sustainability in them. In Brazil, hotel enterprises are gradually adapting to the legislation that deals with environmental management in lodging facilities, adopting sustainable practices, saving resources and reducing impacts on the environment.

Moreover, the development in the economic and social indicators that Brazil had in the last two decades has contributed to the expansion of tourism. The increase in travels, both on land and air, motivated by leisure and business tourism, helped to foster the hospitality industry. At the same time, the increase in commercial and industrial activities along the expansion of multinational companies motivated business travels, expanding this type of tourism (Gonçalves, 2004).

Business and events tourism, by definition, comprises the set of tourist activities arising from meetings of professional, associative, institutional, commercial, promotional, technical, scientific and social interests (Brasil, 2006). Brazil has been standing out in this segment, in the areas of agriculture, telecommunications, biotechnology, environment, finance, feeding, construction materials, among others (Brasil, 2010a).

The business tourism segment is of vital importance to the tourist economy in Brazil, registering in 2012 a growth of 23.3% (Brasil, 2013c). Its relevance is also noted due to the fact that the tourist who travels for business, events or conventions is the one who has the greater expenditure per capita in the country, registering in 2012 a value of U\$ 120.25, greater than the U\$ 73.77 spent by tourists who travel for leisure.

The most meaningful activities and encounters in this segment are technical visits, corporate travels, business meetings, business round tables, conventions, conferences, congresses and workshops (Brasil, 2010a). Since 2011 business, events and conventions tourism are the second main reason for traveling in the country, only behind leisure tourism. It is also noticeable that 85.6% of tourists traveling in Brazil for business, events or conventions purposes stay in hotels (Brasil, 2012).

The increased demand for services in tourist activities generated an expansion of the hotel chain, which in turn has been blamed for the excessive consumption of natural resources in major tourist destinations, requiring an environmental control in order to maintain the sustainability of these sites (Rodríguez-Antón et al., 2012).

The characteristics of the services and functions offered by the lodging facilities consume a variety of renewable and nonrenewable natural resources that, when discarded, end up generating an impact on the environment, by gas emission, effluents or the generation of solid waste (Manaktola and Jauhari, 2007; Scanlon, 2007). There is a need to seek alternatives for the development of activities

in the hotel industry to offer services that at the same time meet consumer demand and respect the carrying capacity of the environment.

In recent years, the tourism market have realized that their performances and strategies need to be modified in order to be able to meet those who seek specific products, namely, consumer demand for environmentally sustainable products and services. To meet this consumer demand, tourism and all related sectors - including lodging facilities - are seeking ways to achieve and conform to standards of sustainability, in order to improve their image and stay in the market, since this branch depends on the quality of the environment and society.

The growth of ecological awareness globally has caused a change in consumer behavior, awakening an upward search for environmentally friendly products (Han et al., 2009; Laroche et al., 2001). This behavior is not restricted to consumer goods, but has also been recorded in the search for lodging facilities that are committed to the environment and practice sustainable actions (Barber, 2012). Berezan et al. (2013) notes that sustainable practices in a lodging facility can act as a deciding factor when the consumer is choosing this service. There is a growing number of hotels adopting sustainable practices, recognizing the importance of implementing these actions as a factor of competition in the market, and also as a way of protecting the environment and natural resources, while also aiming to attract the consuming public of these initiatives (Han et al., 2011; Mensah, 2006; Barber, 2012).

Thus, the importance of researching consumer attitudes is denoted, given that, from an environmental point of view, the behavior of the guest in the hotel occurs in two ways: Sustainable attitudes practiced by the lodging facility may be a relevant factor for the choice of the guest for this particular hotel; and the attitudes from the guests when they are in the facility will reflect on the sustainability of the enterprise.

Therefore, the aim of this study was to analyze the perspective of guests related to the environmental aspects of a lodging facility focused on business tourism, located in southern Brazil, featuring a case study. First the demographic profile of the guests was prepared. Then we sought to determine how much the environmental aspects influence the decision making regarding the choice of hotel, and finally an analysis of the perception of guests on the environmental aspects of the hotel was made, especially related to solid waste.

2. METHODOLOGY

2.1. DATA COLLECTION

The case study allows to define the relevant variables, to understand an object or the whole, and the data collection may be performed through several quantitative and qualitative procedures, including observation, analysis of documents, formal or informal interviews and questionnaires, among others (Ventura, 2007).

To obtain the data, a qualitative research was chosen, through the application of questionnaires during the months of August and September, corresponding to the months of high occupancy of the enterprise, in 2012. The average number of guests during peak season is 44 guests / day (Peruchin et al, 2015), so the estimative is about 2650 guests during the study period. For this population, a 10% error was assumed, which resulted in a significant sample of 96 guests (Arkin and Colton, 1963 apud Ventura et al, 2010). However, according to Marconi and Lakatos (2008) the application of questionnaire in a research may return with just a full quarter available. Estimating a 40% return of questionnaires for this research, 240 questionnaires were delivered.

The questionnaire method was chosen so that the costumers of the lodging facility chose to answer it or not, according to their preference, having no obligation to contribute to the research. The questionnaires were given to guests by the employees of the hotel, at check in.

2.2. STUDY SITE

The researched lodging facility is located in the city of Pelotas, in Southern Brazil. The choice for this study site was due to mainly by the size of the lodging facility, which is one of the largest in the city, with 74 housing units. Its activities and operations are geared towards business tourism, which can be observed in their environment, with the presence of rooms for meetings and conferences.

Since its conception in 2003, the company was designed aiming the sustainability advocated by standards and legislation. Therefore, the lodging facility performs several actions for environmental responsibility and preservation of the environment, such as heating water through solar energy; capture rainwater, which passes through a cistern and is used to clean the hotel, besides being filtered for use in the laundry; use of refill of toiletries in some housing units; the fire system was designed to use the pool water; natural lighting in corridors, rooms and in the hotel gym; the use of enlightenment through sensors, which is activated only with a key card from the apartment; besides the reutilization of materials in the construction of the place.

From this information, we attempted to analyze the knowledge and perception of guests about sustainable actions undertaken by the lodging facility, their assessment about the quality of these actions and interference and their relevance when choosing the hotel.

2.3. QUESTIONNAIRE

The questionnaire was designed with closed-ended questions, with one question that could be answered with more than one option. According to Ribeiro (2008), the main advantages of this research method through questionnaire are the anonymity of the respondent; the objective questions are easy to score and consequently to analyze; the standardization of the questions ensures uniformity of data; there is more time for the respondent to think in their answer; and the ease of conversion of data to the computer, and the reasonable cost of implementation.

This way, the questionnaire was prepared and divided in three blocks: the first block approached the relevant information about the guest, such as the reason to choose the hotel, the guest age and home state, and how often he visits in this lodging facility. The second block examined the sustainability of the lodging facility, the guest evaluation about the practiced actions and the decision criteria for choosing this hotel. The third and last block was about the guest opinion regarding waste segregation in and outside of the lodging facility, the general knowledge about solid waste, including the legal aspect, seeking thus highlighting the importance of solid waste to the hotel. The data were organized, systematized and analyzed as presented below

3. RESULTS

In order to facilitate the understanding of the data, it was opted to classify them in three distinct and interrelated categories: (A) demographic profile; (B) environmental awareness and (C) solid waste. It is relevant to inform that, from the 240 questionnaires distributed, only 120 returned answered; this shows the lack of interest of most of the target public in support researches that contribute to a common interest. Nevertheless the number of questionnaires were returned larger than necessary for the assumed error ($n = 96$).

3.1. DEMOGRAPHIC PROFILE

Regarding the demographic profile of the guests, as shown in Table 1, it is emphasized that 66% have "business " as purpose of travel. This proves to be consistent with the main feature of the lodging facility of this study, which is business tourism. Moreover, it was observed that 12% travel to know the leisure, culture and commercial tourism of the region, through potential tourism that appreciate the historical participation of the city in the development of the country. The remainder (22%) is traveling for purpose related to visiting family and university graduations, which may be related to the fact that the city has three universities and two Federal Institutes.

Another factor that highlights the hotel characteristic of being focused on business tourism is the age group and even the home state of the guest. It is possible to observe that most guests (46.7%) are in the age group of 31-50 years old, and they are the largest group of the Brazilian Economically Active Population (PEA, População Economicamente Ativa) (IBGE, 2011). The age groups of 51-60 years old and 21-30 years old had the second and third largest representation, with 16.7% and 10.8%, respectively. Together, the age groups of 11-20, 61-70 and 71-80 years old accounted for 10.8%, and 15% of the respondents did not report their age. Therefore, it is possible that some of these customers have high consumption patterns, with affluence and excesses, which consequently may result in high water and energy usage, and an exacerbated volume of municipal solid waste. Thus, this increases the responsibility of the enterprise to manage the environmental aspects in order to reduce financial costs and also reduce the damage caused to the environment to meet the demands of the enterprise.

Regarding the home state of the guest, the vast majority (59.2%) is from the same state which the hotel is, in Rio Grande do Sul. It is emphasized that the city of Pelotas, where this study was conducted, is located 57 km away from the city of Rio Grande, where a major Brazilian naval hub is located, which has received the investment of R\$ 14 billion (approximately U\$ 6.350.000.000), with the creation of more than 50 thousand direct and indirect jobs, due to construction of oil platforms and ship hulls (Ogliari, 2010). This boosts business in the southern state. Besides that, it is emphasized that 15% of the guests came from a state known worldwide by its economic potential, the state of São Paulo. The importance of this state for the business tourism sector stands out for being the largest recipient of tourists for this purpose (Brasil, 2012).

Table 1 - Demographic profile of guests

Guests characteristics	Frequency (%)
Porpouse of travel	
Business	66
Visits and Family	22
Leisure, culture or commerce tourism	12
Age group	
11-20	2,5
21-30	10,8
31-40	26,7
41-50	20
51-60	16,7
61-70	5,8
71-80	2,5
Unanswered	15
Home state	
Rio Grande do Sul	59,2
São Paulo	14,2
Paraná	8,3
Minas Gerais	4,2
Goiás	3,3
Santa Catarina	3,3
Rio de Janeiro	2,5
Distrito Federal	1,7
Unanswered	3,3

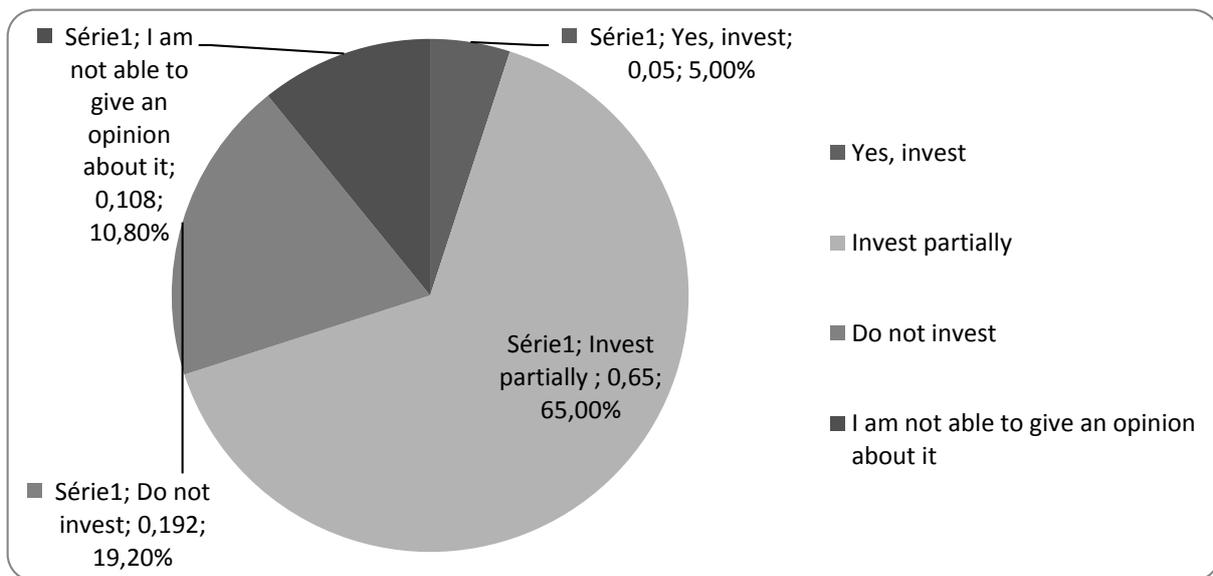
3.2. ENVIRONMENTAL PERCEPTION

Table 2 e Figure 1 shows topics covered and the answers from the guests about the second block of questionnaire made. Related to environmental perception, 99.2% of the guests considered important the work of the hotel chains, in a broad sense, with environmental policies. However, as Figure 1 shows the majority of respondents (65%) noted that the Brazilian lodging facilities invest only partially in environmental practices - such as waste segregation, reuse of materials, routing of recyclable waste for cooperatives, natural lighting, and heating water with solar energy, among other actions to preserve and conserve the environment. In this issue we study is included in this percentage with initiatives for saving water through the laundry water reuse, and also increasing the natural lighting during the day, which results in saving electricity.

Table 2 - Issues raised from the second block of questionnaire and answers from the guests.

Topics covered	Total sample (n=120)			
	Yes (%)	No (%)	n	Frequency of respondents (%)
Is it important to hotel chains to work with environmental policies in their areas?	99,2	0,8	120	100
Concerns about the environment when choosing a place to stay	43,3	56,7	120	100
Collaboration on actions of environmental responsibility from the lodging facility	86,7	13,3	120	100
Knowledge about the lodging facility having actions of environmental responsibility	14,2	63,3	93	77,5

Figure 1. Percentage concerning the opinion of guests in the lodging facility studied about the investments made by the Brazilian hotel chain in environmental practices.



Although most guests consider the work of lodging facilities regarding environmental politics important, 43.3% of them observe this factor and make it decisive to choose a lodging facility, which under the circumstances, it may be considered for this study we investigated. De Conto et al. (2013), in a study with guests of the Grape and Wine Region in the Serra Gaucha, Rio Grande do Sul, that analyzed environmental education at lodging facilities as a criteria for choosing the place, found that

only 19% of the guests considered this requirement as basis for their decision, while 35.4% had never thought about it, presenting lower compared to hospedes of this study, which can be attributed to the guests profile of each study. Moreover, De Conto and Posser (2005), when questioning guests from a hotel at Região das Hortências, also in the Serra Gaucha, if the program of environmental management in a lodging facility interfered in the choice for the same, 45.10% responded that they had never thought about it.

It is noticed that this kind of study, involving the prospect of guests in lodging facilities, may provide subsidies for managers of these enterprises in taking decision regarding the efforts and resources allocated to environmental policy and sustainable actions of the hotel. Accordingly, it is inferred that environmental practices is a parameter used by a portion of customers when choosing a hotel, but still has great potential for expansion, since sustainable practices are increasingly necessary to achieve the desired environmental sustainability. About the actions of environmental responsibility in the hotels where they stay, 86.7% of the guests said to contribute with these actions, which include waste separation when bins are available, minimization of the generation of waste, reuse of towels, etc. - while 13.3% don't have the same interest. However, if the hotel does not encourage this behavior, or does not inform guests about any actions done, 5.8% said they seek out if there are actions related to environmental sustainability.

Within the total guests respondents, 8.3% suggest to the manager of the hotel actions that could be implemented aiming environmental preservation, 69.2% reuse the same towel during the whole time they are staying, 31.7% segregate the waste produced in their room, and 89.2% save energy turning off the lights when leaving, or do not leave unused electronic into the power outlet (Table 3). These practices are related to environmental management efficiency expected of a hotel truly committed to establishing these principles (ISO 14001). Considering the responsibility of lodging facility, this goal will only be achieved with the participation of guests, making them also responsible to save and preserve natural resources.

Table 3 - Guests attitude when the lodging facility does not practice environmentally friendly actions or does not inform them about the existence of these actions.

Guest information	Frequency of respondentes (%)
Get to know if there are practices favorable to the environment	5.8
Suggest to the managers of the hotel actions that could be adopted for environmental preservation	8.3
Reuse the same towel during the whole stay	69.2
Segregate wastes produced within their room	31.7
Save energy (turn off the lights when leaving, do not leave unused electronics into the power outlet)	89.2
Others	1.7
Unanswered	2.5

Moreover, 26.7% of the guests said they contribute with one of these actions, 35.8% said to contribute with two actions, 32.5% help with 3 actions and 5% contribute with more than 3 actions. About the frequency of hosting on the place researched, 53.3% of the guests had already been in the hotel, while 46.7% had never stayed there. Regarding frequency of hosting in the place, 20.3% said they were staying for the first time, 48.4% had been there 2-7 times, 14.1% had stayed there 8-20 times and 17.2% said they stay there monthly or annually.

The low percentages of collaboration with the environmental practices of the hotel, both from guests that have already been there and those who have come for the first time, may be associated with the lack of educational information about the stages of environmental management involving their participation. In this case, such information could be provided by the hotel itself; considering that the recurrence of guests is high, these can be instructed to increasingly adapt to sustainable practices.

Thus, when the guest is informed about environmental practices of the hotel, it becomes explicit the position of the company related to the environment sustainability, which might be well seen by the

guests who consider environmental issues as a criteria to return to the lodging facility. Han and Kim (2010) argue that service quality, satisfaction and the global image of the lodging facility has a positive and significant association with the return intention of the guest.

When asked if they knew that the lodging facility developed actions of environmental responsibility, only 14.2% claimed to know the fact, while 63.3% did not have this knowledge and 22.5% did not answer the question. This is opposed to the information that 43.3% of the guests considered this as an important factor when choosing the hotel, since most of them did not know about the practices related to preservation and conservation of the environment.

It was possible to observe also that most of the guests were not staying at the hotel for the first time, and most of them did not know about the actions to reduce the environmental impact that the lodging facility practices. The 14.2% of guests that claimed to know the environmental actions said that they see the commitment of the hotel regarding actions of environmental responsibility as "great" (17.6%), "good" (58.5%) and "regular" (23.6%), as Table 4 shows. No guest considered these actions as "bad".

A survey in India, addressing the consumer behavior concerning environmentally sustainable practices revealed that only 22% of the consumers seek information about the right environmental practices in hotels, and use this information to choose where to stay (Manaktola and Jauhari, 2007). Moreover, only 15% of Indian consumers are willing to pay for environmentally friendly initiatives, while 52% argue that the lodging facility should be responsible for such costs (Manaktola and Jauhari, 2007). Kang et al. (2012) in a study about the North American Hotel Industry, observed that 30% of the consumers claim they would pay more to stay in a hotel that cares about being environmentally sustainable. In the same study, among those who would pay more for environmentally responsible practices, 37% of the American consumers would spend 1-5% more for sustainable practices in the hotel, while 24% would pay 6-10% more, and only 5.5% would pay more than 10% (Kang et al., 2012). Comparing research in India, the US and the present study, it can be asserted that almost a quarter of the guests take into account environmental practices in the lodging facility chosen.

On the other hand, Bohdanowicz (2005) claims that the share of costumers that include sustainability criteria in their decision-making process is still small, and does not have enough power to influence the hotel sector. However, the data presented in this study show opposition to this author, considering that environmental issues has been making progress in recent years, giving strength and importance

to this criteria. Indeed, it is understood that the importance of environmental practices is an ongoing process, and the need for these adjustments to the hospitality industry may mean an opportunity for tourism market, since if properly harnessed, with efficient environmental measures and appropriate disclosure (Hi, 2012).

3.3. SOLID WASTE

Addressing the issue of solid waste, Bohdanowicz (2005) comments that this generation is one of the most visible impacts in the environment from hotels, due to the amount of goods consumed by these developments. To Radwan et al. (2010), solid waste is a major concern for the hotel sector.

Concerning the solid waste in the hotel that was studied, Table 4 shows that the guests evaluated the segregation of waste in the hotel as "great" (11.6%), "good" (31.7%) and "regular" (4.2%), and more than the half of guests did not answer (52.2%). Considering that the majority of guests did not answer this question, it is possible to note the lack of awareness of a large amount of guests regarding the observation of practices that are performed by the hotels in relation to solid waste management. Among the guests answering the question (47.5%), no one of the guests answered to consider the segregation held by the venture as "bad". Radwan et al. (2010) states that there are practices that can drive the guests to collaborate with the segregation of recyclable materials, such as the provision of more bins in the rooms or near locations where recyclables are generated (e.g. plastic cups generated near coffee or water machines).

As Table 5, when asked if they segregate wastes in their homes, 71.6% said they segregate, 4.2% do not segregate and 24.2% did not answer. In this question, the high amount of non-respondents may be related to the previous question, since the majority of people who did not answer probably add up to those that do not segregate, and consequently, have difficulties in assessing the quality of the segregation system used by the lodging facility.

Another relation can be made with the following question, if the guest usually segregate waste at his workplace: 60% said they segregate, 14.2% do not segregate and 25.8% did not answer. In this context, in front of only 31.7% who said (Table 3) carry out the separation of waste in the hotel bedroom, it can be inferred that in environments outside the lodging facility the respondents are more frequent with waste segregation than within the means of accommodation.

Table 4 - Evaluation of guests regarding actions of environmental responsibility and segregation of waste by the lodging facility.

Question	Opinion of the respondents					N	Frequency of respondents (%)
	Great (%)	Good (%)	Regular (%)	Bad (%)			
Hotel commitment regarding actions of environmental responsibility	17,6	58,8	23,6	0		17	14,2
Evaluation of the solid waste segregation carried by the lodging facility	11,6	31,7	4,2	0		57	47,5

Table 5 - Issues raised from the third block of questionnaire and answers from the guests

Topics covered	Total sample (n=120)			
	Yes (%)	No (%)	n	Frequency of respondents (%)
Segregation of waste within the residence	71,6	4,2	91	75,83
Segregation of waste in the workplace	60	14,2	89	74,17
Existence of selective collection in the hometown of the guest	69,2	6,6	91	75,83
Need for separation of organic waste and recyclable	100	0	120	100
Knowledge about solid waste management	43,4	28,3	86	71,67
Knowledge about the National Policy on Solid Waste	20,8	53,3	89	74,17

Moreover, 69.2% of the guests said their city of origin has a selective collection of waste, while 6.6% answered that their city does not have this service, and 24.2% did not answer. Despite the high percentage of answers about not having segregation of waste in their homes and in the workplace, and the absence of this process in their city of origin, 100% of the guests said they think it is important

to segregate organic and recyclable waste. This information could be harnessed in the environmental management of the hotel, as they represent traces of environmental awareness and can encourage improvement in waste management at the hotel. Still on Table 5, relating to their understanding of solid waste, 43.4% of the guests reported they have some knowledge about the subject, 28.3% had no discernment and 28.3% did not answer. This data may be directly related to the previous statistic, justifying the lack of waste segregation in their homes and in the workplace due to lack of knowledge about solid waste and, consequently, its segregation. Regarding those who had some knowledge about solid waste, the source of information that guests claim to have had access is presented in Figure 2. The social medias to report on solid waste are an important tool for guests in the education process in relation to this environmental aspect, and can also be exploited to improve the steps that involve the awareness of guests on a particular subject addressed in the management of the enterprise.

Regarding the legislation for solid waste in Brazil (Table 5), 20.8% of the guests said they were aware of the National Policy on Solid Waste - Act Number 12.305 (Brasil, 2010b), while 53.3% did not know about it, and 25.9% did not answer. The date shown on Figura 2, may be related to the lack of publicity of policies related to the environment by the government or to the lack of interest of the population to seek a greater understanding about the laws that govern not only the management of solid waste, but also the environmental policy globally.

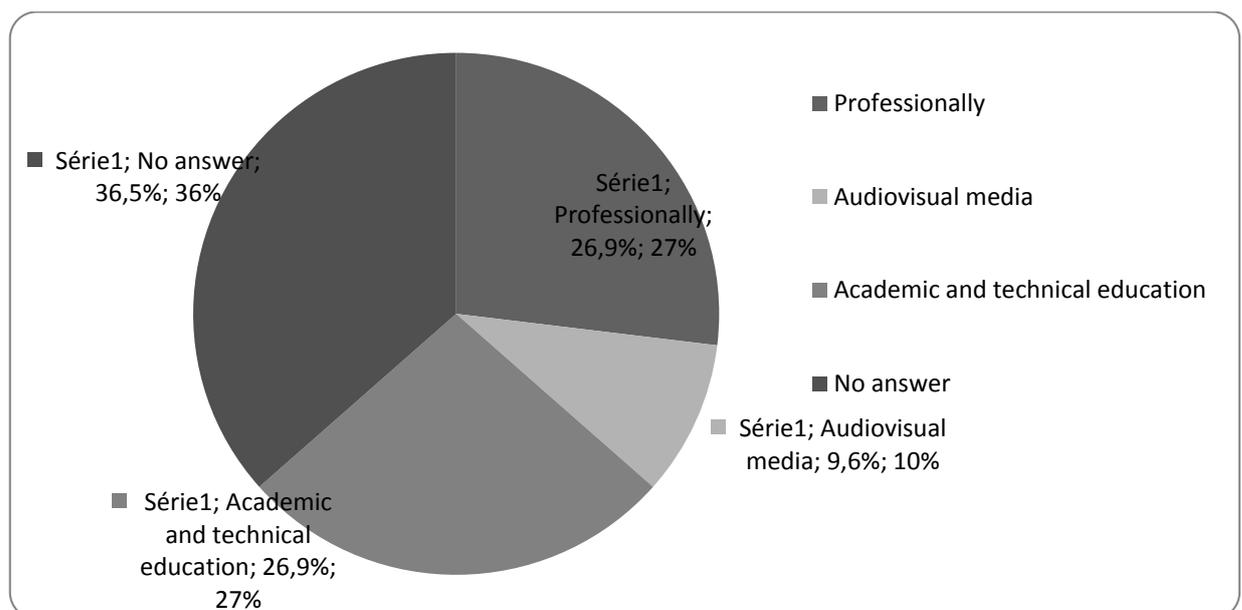


Figure 2. Percentage of answers concerning how guests learned about the subject solid waste.

4. CONCLUSION

In spite of the business tourism is the main purpose of staying at the hotel, it is was found evidence that the information obtained in this study can also be compatible with other groups of guests that participated, requiring further studies to determine a precise relationship between the type of guests and their environmental practices.

However, despite the lodging facility having guests with a high-profile of economic consumption, it was noted actions of reduction of environmental impact and saving of natural resources. Guests, despite considering as important the fact that this hotel chain has environmental policies, and saying that this was one of the reasons why they chose the hotel, did not know about the sustainable actions of the lodging facility where they were staying.

Most guests said they contribute with environmental actions recommended by the hotel in different ways, even with the lodging facility not informing its guests about the actions taken. This can be viewed as a trace of environmental perception in guests with potential for expansion of practices in environmental management of the hotel involving the participation of these guests, with measures to save water, energy and of solid waste management.

The questions that address the issue of waste did not meet expectations due to the large withdrawal of responses, justified by the lack of knowledge of the guests on this subject. Still, the separation of organic and recyclable waste excelled as a necessary practice for all guests. Furthermore, the information provided by the guest serve as an initial diagnosis of solid waste through the hosting evaluated, indicating possible demands for improving the impact caused by such environmental aspect.

Therefore, we recommend to the lodging facility to improve the publicity for guests about its environmental sustainability police through communication channels, in order to inform and notify guests and to qualify its employees about these policies, aiming the participation of everyone in the building of sustainability in this sector.

REFERENCES

- Barber, N.A. (2012). Profiling the potential “green” Hotel guest: who are they and What do they want? *Journal of Hospitality & Tourism Research*. Retrieved from <http://jht.sagepub.com/content/early/2012/06/28/1096348012451462> on January 28, 2014.
- Berezan, O., Raab, C., Yoo, M., Love, C. (2013). Sustainable hotel practices and nationality: The impact on guest satisfaction and guest intention to return. *International Journal of Hospitality Management* 34, 227-233.
- Brasil, Ministério do Turismo (2006). *Segmentação do Turismo: Marcos Conceituais*. Brasília: Ministério do Turismo.
- Brasil (2010a). Ministério do Turismo, Secretaria Nacional de Políticas de Turismo, Departamento de Estruturação, Articulação e Ordenamento Turístico, Coordenação-Geral de Segmentação. *Turismo de Negócios e Eventos: orientações básicas.2.ed* – Brasília: Ministério do Turismo.
- Brasil (2010b). Ministério do Meio Ambiente. Secretaria Recursos Hídricos e Ambiente Urbano. Lei Nº 12.305, de 02 de Agosto de 2010. *Política Nacional de Resíduos Sólidos*. Brasília.
- Brasil (2012). Ministério do Turismo. *Estudo da Demanda Turística Internacional – resultados do turismo receptivo, 2012*. Retrieved from http://www.copa2014.gov.br/sites/default/files/08282013_estudo_demanda_turistica.pdf on December 10, 2013.
- Brasil (2013a). Ministério do Turismo. *Estatísticas básicas de turismo, Brasil – Ano 2012*. Publicado em junho de 2013. Retrieved from <http://www.dadosefatos.turismo.gov.br/dadosefatos/home.html> on November 25, 2013.
- Brasil (2013b). Ministério do Turismo. *Brasil terá 422 novos hotéis até 2016*. Retrieved from http://www.turismo.gov.br/turismo/noticias/todas_noticias/20131120.html on November 25, 2013.
- Brasil (2013c). Portal Brasil: *Turismo de negócios movimenta setor no País*. Retrieved from <http://www.brasil.gov.br/turismo/2013/11/turismo-de-negocios-movimenta-setor-no-pais> on November 25, 2013.
- Bohdanowicz, P. (2005). European Hoteliers’ Environmental Attitudes. *Cornell Hotel and Restaurant Administration Quarterly*, 46,188-204.
- Cardoso, M.V., Fleury, F., Malaia, J.M. (2013). World cup legacy and pertaining impacts on São Paulo city’s future. *Future Studies Research Journal*, 5, 168-201.
- De Conto, S.M.; Posser, L. (2005). Informações de hóspedes de um meio de hospedagem em relação a escolha do destino turístico determinada pela variável ambiental. *Turismo Visão e Ação*, 7, 493-503.

De Conto, S.M. et al. (2013). Educación ambiental em medios de hospedaje. *Estudios y Perspectivas em Turismo*, 22, 473-491.

Gonçalves, L.C. (2004). *Gestão Ambiental em Meios de Hospedagem*. São Paulo: Aleph (série turismo).

Han, H., Hsu, L.T., Lee, J.S. (2009). Empirical investigation of the roles of attitudes toward green behaviors, overall image, gender, and age in hotel customers' eco-friendly decision-making process. *International Journal of Hospitality Management*, 28, 519–528.

Han, H., Kim, Y. (2010). An investigation of green hotel customers' decision formation: Developing an extended model of the theory of planned behavior. *International Journal of Hospitality Management*, 29, 659–668.

Han, H., Hsu, L.T., Lee, J.S., Sheu, C. (2011). Are lodging customers ready to go green? An examination of attitudes, demographics, and eco-friendly intentions. *International Journal of Hospitality Management* 30, 345–355.

HI, H. S. (2012). The Effectiveness of Environmental Advertising in the Hotel Industry *Cornell Hospitality Quarterly*, 53 154-164.

IBGE – Instituto Brasileiro de Geografia e Estatística (2011). *Pesquisa Nacional por Amostra de Domicílios*. Ministério do Planejamento, Orçamento e Gestão. Rio de Janeiro, v. 31, p.1-135.

Kang, K.G., Stein, L., Heo, C.Y., Lee, S. (2012). Consumers' willingness to pay for green initiatives oh the hotel industry. *International Journal of Hospitality Management*, 31, 564-572.

Laroche, M., Bergeron, J., Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18, 503-520.

Marconi, M. A; Lakatos, E. M. *Técnicas de pesquisa: planejamento e execução de pesquisas, amostragens e técnicas de pesquisa, elaboração, análise e interpretação de dados*. 7.ed. São Paulo: Atlas, 2008.

Manaktola,K., Jauhari, V. (2007). Exploring consumer attitude and behavior towards green practices in the lodging industry in India. *International Journal of Contemporary Hospitality Management*, 19, 364-377.

Mensah, I. (2006). Environmental management practices among hotels in the greater Accra region. *Hospitality Management*, 25, 414–431.

NBR ISO 14.001. (2004). *Sistemas da gestão ambiental – Requisitos com orientações para uso*. Brasília: Associação Brasileira de Normas Técnicas. Brasília.

Ogliari, E. (2010). Investimento no polo naval soma R\$ 14 bi. *Jornal O Estado de São Paulo*. Retrieved from <http://www.estadao.com.br/noticias/impresso,investimento-no-polo-naval-soma-r-14-bi,557301,0.htm> on December 10, 2013.

Peruchin, B ; Ferrão, A. L. L. C ; Guidoni, L. L. C; Corrêa, É. K; Corrêa, L. B. (2015). Estudo da geração dos resíduos sólidos em hotel. *Turismo: Visão e Ação*, v. 17, p. 301-322.

Radwan, H.R.I, Jones, E., Minoli, D. (2010). Managing solid waste in small hotels. *Journal of Sustainable Tourism*, 18, 175-190.

Ribeiro, E.A. (2008). A perspectiva da entrevista na investigação qualitativa. *Evidência*, 4, 129-148.

Rodríguez-Antón, J.M., Alonso-Almeida, M.M., Celemín, M.S., Rubio, L. (2012). Use of different sustainability management systems in the hospitality industry. The case of Spanish hotels. *Journal of Cleaner Production*, 22, 76-84.

Scanlon, N.L. (2007). An analysis and assessment of environmental operation practices in hotel and resort properties. *Hospitality Management*, 26, 711-723.

Avaliação do gerenciamento de resíduos de serviços de saúde por meio de indicadores de desempenho. *Eng. Sanit. Ambient.*, v. 15, n. 2, p. 167-176, 2010.

Ventura, M.M. (2007). O Estudo de Caso como Modalidade de Pesquisa. *Rev SOCERJ*, 20, 383-386.

Weissenberg, A., Redington, N., Kutyla, D. (2008). The staying power of sustainability: balancing opportunity and risk in the hospitality industry. Retrieved from [http://www.deloitte.com/assets/dcom-unitedstates/local%20assets/documents/us_cb_sustainability_190608\(1\).pdf](http://www.deloitte.com/assets/dcom-unitedstates/local%20assets/documents/us_cb_sustainability_190608(1).pdf) on January 28, 2014.