

UNIVERSITY OF LJUBLJANA
SCHOOL OF ECONOMICS AND BUSINESS

MASTER'S THESIS

**ANALYSIS OF PRO-ENVIRONMENTAL APPEALS IMPACT ON
TOURISTS' BEHAVIOUR**

Ljubljana, November 2020

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AUTHORSHIP STATEMENT

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INTRODUCTION

A significant cause of economic development and growth of any destination is tourism (UNWTO, 2020a). On the one hand, tourism is an essential catalyst of economic growth, but on the other hand, tourism is referenced as one of the most polluting industries (Dolnicar, Knezevic Cvelbar & Grün, 2019). The growth of tourism has contributed to a more excellent occupancy of hotels and increased energy consumption, pollution, and waste, thereby causing tourism to have an adverse environmental impact (Font & Buckley, 2001). Therefore, this sector is facing increased pressure to operate in a more eco-friendly environment. The basis for this pressure is the negative impact on the environment that tourism causes and growing environmental awareness in customers who demand more eco-friendly products and services (García de Leaniz, Crespo & Gómez-López, 2018). Nowadays, tourism has been hit by the Covid-19 pandemic and shows specific changes (UNWTO, 2020b). Likewise, the crisis has also led to changes in tourists' habits and behaviour. The situations with crises led to increased hygiene concerns. It can be assumed that resource consumption will be even higher in the future. That is why many hotels indulge and should be even more involved in various programs to improve guests' environmental communication and engage them in sustainable participation and activities.

The lodging industry is introducing environmental management through different green practices, intending to minimize the impact on the environment, savings in consumption (water and energy consumption), and generate environmentally friendly behaviour of their guests (Penny, 2007). More and more hotels are implementing a plan to reduce water and energy consumption by placing printed pro-environmental appeals in the guest rooms to influence tourists' pro-environmental behaviour. As reported by literature, problems with the introduction of different environmental programs, and therefore pro-environmental appeals, occur when this effort is not sufficiently achieved due to the fact that guests are using more towels and water when staying in a hotel rather than at home (Han, Lee & Kim, 2018). Researchers (Han, Lee & Kim, 2018; Lee' & Oh', 2014) agree that reusing a towel is the main eco-friendly activity in which guests can participate to save water and energy. Based on this, hotels need to improve environmental management and impact their guest' behaviour to reuse towels, reduce water consumption, and save energy.

Many studies have concluded that pro-environmental appeals impact a guest's intention to behave sustainably while traveling (Han, Lee & Kim, 2018). Dissimilar to this, more recent research (Dolnicar, Knezevic Cvelbar & Grün, 2016) has shown how pro-environmental appeals do not impact guests' intention for towels reuse and decrease of electricity in the room. This finding, researchers explain, is a consequence of the context of tourism, which is hedonic, and the fact that tourism is generally perceived as more pleasure and freedom than an obligation to behave responsibly and environmentally friendly during vacation time.

The purpose of the thesis is to analyse pro-environmental appeals impact on tourists' behaviour regarding their involvement in various environmental activities. The purpose is important for contributing to a better comprehension of whether these visual appeals convey the necessary messages and consequently reduce the undesirable effect caused by tourists' stay in a hotel. In the future, the thesis purpose might help address the pro-environmental appeals problem and find a solution in improving their purpose by examining why specific pro-environmental appeals do not achieve suitable results. The research has been conducted with the help of an online questionnaire and includes testing four hypotheses. The results are analysed using statistical *t*-tests, which will be explained in detail in the methodology part. The hypotheses of this research are:

H1: Pro-environmental appeals, placed in hotel rooms, do not have an impact on tourists' behaviour to reuse towels.

H2: Pro-environmental appeals, placed in hotel rooms, do not have an impact on tourists' behaviour to use less water while washing and brushing teeth.

H3: Pro-environmental appeals, placed in hotel rooms, do not have an impact on tourists' behaviour to turn off the lights.

H4: Tourists do not pay attention to the pro-environmental appeals placed in their rooms.

This study's outline is divided into five chapters: Chapter one gives an overview of the relevant literature and theories about environmental sustainability in tourism and provides the definition of environmental management. Chapter two presents a description of the literature on pro-environmental behaviour in tourism. Additionally, this chapter gives an overview of environmental appeals in general and in a hotel located in Slovenia. The theories related to pro-environmental appeals' impact on tourists' behaviour and their attentions to these appeals are also discussed. The methodology part describes the chosen methods for primary and secondary data collection. Furthermore, it explains the questionnaire's design, the description of testing hypotheses, and then used statistical tests. The fourth chapter is based on data analysis and contains the description of respondents. Additionally, this chapter includes a description of all tests used to confirm or reject hypotheses. The fifth chapter summarizes all the findings obtained during the analysis of the results, displays the main contributions made by this work, limitations that the work faced, and recommendations for future work.

1 LITERATURE REVIEW

1.1 Description of the importance of sustainability in the hotel industry

In recent years, tourism has recorded significant growth and development, which brings it to the world's leading industries. Considerable development of tourism has led to pressure on the environment and creating a relationship between tourism and the environment

(Beljanski, 2018). As has been demonstrated by scientific literature, the development of tourism in any destination invariably leads to the economic growth of that destination, increase in income and employment opportunities, infrastructure growth but otherwise, tourism encounters a weak effect on the environment of one destination (Joshi & Dhyani, 2009). So, there is an intercalary relation between tourism and the environment. Therefore, tourism is faced with the task of establishing sustainable and responsible development to preserve all significant values in the environment, which is not sometimes easy to implement and requires great environmental efforts (Beljanski, 2018; Gonzales & Leon, 2001).

The growing concern of sustainability has increased and influenced consumer behaviour and the way companies run business. Hotels represent a large part of tourism and have a highly negative influence on ecology. The negative effect of the hotels is much more significant than similar buildings. That phenomenon is due to the greater use of hotels' resources in recent years (Legrand, Sloan & Chen, 2016). The rapid development of tourism, and thus of hotels, has increased the need to raise the awareness of the negative impact it produces. Consequently, the tourism sector needs to improve the environmental dimension of sustainability (Bagur-Femenias, Celma & Patau, 2016). More and more hotels are turning to 'green' business. According to Han, Hsu & Sheu (2010), hotels that deal with environmental protection and work on various eco-friendly programs to establish that protection can be called green hotels.

As mentioned above, the hotel industry is a large tourism sector and can be of great importance for changing the environmental destruction habits needed to achieve sustainable tourism development (Fukey & Issac, 2014). The hotel sector can provide significant positive contributions to the environment through their effort to use energy as little as possible, to reduce resource consumption and adverse environmental outcomes, and give information about their endeavours (Fukey & Issac, 2014; Al-Swidi & Mohammed, 2020). According to specific authors, sustainability is a trend that portrays hotels positively when it comes to preserving the environment, i.e., less use of resources (Han & Hyun, 2018). The hotel industry has increasingly adopted measures to achieve sustainability in tourism during the past decade.

One of the essential tenets of environmental management is the development that needs to be sustainable (Kirk, 1995). In 1987 starts the beginning of the interest in the concept of sustainable development. The World Commission on Environment and Development (WCED) deepened the interests for sustainable development and published the ecological report "*Our Common Future*" (Carcano, 2013, p.37). Attention was focused on developing sustainability so that the current generation can meet the needs but not deprive a future generation of that intention (Carcano, 2013). Sustainable tourism has many definitions. The most used description of such desirable tourism is presented in the guide by the World Tourism Organization. It is said that sustainable tourism is: "Tourism that takes full account of its current and future economic, social and environmental impacts, addressing

the needs of visitors, the industry, the environment, and host communities” (UNEP and UNWTO, 2005, p. 12). Their definition of sustainable tourism is composed of three pillars: economic, socio-cultural, and environmental sustainability. To achieve long-term sustainability, the balance between these pillars must be established (UNEP and UNWTO, 2005). Sustainable tourism should, UNWTO (2004):

- Make optimal use of environmental resources that constitute a key element in tourism development, maintain essential ecological processes, and conserve natural heritage and biodiversity.
- Respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance.
- Ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.

All relevant stakeholders should participate in the ongoing process of sustainable development of tourism. This process must be monitored and continuously upgraded whenever the opportunity arises (UNWTO, 2004). Tourist satisfaction must be included in the sustainable process and raising their awareness regarding sustainability issues.

In recent years, tourism researchers have increasingly attached importance to the proper maintenance of tourism. All participants in tourism have become aware of how important it is to use nature’s resources appropriately. They also emphasize the negative impact that tourism has when environmental measures are not taken (Pulido-Fernández, Cárdenas-García & Espinosa-Pulido, 2019).

To make more operational three pillars of sustainability (economic, socio-cultural, and environmental), Mihalič, Žabkar & Knežević Cvelbar (2012) suggest their extension into the 3+3 sustainability model. Additional pillars important for long term sustainability are:

- The satisfaction of customers to ensure sustainability,
- Education about environmental importance,
- And responsibility (sustainable behaviour and political support) (Mihalič, Žabkar & Knežević Cvelbar, 2012).

Hotels are adopting and implementing a sustainable tourism policy to preserve their destination and, consequently, their competitiveness. Some authors referred that environmental sustainability is essential to increase the competitiveness of a tourist destination and contribute to a better living for that destination’s population (Pulido-Fernández, Cárdenas-García & Espinosa-Pulido, 2019; Kim, Li, Han & Kim, 2015). Mihalič, Žabkar & Knežević Cvelbar (2012) are also referring to how the literature points

out that there are direct costs behind environmental measures in hotels. Therefore, hotels are based on introducing an effort to reduce energy, water consumption, and waste. Hotels are opting to minimize the use of resources and save business costs (Mihalič, 2000). Additionally, all these measures increase the same hotel's reputation and image (Lee, Lee & Gunarathne, 2019). Therefore, hotels introduce environmental management to achieve sustainable development and thus save their operating costs. Such environmental sustainability is essential since it is evident that increased consumption in the hotel industry significantly affects environmental stability.

1.2 Development of environmental management and its characteristics

In the early 1990s, around the world, environmental management was developed in hotels (Penny, 2007). As Kirk (1998) states in his literature, already in 1992, leading international hotels led to a solution that can attain greater prosperity by working together. Based on that realization, it was created a community between eleven hotel chains and established The International Hotels Environmental Initiative or IHEI (Kirk, 1998, p.35; Mensah, 2006, p.415). Before developing IHEI, there were no stakeholders in hospitality to improve management to protect the environment. It took a few years for this community to issue various guidelines for hoteliers' managers and regulations with training them to run the company and protect the environment. Today, they work with many organizations in charge of nature conservation and tourism maintenance that will produce fewer adverse effects for the environment. Through its business, tourism leads to specific harmful impacts on the environment, such as warming and water pollution, and land pollution. Therefore, it is essential for everyone that tourism turns more and more towards establishing balance and reducing resources, and thus, the harmful impact. The fact is that tourism is not the primary source of environmental problems, but given that it is a large growing industry, it must take part in nature conservation (Kirk, 1998).

Environmental management recognition was contributed by the people's realization that the growth of tourism contributes to a negative impact on the environment and human health. The original ecological issue was environmental pollution caused by the release of harmful materials (Kirk, 1995). Later, the environmentalists realized that it was not just the production as an input unit responsible for pollution. They also discovered that stocks of materials within the company are being depleted at an unimaginable rate (Kirk, 1995). Many researchers (Penny, 2007; Kirk, 1998; Smolčić Jurdana, 2003) report how improving environmental performance in hotels, i.e., the introduction of environmental management, will contribute to lower use of electricity, reduce costs or increase profit and create an eco-friendly environment for staff of the hotels and customers.

Many researchers (Penny, 2007; Kirk, 1996; Cruz & Soto, 2010; Barrow, 2006) have given clear definitions of embodying environmental management. One of them (Penny, 2007) states that environmental management represents various organizational processes to

reduce and prevent the recurrence of adverse environmental impact. These negative impacts stem from that company's simple operations (Penny, 2007). Another researcher, in this case, Kirk (1996) sites and explains environmental management as a slightly broader program consisting of programs as:

- The impact on the environment, on culture, social life, the destination aesthetic appearance, and policy,
- Development of sustainability,
- Managing consumption of resources (water, energy, and waste);
- Care for emission and pollution.

As it has been already written, there exist various explanations of environmental management. One of the purposes of environmental management is presented through individual efforts and measures taken by the hotel to reduce their negative impact on the environment. This effort is reflected through a combination of different hotel's organizational and technical activities (Cruz & Soto, 2010, p.481). To enhance management and its operationalization, hotels can use various activities essential to minimize the environment's impact. These activities include changing the established process in hotels when services need to be created. Activities primarily refer to resource consumption, renewable energy sources, and material transformation that require technical expertise (Cruz & Soto, 2010).

Barrow (2006) is explaining environmental management through its main characteristics, which are listed below:

- It supports sustainable development;
- It is often used as a generic term;
- It deals with the world affected by humans;
- It demands a multidisciplinary, interdisciplinary, or even 'holistic' approach;
- It has to integrate and reconcile different development viewpoints;
- It seeks to co-ordinate science, social science, policy making, and planning;
- It is a proactive process;
- It generally embraces the precautionary principle;
- It recognises the desirability of meeting, and if possible, exceeding basic human needs;
- The timescale involved extends well beyond the short term, and concern ranges from local to global;
- It should identify opportunities as well as address threats and problems;
- It stresses stewards, rather than exploitation.

Managers must adhere to these characteristics to achieve the optimal balance of resource use (Barrow, 2006). As a result of different discussions and definitions about environment management, is the fact that the main goal and nature of management that deal with

environmental issues is to preserve and protect the environment both now and in the future (Kirk, 1996).

1.3 Environmental management principles or standards

There is a need for an excellent program to lessen the hotel industry's adverse effects and raise awareness of its contribution to tourism. Penny (2007) stresses that a proper plan of environmental direction must also include administrative tasks that should guide employees to achieve a common goal. Measures that control the impact of tourism on the environment are not enough if they are persistent in the proper preservation of the environment.

Researchers have established specific guidelines to achieve a common goal of being environmentally sustainable for all participants and have established certain environmental management principles (Kirk, 1995). These principles or standards have some concurrent guidelines with ISO 9000 on Quality Management Systems, and as Kirk (1995) describes, the following parts of establishing standards in any company are:

- Formulating environmental policy;
- Ensuring total commitment of all in the organization;
- Carrying out an environmental review;
- Determination of responsibilities within the organization;
- Preparing a register of environmental effects;
- Establishing objectives and targets;
- Implementing management systems;
- Commissioning periodic environmental audits;
- Performing regular systems reviews based on performance.

Hoteliers must recognize the importance of the implemented measures to reduce their negative impact on the environment. In this way, they would switch from their interest in saving costs and respecting the adopted laws to benefit society (Penny, 2007). It is necessary to introduce specific technical measures and strategies to contribute to the better effects that the hotel can have on the environment. To achieve these measures in improving business, the changes that will lead to better outcomes should come from the highest authority level (Kirk, 1995). Principles of sound environmental management intertwine with UNWTO's pillars for achieving long-term sustainable development of tourism.

1.4 Different environmental activities introduced in hotels

Concern for sustainable tourism development and their improvement has contributed to many hotels worldwide adopting environmental management practices. As already

mentioned in Chapter 1.2, industrial expansion, and its negative impact on the environment has led to increased awareness. It happens on both sides, the leaders who run the hotels and the consumers who use most of their services. The need for environmental management produced on both sides contributes to the different environmental practices that hotels have incorporated into their business and environment.

Since hotels operate 24 hours a day, they are a large consumer of resources and, therefore, significantly impact the environment. As a tourism hub, hotels work on various arrangements around the hotel and construct multiple facilities, cooking food, consuming water, and energy. All this leads to a negative influence on the environment if these activities are not managed reliably (Mensah, 2006). The hotel size and characteristics also affect the environment. Larger or luxury hotels consume more energy and water and have a notable higher impact on the environment (Kasim, 2007). Therefore, being more sustainable and responsible for their action is much more complicated to establish and under more pressure.

As stated by the author Mensah (2006), pressure on the tourism industry caused by its negative effect, by government and consumers, who are increasingly environmentally aware, has led to the adoption of sustainable environmental practices by hotels. Sustainable efforts by hotels lead to ecological benefits and money savings (Bruns-Smith, Choy, Chong & Verma, 2015). Hotels have also started to promote their efforts in preserving the environment. In their report document, Bruns-Smith, Choy, Chong & Verma (2015) review some of the best industry practices of sustainable programs in some hotels. Those hotels were Marriot and Hilton. For example, in 2011, Marriot received specific merits and titles because of its sustainable development commitment. The hotel was taunted as the first LEED certificated hotel in the United States. Also, this hotel is deepening its intention to preserve the environment both domestically and globally. Another hotel, the Hilton, has also promoted its environmental achievements. One goal was to reduce water consumption by 10 % and waste by 20 % by the end of 2013. They exceed that goal by reducing waste and water more than was expected. In addition to these goals, they have worked on other issues such as corporate governance, reducing drainage into the environment, and guests' reaction and participation as a crucial element of sustainable green programs (Bruns-Smith, Choy, Chong & Verma, 2015). Customer participation is necessary given that they are large consumers of hotel services. Despite their measures for reducing negative effects, hotels have discovered the importance of customers' involvement in green programs.

According to Fukey & Issac (2014), establishing measures to preserve the environment leads to certain advantages to the hotel. These benefits are reflected in brand strengthening and recognition by others, leading positions, gaining various awards, and customer trust. The hotel's initiative is addressed around three major areas: energy conservation, water conservation, and waste management (Fukey & Issac, 2014; Orloczki, 2012). The trend of being eco-conscious has brought a need for certifying hotels for their environmental effort, and that way, hotels can promote their achievements (Gil-Soto, Armas-Cruz, Morini-

Marrero & Ramos-Henriquez, 2019). It is necessary to make a change regarding their management in hotels to acquire a certain eco-certificate. The most used Eco-labels are The Green Globe Certification, The Leadership in Energy and Environmental Design Certifications, The Green Leaf Certification, Sustainable Development Eco-Certification Program, The European Eco-label, The Green Key, ISO 14001, and others (Fukey & Issac, 2014; Kampus, 2017). For reducing consumption of resources (water, energy, etc.), it is necessary to implement many actions, and it is up to the management of the hotels to adopt and enforce them adequately (Gil Álvarez, Jiménez Burgos & Lorente Céspedes, 2001). An explanation of these actions is going to be displayed in the next chapter.

Hotels undertake a variety of environmental practices. Besides installing environmental equipment as energy-efficient lightning, hotels are posting different environmental appeals of water and energy conservation in hotel rooms. It may be one of the critical solutions to involve customers in their program of protecting the environment. Although the use of towels is a very significant action, hotels are increasingly turning to save water through reusing bed linens. These practices have proved themselves well in most of the European countries. These programs emphasize saving water and reducing detergent, more extended use of towels and bed linens to avoid unnecessary costs and waste (Fukey & Isaac, 2014).

1.4.1 Energy consumption

After employment, the second largest spending category for the hotel is energy, and according to data in the case study of Upadhyay, Pomponi, Vadam & Mohan (2016, p.1) presents 3 % to 6 % of operating costs by hotels and is responsible for 60 % of CO2 emissions. Energy consumption depends on the different actions being carried out, buildings, and hotels' size and characteristics. Energy consumption also depends on location and other infrastructure (Upadhyay, Pomponi, Vadam & Mohan, 2016). Undoubtedly, one hotel's size plays an essential role in increasing energy consumption and, therefore, its emissions. According to Upadhyay, Pomponi, Vadam & Mohan (2016), most of the energy is used to regulate the temperature necessary for everyday business. That consumption applies to space heating, water heating, and air conditioning, accounting for about 69 % of energy consumption in hotels. Additionally, energy consumption is used for lighting, laundry and kitchen activities, hot water, and other activities that consume energy: meal preparation (boiling), pools, and more (Thompson, 2012; Hotel Energy Solutions, 2011). Since hotels operate 24 hours a day, energy consumption makes up an enormous amount, regardless of size, to ensure their guests' comfort and quality of service.

Upadhyay, Pomponi, Vadam & Mohan (2016, p.2) elucidate that various technical, architectural, local, and management factors influence energy consumption. That characterization is shown in Table 1 below:

Table 1: Different factors that influence energy consumption in hotels

Characteristics	Effects	Impact
Building Features Size Shape Age Materials Technical equipment	The bigger the building, the more energy is needed. A hotel where all the infrastructure is condensed in the same building will be more energy-efficient than a disparate property. A new building is supposed to be better insulated than an old one. The material used is important in terms of insulation and lightning of the building. The choice of electronic appliances is important, as they are to be energy efficient to reduce energy consumption.	Medium Medium Medium High High
Hotel features Category Facilities/Services	The higher the category, the higher the energy need (from 17.30 kWh PAR* for the economy to 89.35 kWh PAR for luxury). A hotel with only a few services and facilities will consume less energy than a hotel with a lot of services and facilities.	High High
Location Climate Local policies	Climate will impact the use of air conditioning and heating which are more necessary according to hot or cold areas. Local energy policies impact the prices and CO2 emissions, as they will determine the type of energy used: gas, electricity, nuclear, wind, solar, etc.	High High
Operations Energy management Occupancy Operational hours	The hotel's energy management policy is crucial in controlling energy costs, as it will involve all the parties (staff, investors, guests) and will set up targets and best practices. Occupancy will impact energy consumption. More people in the building will require more energy. However, there are still spaces where energy will be required independently of the occupancy. Operational hours may impact the price of energy in certain areas (cheaper in dedicated hours).	High Medium Low

*PAR=per available room

Source: Adapted from Upadhyay, Pomponi, Vadam & Mohan, 2016, p.2

Hotels consume around 320 kWh/m² during the year and emit between 160-200 kWh of CO₂ of surface area (European Commission, 2020b). Much of the energy consumption occurs due to losses and careless consumption. Although customers often adjust the temperature in the rooms themselves during the summer and winter months, they do not pay enough attention that their consumption can affect the environment. A habit like this is the reason why it is hard to control energy consumption in hotels. Often windows or doors are opened without turning off the cooling or heating system when customers are outside, and this ignorance leads to a massive waste of energy. Another issue with energy consumption is the uncontrolled and unnecessary consumption of energy. Usually, energy

is consumed even though there are no current guests in the room (Hotel Energy Solutions, 2011).

There is a variety of energy management practices that hotels can provide to increase energy efficiency. Some of the methods are not complicated to establish. These more straightforward methods include light bulbs that save energy, replace air conditioners with fans, and teach hotel guests the importance of switching off the lights when needed or leaving a room (Thompson, 2012). Some of the energy-saving actions are costly, but the investment in their realization is required due to the negative effect it can be caused by energy waste. The step of informing customers and staff about the importance of energy-saving does not create high costs for the hotel but requires constant training of people and presenting the significance of these actions (Upadhyay, Pomponi, Vadam & Mohan, 2016). Nowadays, most hotels give importance to guest education about the benefits of energy-saving. Additionally, some hotels use other ways for energy and money savings. Certain hotels put solar panels on the roof of the sauna. Solar panels are used to heat pools and saunas, and thus, besides mentioned above, contribute to the development of sustainability (Fukey & Issac, 2014). Likewise, the Hyatt Hotel in New Zealand has developed the possibility of automatic power off. When the guests are out of the room, all devices are turned off except for alarm clocks, refrigerators, and other essential appliances (Fukey & Issac, 2014). Another example of energy-saving is available in the hotel in Slovenia, Bohinj ECO hotel. The hotel's solution to reduce power consumption is a wireless switch with a card. In this way, energy is not wasted when the room is empty. When guests enter the room, they put the card that also unlocked the doors and turned on all devices. (Bohinj ECO Hotel, n.d.). In this way, unnecessary consumption of energy is reduced.

1.4.2 Water consumption

Water is the basis for living and is of great importance in the hospitality industry. Basic operations could not be performed in a hotel without water (Han & Hyan, 2018). Water consumption in hotels is indescribably high because all participants use it daily to meet their needs. Water is used in various ways, for food, drinks, washing, space heating, and heating for bathrooms (Morgan & Chompreeda, 2014). Without adequate water consumption monitoring, problems such as water scarcity could be encountered in the future. Although water is widely used in the household itself, this consumption is recorded much more in the hotels. A higher percentage of water use by hotels also causes a higher amount of contaminated water, which is another big problem with water use in tourism. Its release into the environment leads to the danger of pollution and enormous damage for water species (Fukey & Issac, 2014; Han, Lee, Trang & Kim, 2018). There is a water consumption movement between 84/100 L and 2000 L per tourists per bed night in specific articles on water consumption (Gössling et al., 2012; Gössling, 2002; Untaru, Ispas, Candrea, Luca & Epuran, 2016). This consumption is influenced by various factors: location-whether it is located in a rural or urban area, what the climate is like in that area.

The consumption of water is also influenced by the type of hotel, size, and comfort-is it a camp or a hotel with a higher number of stars (Gössling et al., 2012).

As the importance of uncontrolled water use was realized, hotels began to introduce different ways of using water more proportionately. They started to replace the current devices with more efficient ones (Han & Hyan, 2018; Bruns-Smith, Choy, Chong & Verma, 2015). Recycling greywater for reuse of washing water can reduce almost 23% of the total use of water in hotels (Bruns-Smith, Choy, Chong & Verma, 2015, p.8). As one method to reduce water consumption, hotels use motivational appeals in various places to involve the guests in lowering water consumption. In their report, these methods, Bruns-Smith, Choy, Chong & Verma (2015) explain as effective. The amount of water consumed depends on individuals and their awareness of conserving resources during holiday time. Guests use water in all possible ways, especially in the bathroom during showers, brushing teeth, hands, and changing towels (Han & Hyan, 2018). Other reports (Untaru, Ispas, Candrea, Luca & Epuran, 2016) cite that the nature of tourists' behaviour is one reason for the higher water consumption during a holiday. This report says that tourists use more water while at a hotel, which is the consequence of seeking pleasure-behavioural tendencies to long showering or bathing. Based on this, increasing importance should be given to educating individuals about their importance for preserving the environment. Their every move is crucial for the efficient maintenance of the business to ensure at least possible exploitation of resources. Individual campaigns should be held daily to inform individuals and raise environmental awareness (Untaru, Ispas, Candrea, Luca & Epuran, 2016). Additionally, introducing environmental messages about the environment's problem due to excessive water consumption could stimulate hotel guests (Gösslong, 2002).

Because of the low level of modification and financial investment, hoteliers focus attention on the most efficient water savings measures (Fukey & Isaac, 2014). In this case, they refer to the reuse of bed linen and towels, the establishment of more efficient shower devices, and water use in the toilet. For all these activities to lead to maximum water savings in one organization, it is necessary to synchronize technology, knowledge, and awareness of the environment. Taking care of water infrastructure is required to get the desired effects (Fukey & Isaac, 2014).

One example of water-saving is also introduced in Bohinj ECO Hotel, in Slovenia. The water used in hotels is taken at a depth of 430 meters, and it is geothermal. This water is used to heat the hotel rooms and to heat the shower water. The used water in this way is then again used for flushing the toilets. Another way of good using this water is to take away the warmth from already used shower water. After taking away the heat from the used water, the water is only then sent to the ground (Bohinj ECO Hotel, n.d.).

1.4.3 Waste consumption

For many years, the hotel industry has been facing waste reduction and recycling processes (Bruns-Smith, Choy, Chong & Verma, 2015). Recycling, as one part of waste management, is a widespread practice in hotels. Expert handling of waste (organic waste) can produce fertilizer, an ideal way to recycle. Through activities such as charity, waste can also be reduced. Charity will extend the life of furniture and reduce the amount of waste (Bruns-Smith et al., Choy, Chong & Verma 2015). Most hotels do not currently practice these environmental waste reduction measures as they require large investments in equipment and training. A more acceptable variant and more comfortable to implement environmental protection measures are installing soap and shampoo dispensers. These protection measures would reduce the amount of packaging thrown away (Fukey & Issac, 2014).

If measures are taken to reduce waste in the hotel, savings can be made on the disposal of that waste. Fukey & Issac (2014) state that back in 1994, a particular hotel (The Westin San Francisco Airport Hotel) implemented a waste recycling program. As part of that program, they bought already recycled products. They also focused more on educating employees about the importance of these programs for the environment. The surplus food that remained was donated and thus reduced the waste in a hotel. Spoiled food was disposed of for composting because it was suitable for making fertilizer used further. All these processes led to the circulation of waste in nature, its more generous use, and reduced waster. To reduce paper consumption is advantageous to reduce or not practice printing various coupons (Fukey & Issac, 2014).

It is believed that guests of a particular hotel may produce one kilogram of waste per day. This waste accumulates and can be thousands of tonnes of waste per year (Zorpas, Voukkali & Loizia, 2014). How much waste will be produced depends on the characteristics of that hotel. Factors such as guests' characteristics, environmental awareness of guests, hotel size, and occupancy affect the amount of waste generated. It is considered that most of the waste in the hotels contains plastics, glass, and food waste (Pirani & Arafat, 2014).

As already said, most waste is generated through food waste that the hotel is facing. In addition to food, there are several other contaminants and waste outside the hotel kitchen. This applies to various oils, pesticides in gardens, and car pollution in parking lots. Waste is also produced in the administration during the use of multiple papers and cardboard. Also, carpets, towels, and linen become a waste over time. It is preferable to separate non-reusable waste separately so that part serves at least for recycling. Certain hotels, such as Hilton International and Fairmont Hotels and Resorts, with waste separation, start already in the rooms and set up different waste bins (Baker, 2006).

1.4.4 Reusing

Reusing is another part of waste management, which is increasingly being introduced in hotels nowadays. Significant way hotels are trying to reduce waste is to introduce a program to reuse towels and even bed linen. These programs involve guests in the process of conserving resources. Guests are kindly requested not to send towels for washing immediately, but to use them once more if possible and not ask to change bed linen every day. This activity can save a significant amount of electricity and water and reduce detergents and reduce packaging, which is also waste (Baker, 2006; Han & Hyun, 2018). The practice of reusing towels can be an efficient, environmentally-friendly activity in every hotel, which requires guests' involvement in its effective implementation. The appeal for towels reuse contains messages placed in prominent places in toilets in the rooms (Han & Hyun, 2018).

According to Kampus (2017), bottle reuse is also a prevalent eco-friendly practice among hotels working for ecological conservation. Water bottles can be reused, or bottles such as beer packaging can be recycled. This practice has no such negative impact on the environment since this process does not require material extraction, industrial treatment, manufacturing, and transport.

1.5 The EU Eco-label for tourist accommodation

Tourist accommodation is a large consumer of water and energy. Improper waste management can put pressure on the ecosystem and harm the environment. To avoid the bad consequences of doing such business, tourist accommodation recognized the importance of environmentally friendly service providers and started operating under the EU Ecolabel instructions (European Commission, 2020a).

As early as 1992, the EU Ecolabel was established. It is a label that shows an outstanding contribution in ecological terms and refers to products and services (from the beginning of production, the production itself, transport, and disposal) that meet environmental standards. This label also intends that most producers operate to generate as little waste as possible during the production process. In this way, they are encouraged to create more durable products that can be recycled. It is also the only certified label widespread in Europe (European Commission, 2020a).

Specifically, when it comes to accommodation facilities in tourism, this label has the following instructions:

- Reducing the consumption of energy;
- Reducing consumption of water;
- Produce less waste;
- Use resources that are renewable and do not harm the environment;

- Educate staff about the importance of reduced resource use on the environment (European Commission, 2020a).

2 PRO-ENVIRONMENTAL BEHAVIOUR IN TOURISM

2.1 Explanation of pro-environmental behaviour in tourism

With the growing concern for the environment and awareness of consequences that tourism has, widespread research shifted effort to explain pro-environmental behaviour specifically. Some research suggests that it is demanding and challenging to change behaviour to move towards environmental action (Mair & Bergin-Seers, 2010; Mair & Laing, 2012). The best explanation of pro-environmental behaviour is given by Bamberg & Moser (2007), where behaviour is presented as “a mixture of self-interests and pro-social motives” (p.15). Self-interest refers to maximizing personal utility; in exchange for personal benefits, individuals will also be interested in changing behaviour (Dolnicar, Knezevic Cvelbar & Grun, 2016). The second determinant of the behaviour relates to caring for others, the future, and the consequences the current behaviour of individuals can leave for the environment in the long run (Bamberg & Moser, 2007). Acting according to moral standards will result in a positive concept of people (Bolderdijk, Steg, Geller, Lehman & Postmes, 2013). Poškus, Valickiene & Kuzinas (2019) define pro-environmental behaviour as any behaviour of an individual neutral or beneficial to the natural environment. Therefore, the individual’s behaviour should be reduced to as neutral as possible and beneficial to the environment, considering that behaviour can greatly affect the individual and society in general (Fishbein & Ajzen, 2010).

There are several theories by which researchers have tried to explain the causes of changes in individual behaviour. One of them explained responsible behaviour due to personal norms to behave with moral obligation and developed the norm influence theory (Schwartz, 1977). Second, researchers believe that the cause of an individual’s behaviour is a consequence of their interests and attitude regarding individual behaviour. Such a view is described in The Theory of reasoned action (Fishbein & Ajzen, 1975) and in an extended version of that theory, the Theory of Planned Behaviour (Ajzen, 1991). Han (2015) states that none of the researchers used these theories to explain the hotel’s behaviour. The Theory of Planned Behaviour is used in many studies because it contributes to a better understanding of the reasons influencing human behaviour changes (Budovska, Delgado & Øgaard, 2019).

In his study, Stern (2000, p. 416) groups the casual variables to explain pro-environmental behaviour change into four major types. The first type is attitudinal, which includes values, beliefs and norms, and non-environmental attitudes. The second type is external variable and has everything from the outside than can affect an individuals’ behaviour such as community, government regulations, various monetary incentives, independent costs,

advertising, interpersonal influences, limitations and the opportunities provided by technology and the environment itself, and current social, political and economic developments plan. The third type of casual variable is personal capabilities. This variable represents an individual's characteristics, such as the skills and knowledge required, social status, and money as necessary resources to understand the reason for a particular behaviour. It is also suggested that socio-demographic characteristics such as education, age, race, and income indicate personal variables. The last variable is a habit/routine. It is an important determinant when it comes to an individuals' behaviour. It can be a reason for certain behaviours and can also lead to a more difficult adaption to a new situation, especially when it comes to behavioural changes to be more eco-aware because this process takes time and requires commitment.

Mair & Bergin-Seers (2010) argue that interventions can occur in many behavioural change programs to promote or maintain desired behaviour. Interventions may refer to specific activities that will encourage individuals to change behaviour. Using interventions to create behaviour change differs from individuals' characteristics (Mair & Bergin-Seers, 2010). For someone who is already aware of environmental protection and shows a tendency for the environment, specific interventions will have a more significant impact on behaviour consistent with their purpose than on individuals unaware of the importance that their behaviour may have to the environment. One example of intervention intended to influence hotel guests' behaviour is environmental messages with descriptive design to encourage guests to reuse towels, reduce water and energy consumption, and ultimately environmental pollution (Goldstein, Cialdini & Griskevicius, 2008; Reese, Loew & Steffgen, 2013).

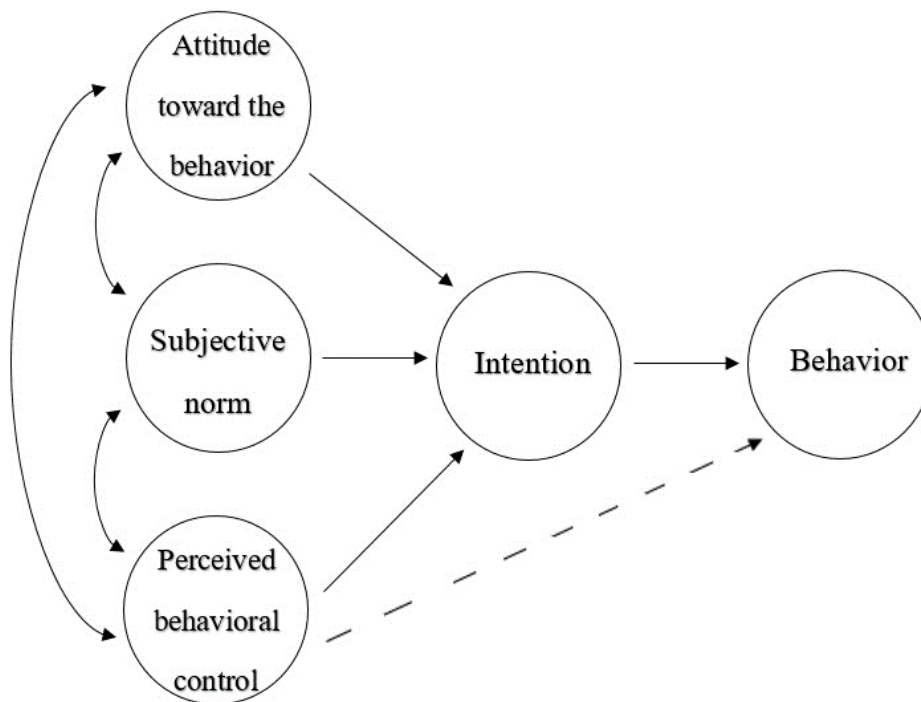
Most of the studies on pro-environmental behaviour did not count for the hedonic context of tourism (Dolnicar, Knezevic Cvelbar & Grün, 2016) when explaining the causes of pro-environmental behavior in people. As the authors state, tourist behaviour has a critical impact on environmental sustainability in tourism. It is hard to change tourist behaviour since tourism is hedonic (Dolnicar, Knezevic Cvelbar & Grün, 2017). An analysis of Dolnicar & Grün (2008) showed that people do not feel responsible for the environment on vacation. The reason behind that kind of behaviour is that rest time imposes our carelessness and dedication to ourselves but not caring for the environment. Even if people take care of water and energy at home, they are doing it for self-purpose and savings. Although people care about the environment, the fact that they go on vacation can harm the environment (Juvan & Dolnicar, 2014). Unfortunately, when tourists are in a hotel, they do not pay attention to savings since they have already paid for being in that hotel. Additionally, people are not aware of the consequences that their behaviour can produce in the long term.

2.1.1 Overview of theory of planned behaviour

Increasingly, tourism research relies on certain theories that have tried to explain and predict human behaviour. The importance of specific behaviour for the environment is well understood, and the contribution that the process of its changing would have to the results if the process is successful. Therefore, it is worth presenting the most commonly used theory that many authors have used in their research (Verplanken, Aarts, van Knippenberg & Moonen, 1998; Budovska, Delgado & Øgaard, 2019) to explain behavioural intention.

As authors Budovska, Delgado & Øgaard (2019) state, The Theory of Planned Behaviour contributes and helps explain hotel guests' pro-environmental behaviour. Guests' pro-environmental behaviour is important to understand on the hotels part to achieve measures that will positively influence the tourists' behaviour. Therefore, in the continuation of the research, a few words related to their determinants would be. In Figure 1 below can be seen three main determinants:

Figure 1: Determinants of The Theory of Planned Behaviour



Source: Ajzen (1991, p.182)

As already mentioned, according to Ajzen (1991), The Theory of Planned Behaviour is an extended version of The Theory of Reasoned Action. This theory has three independent components that determine intention. Attitude toward a behaviour is the first component

and represents a certain level to which “a person has a favorable or unfavorable evaluation or appraisal of the behavior in question” (p.188). The second determinant is the subjective norm and displays “perceived social pressure to perform or not perform the behavior” (Ajzen, 1991, p.188). This theory’s final determinant is perceived behavioural control, which is defined as “perceived ease or difficulty of performing the behavior” (Ajzen, 1991, p.188). The combination of these three-factors depicts the intent to behave in certain situations. Therefore, the theory is based on the assumption that the more potent combination of attitude and social norms concerning behaviour and the higher perception of the behavioural control, the greater is the intention of an individual to perform certain behaviours. How each of these three determinants will be more significant in determining behavioural intention will be depended on the particular situation (Ajzen, 1991, 2006; Ting, Hsieh, Chang & Chen, 2019).

2.1.2 The significance of past behaviour

Although this study does not deal with a detailed analysis of tourists’ behaviour, it is worth mentioning a few sentences related to past behaviour and their impact on future behaviour. When the significance of tourists’ past behaviour is somewhat understood, it can be used to predict tourists’ future performance.

It is challenging to predict intent based on the individuals’ behaviour, which has already been noted in the literature. The issue regarding past behaviour relates to discovering the extent to which it may indicate individuals’ intention to behave again in the same ways, and how reliable it is to include that measure to make a particular decision (Budovska, Delgado & Øgaard, 2019). The authors, Budovska, Delgado & Øgaard (2019), found out that past behaviour positively influences behavioural intention, both directly and indirectly. Therefore, past behaviour can be one of the determinants when it is necessary to investigate the reason for guests’ environmental behaviour. Also, other authors have used research on past behaviour to explain future intentions. Ouellette & Wood (1998) described how past behaviour affects future performance through two possibilities. When the behaviour is well known and repeated continuously, it becomes automatic and is reflected as a habit. Such past behaviour has a direct impact on future performance. In the second case, when the behaviour is not continuously repeated and is not learned, to perform future behaviour, it will be necessary to make a conscious decision to perform a specific behaviour. Based on these conditions and a combination of attitude and social norm (which are the determinants of The Theory of Planned Behaviour), past behaviour will lead to future intention. Suppose the researcher’s claims are incredibly valid that past behaviour has a particular impact on future performance. If people get the habit through different hotel programs (in this case, pro-environmental appeals), there is a good chance that such behaviour will continue in the future. Therefore, it is necessary to analyse whether the pro-environmental appeals are sufficient to encourage the formation of habits in tourists to behave environmentally, which is the goal of this research. If pro-

environmental appeals do not impact environmental behaviour as assumed and if, on the other hand, we are aware of the fact that behaviour can contribute to future performances, the strategy of including tourist with the help of pro-environmental appeals in the hotel room should be changed or improved to obtain the desired results.

2.2 Overview of pro-environmental appeals in the hotel rooms

Environmental activities in the hotel industry or green marketing in the hotel rooms (Lee' & Oh', 2014) anticipate the hotel's communication to the guest, intending to encourage guests to engage in sustainable programs of the hotel. Those activities refer to reusing linens and towels (Lee' & Oh', 2014) and using less water and electricity. Creating useful messages to protect the environment is requisite for the sustainable development of hotels. Pro-environmental appeals as a green communication relate to informing and requiring guests to turn to perform a particular environmental action (Lee' & Oh', 2014). The overarching goal of these pro-environmental appeals is to involve as many hotel guests as possible to support the hotel's efforts to preserve the environment and reduce excessive use of resources, costs and increase the image of green hotels. It is a demanding activity of the hotel to involve guests in the process of preserving the environment. Consequently, hotels must find adequate ways to include guests in paying attention and implementing pro-environmental appeals relating to towel reuse, water consumption, and energy consumption. Pro-environmental appeals are easily ignored by guests (Lee' & Oh', 2014). As already mentioned in sub-chapter 2.1.1, hotel management must understand the guest's behavioural decision to communicate this environmental message and achieve sustainable goals effectively.

Lee' & Oh' (2014) state that one of the most famous persuasive communication with hotel guests to motivate them to participate in environmental programs is messages that can be framed in various ways to express the desired fact. According to different theories on message framing that Lee' & Oh' (2014) summarized in their study, the application of those messages in hotel rooms may have a positive frame, such as "if you reuse towels, you conserve natural resources or negatively if you do not reuse towels, natural resources will not be conserved" (p.2). Other types of the frame can be focused on promotion: "reuse towels to promote water and energy saving" (Lee' & Oh', 2014, p. 3) and focused on prevention: "reuse towels to avoid unnecessary water consumption" (Lee' & Oh', 2014, p. 3). The benefits of towel reuse would be perceived differently by guests when appeals are expressed in the present and not the future. The ultimate frame of pro-environmental appeals can be designed to convey the importance of the actions taken for society's benefits or simply for the individual's satisfaction if he behaves ecologically (Lee' & Oh', 2014). This previous literature has given great importance to pro-environmental appeals, their appearance, shape, or frame. What if those appeals are not visionary or not effective in encouraging the necessary persons to take the desired actions?!

Whatever message frame management takes must count for the different effects of these messages on guests' perceptions and their impact on behavioural change and intent to engage in hotels' environmental activities. They should also rely on previous studies and the effects (positive and negative) of different messages they bring to guests. This research will no longer look at the impact of various messages/appeals that exists to enhance the impact on guest behaviour since the goal of the study is to examine the effect that general pro-environmental appeals have on a guest's decision to behave environmentally conscious and whether they read these appeals at all.

2.2.1 Example of pro-environmental appeals in hotel rooms

The accommodation sectors, primarily hotels, have introduced certain activities to make guests aware and behave as consciously as possible regarding environmental protection. This situation is already entrenched in Europe hence also in Slovenia. These activities, as can be seen in the literature review from previous chapters, are usually focused on requests to reuse towels, to reduce the use of water by shortening the time of showers, and to inform hotel guests about the importance of conserving resources for the environment (Mair & Bergin-Seers, 2010).

One of the examples of these requests to reuse towels to their guests can be seen in a hotel Vivat****Superior in Slovenia. Hotel Vivat****Superior is a modern hotel with 161 rooms that offers its guests the opportunity to engage in environmental activities and has equipped their bathrooms with appeals for guests to reuse towels and thus help preserve the environment; see Figure 2. This environmental appeal states how tonnes of towels are being washed in hotels worldwide, and tons of detergent are being used, consequently harming our environment.

*Figure 2: Example of the environmental appeal to reuse a towel at the Vivat****Superior Hotel*



Source: Own photo, 2020.

2.2.2 Overview of pro-environmental appeals impact on tourists' behaviour from previous literature

There is a mixture of studies based on pro-environmental appeals impact on tourists' behaviour to engage in environmental activities. Some studies have shown the positive influence of hotels' effort, unlike others showing how the same effort is not effective enough to trigger guests' environmental behaviour. All of the studies have various contexts for the positive or negative impact of the room appeals, such as the hedonic context of tourism, the importance of social norms in influencing behaviour, intervention, awareness of the contents of the messages, and attitude.

In 2016, researchers conducted field research to examine whether pro-environmental appeals effectively impact tourists to reduce energy consumption and increase the use of towels at the Bohinj Eco Hotel in Slovenia. Researchers placed pro-environmental appeals in the form of stickers in certain prominent places in hotel rooms. Some of them were positioned next to the TV, the light switches, and the bathroom next to towels. The pro-environment appeals were not aimed at raising awareness of environmental issues but were also intended to reduce electricity use and towels. The experiment lasted 81 days to collect all the data. Every day in the morning, energy consumption was recorded, and the cleaners

recorded the number of used towels. Statistical test - Wald chi-square test was used to test this experiment. After analysing data on energy consumption, no significant differences were found. No significant differences in towel reuse were also found. All this led to the conclusion that placing these appeals in the planned places did not significantly impact tourists. Researchers explain this finding through the hedonic context of tourism. Tourists are not inclined to change their behaviour when they are on vacation because they are committed to their interests and not the hotel's interests. Their environmental awareness is not strong enough to encourage them to conserve resources (Dolnicar, Knezevic Cvelbar & Grün, 2016).

Another research was carried out in motels in Australia in 2010. The purpose of the survey was also to examine whether the different environmental messages that were in the hotel had an impact on tourists to reuse towels. They used four different types of messages based on which they just informed tourists, and with the information in the second type of messages, they offered a request. The third type gave descriptive norms besides only data, and the last type was offering an incentive for the guests. For the research, a questionnaire was used. The questionnaire survey was left in the hotel rooms with opportunities for guests to fill out. After analysing the completed questionnaire, the data showed high reuse of towels because most respondents (about 84 %) answered that they used the towel again. The researchers explain that the possibility of such a high reuse rate is that the questionnaire answered most tourists who reused the towel rather than those who did not. When summarizing the responses on the impact that the environmental messages had on tourists to reuse towels, most respondents agreed that the messages had a specific effect on them (Mean score was 3.05 on a five-point scale). Researchers also have shown that business travellers are more inclined to reuse towels than tourists who travelled for personal reasons. The assumption that leisure tourists do not show a strong intention to reuse towels can also be used later on to explain the thesis's aim because this research is based on the assumption that tourism is more hedonic, and its hedonic context could be why tourists are not reading pro-environmental appeals during the rest time in a hotel room. Based on other questions asked in the questionnaire, the research also found out the guests' opinion on whether they are aware of the messages and the hotel's effort to encourage them to reuse towels. The results showed that 40 % of guests remembered the sign. Therefore, they concluded that guests are aware of the messages' existence but are not fully aware of the content they carry (Mair & Bergin-Seers, 2010).

The third study, which is good to mention, was conducted to examine the effectiveness of signs placed in the hotel, including guests in resource protection programs. As part of that study, two field experiments were performed. In the first experiment, they used standard messages that did not explain much and descriptive messages where they informed current guests how other guests were also using towels again to invite them to join this process together. In that way, researchers examine which of the two messages impacted more guests to reuse towels. Indeed, messages containing descriptions showed better efficiency

than the standard ones. They caused greater reuse of towels at the point. Knowing that others have participated in preservation programs, other guests are also encouraged to take action. In another experiment, they examined whether guests were motivated more by provincial norms of messages to reuse towels than a global one. The first one applies only to the guests' room surroundings, while the second one applies to the entire hotel. Five different messages were used, one of which was the standard sign. As assumed, the results showed that reading descriptive messages carry greater efficiency than standard ones. The data showed the importance of informing guests about how other people participate in preserving resources. It is not enough just to educate the guest about the protection of the environment. They need to be motivated in a certain way, and that research did this by referring to other participants (Goldstein, Cialdini & Griskevicius, 2008).

The most recent study in 2016 of the above studies has already recognized the reason that might be behind the inefficiency of pro-environmental appeals in hotel rooms. These reasons might be due to tourism's hedonic context and due to tourists who enjoy their vacation and do not pay enough attention to responsible behavior. Based on that research, analyzing the impact of pro-environmental appeals on tourists' decision to behave responsibly during a vacation and paying attention to these appeals in their rooms seems interesting, especially a few years later. Given that things are changing very fast today, it will be, undoubtedly, interesting to find out what the thoughts or insights of today's tourists are and whether these appeals impact their behavior to take action.

2.3 Tourists' attention to pro-environmental appeals

There is no a lot of prior studies that examined tourists' attention to pro-environmental appeals. The study of Mair & Bergin-Seers (2010) examined whether tourists are aware of pro-environmental appeals. In that study, researchers formed open-ended questions to examine tourists and test whether they were aware of environmental messages. The second goal was to gather tourists' opinions on what hotels generally do to influence guests' behaviour in the desired direction. Data obtained after the analysis showed that 40 % of respondents mentioned signs in the hotel rooms. A small number of respondents remembered the sign itself's content (during the research, three different signs were used). It was concluded that the guests are aware of these messages, but it cannot be said that these same guests are also aware of the content that these messages carry. Based on the discussion in Chapter 2.1 on how people do not feel responsible for the environment on vacation because of the hedonic context of tourism (Dolnicar, Knezevic Cvelbar & Grün, 2017; Dolnicar & Grün, 2008; Knezevic Cvelbar, 2019), it is assumed that tourists are not paying attention to pro-environmental appeals, respectively are not reading pro-environmental appeals in the room carefully. This assumption is one of the hypotheses of this research that will be examined in the continuation of the thesis.

3 METHODOLOGY PART OF THE RESEARCH

3.1 Description of the research method

The thesis's hypotheses rely on pro-environmental appeals at hotels and their impact on tourists' behaviour regarding towels reuse, water, and energy consumption. Research also studies whether tourists are aware of these pro-environmental appeals at the relevant spots during their stay at a hotel. The quantitative research method will be used to define whether tourists pay attention to pro-environmental appeals during their stay in a hotel and how pro-environmental appeals impact their behaviour.

The quantitative research method is usually used to collect data, which are then statistically tested to prove or reject the research claim (Williams, 2007). The quantitative research approach is more suitable for this thesis since it primarily follows the confirmatory scientific method considering that the focus is on testing hypotheses and theories (Williams, 2007). This research reflects the philosophy of positivism, which is used for collecting data based on theory. The thesis's hypotheses would be confirmed or rejected based on the obtained data during research. This thesis's approach is deductive as the study developed hypotheses and will use statistical methods to test, which means approving or rejecting developed hypotheses (Saunders, Lewis & Thornill, 2009). An analysis of measurable results obtained from the research questionnaire will be performed to test all hypotheses.

According to Williams (2007), several research methods such as development design, correlation, observation, and survey research exist for conducting quantitative research. The thesis's used research method is a survey since it usually fits in with the deductive approach. The survey collects a large amount of data from the population and does not require high costs (Saunders, Lewis & Thornill, 2009). Therefore, this method is often applied to various students' papers. The survey is simple and easy to understand for people; thus, it is advantageous for this study where tourists' opinions and behaviour are critical to gather necessary data.

3.2 Explanation of the purpose and goals

The thesis's purpose is to analyse the impact of the pro-environmental appeals in a hotel on tourists' behaviour regarding their engagement in environmental activities. The purpose also includes examining whether tourists are aware of these pro-environmental appeals at the relevant spots during their stay at a hotel.

The purpose is essential for a better understanding of how particular environmental actions of hotels may be insufficient to influence tourists' intention to become more environmentally conscious when on vacation at a hotel. Placing pro-environmental appeals

is costly for hotel participants. If this green program does not work successfully, if guests do not pay attention to these appeals, other measures should be taken to make pro-environmental appeals efficacious. In the future, the thesis purpose might help address this pro-environmental appeals problem and find a solution in improving their purpose by examining why specific pro-environmental appeals do not achieve suitable results.

Within this thesis, the following **hypotheses** will be tested:

Hotels are attempting to give their best to raise awareness of tourists' environmental behaviour. Apart from that, hotels are trying to involve as many tourists as possible in reducing negative consequences on the environment through various programs such as placing pro-environmental appeals in hotel rooms. Exactly as what researchers found in their experiment, pro-environmental appeals (stickers) positioned in the exact place were not effective enough to trigger pro-environmental behaviour (Dolnicar, Knezevic Cvelbar & Grün, 2016). Even though hotel management implements visual information about ecologically sustainable environment behaviour through appeals at the relevant spots where such behaviour is expected or suggested to happen, it appears that this visual and linguistic stimulation does not communicate the desired message with the tourists. Therefore, the following hypotheses were developed:

H1: Pro-environmental appeals, placed in hotel rooms, do not have an impact on tourists' behaviour to reuse towels.

H2: Pro-environmental appeals, placed in hotel rooms, do not have an impact on tourists' behaviour to use less water while washing and brushing teeth.

H3: Pro-environmental appeals, placed in hotel rooms, do not have an impact on tourists' behaviour to turn off the lights.

Being environmentally conscious, especially during vacation time, is a complex act as well as a process of changing tourists' behaviour in that direction. Mair & Bergin-Seers (2012) interpret that pro-environmental behaviour refers to a combination of personal interests and social motives. Based on this theory and the fact that tourism is more hedonic (Dolnicar, Knezevic Cvelbar & Grün, 2016), it is difficult to influence tourists' interests and change their behaviour during vacation time. Most tourists are willing to enjoy their vacation as much as possible and experience the change from daily lives and responsibilities. Given that it was shown how pro-environmental appeals at the relevant spots have no impact on tourists change in behaviour, other assumption arises. It may be a case that tourists are not paying attention to these appeals during their stay in a hotel room since tourism is hedonic, and they are more focused on self-interest and vacation rather than paying attention to these appeals (reading stickers). In line with this assumption, the following hypothesis is offered:

H4: Tourists do not pay attention to the pro-environmental appeals placed in their rooms.

This study's goals are connected with testing hypotheses and had an additional goal that described existing literature on pro-environmental behaviour in tourism to bring a clearer picture of the factors that might affect environmental behaviour in tourism.

Research goals are:

1. To provide a synthesis of the literature on pro-environmental behaviour in tourism;
2. To assess whether pro-environmental appeals have had an impact on tourists' behaviour regarding their engagement in environmental activities;
3. To survey the impact that pro-environmental appeals had on tourists' behaviour in the hotel on the sample of tourists population by asking respondents to recall their last stay in the hotel and to recon on the presence of pro-environmental appeals;
4. To be analysed in more detail the impact of pro-environmental appeals on tourists' behaviour in hotel and tourists attention to these appeals based on the result of the survey;
5. To recommend other possibilities of placing pro-environmental appeals or replacing them with other measures that will more effectively influence tourists' behaviour to reuse towels, use less water while washing and brushing teeth, and to turn off the lights.

3.3 Description of data collection methods

Secondary data brings some savings in time, money, and resources and is therefore much cheaper and more useful for data collection than to collect the same data alone (Saunders, Lewis & Thornill, 2009). The secondary data include mostly existing theories of environmental management and pro-environmental appeals impact on tourists' behaviour. These data were collected from the scientific database, such as Science Direct, Taylor & Francis, Sage Journals, JSTOR, EMERALD, EBSCOHOST, Springer Link, and Google Scholar. The retrieved literature includes different articles, academic papers, and books about the theory of environmental sustainability in tourism, environmental management, environmental management practices in the tourism industry, and pro-environmental behaviour in tourism. It includes different publications, prior studies, master's theses, dissertations, and journals about pro-environmental appeals' impact on tourists' environmental activities and awareness of the same appeals. For this research, the most appropriate theories about pro-environmental appeals' impact on tourists' behaviour were chosen.

Primary data collection includes a questionnaire as the research instrument for this thesis. A questionnaire is a most often used technique to collect data within the research. It asks each respondent to answer the same set of questions. The questionnaire collects data from a large sample at a specific time and thus provides efficiency in data collection (Saunders, Lewis & Thornill, 2009). For research that requires a larger number of open-ended questions, questionnaires are not a reliable way to collect data. Their effectiveness has

been demonstrated in structured questions where all questions can be experienced in the same or similar way by respondents (Saunders, Lewis & Thornill, 2009).

The primary data is based on quantitative methodology and will be collected through a structured and self-administered questionnaire survey distributed to the tourist population. The questionnaire will be conducted on tourists through the non-probability sampling technique and its subgroup self-selection sampling. In this method, participants choose whether to participate in the research by answering questions (Saunders, Lewis & Thornill, 2009). Since the questionnaire will be administered online via the Internet, asking for tourists to fill out a questionnaire, self-selection sampling is the most appropriate technique. The survey link will be distributed, using the web-based tool, to different social media travel groups, mainly on Facebook. The target population will be a sample of 150 tourists to get as credible information as possible. Assuming that younger tourists do not participate in environmental activities, the age limit will be 18 years old. Respondents will be asked to recall their last stay in the hotel, recon on the presence of pro-environmental appeals during the stay in their rooms, and whether appeals influenced their behaviour in performing environmental activities. Using a questionnaire survey is needed to collect empirical information, opinions from respondents about their attention to pro-environmental appeals, and rate the impact these appeals had on their behaviour regarding towel reuse, water, and energy consumption. After completing primary data collection, questionnaire data will be analysed using software packages as SPSS (Statistical Package for the Social Science), and hypotheses will be tested using statistical *t*-tests in the program.

3.4 The layout of the questionnaire, description of the questions

At the very beginning, respondents will be able to learn more about the research. The questionnaire's start will provide a brief introduction regarding the research topic, and the invitation to answer an anonymous survey will be delivered. The questionnaires' messages are considered to affect the replies' rate, so this message must be concisely (Saunders, Lewis & Thornill, 2009). The covering letter clearly and concisely is explaining why the researcher wants the respondents to complete the survey. Due to the questionnaire's clarity and comprehensibility, the term environmental message instead of the pro-environmental appeal is used throughout the questionnaire. Given that the questionnaire will be delivered to various tourists for whom it is unknown whether they have encountered this term so far, environmental messages are more approximate for the simple understanding of the asked questions. A five-point Likert scale will measure some of the constructs regarding attention to pro-environmental appeals, where 1 means never and 5 means all the time/always. Other questions regarding the respondents' opinion of pro-environmental appeals' impact on behaviour are measured on a five-point numerical scale where 1 means no impact, and 5 means very high impact.

The questionnaire starts with a filtering question:” Remember the last time you have been at the hotel. Have you noticed environmental messages which inform you about environmental protection and request a change in behaviour to reuse towels, use less water or save energy?” which allows filtering tourists who have noticed the pro-environmental appeals. The tourists who have noticed the pro-environmental appeals will continue answering the questions relating to the testing hypotheses.

The outline of the questionnaire is divided into three sections: The first part covers general questions regarding respondent’s awareness about pro-environmental appeals, what they did communicate to them, in which form appeals were as well as what way of communication those appeals conveyed to them to get more information from tourists who have noticed the pro-environmental appeals. In the first part of the questionnaire, there is one question (“Can you remember how those messages made you feel...”) which aims to provide respondents’ feeling that pro-environmental appeals evoked when being on holiday. It is intended for a better understanding of the profile of respondents. Additionally, this question can serve as an introduction to testing hypotheses if most tourists choose the option ‘they did not make any impact on me’. This question is not intended to test any hypotheses.

The second part of the questionnaire covers the main questions regarding variables, i.e., respondents’ opinion to pro-environmental appeals’ impact on their behaviour and paying attention to pro-environmental appeals in the hotel rooms. The following questions in the second part of the questionnaire are intended to rate pro-environmental appeals’ impact on their decision to reuse towels, use less water, and turn off the lights to test the first three hypotheses. The questions are asked to be rated on 5 points numerical scale ranging from 1, which means “no impact”, 2 means “low impact”, 3 means “some impact”, 4 means “fairly high impact”, and 5 means “very high impact”. There is also a question intended to examine the frequency of reading pro-environmental appeals during the holiday to test the fourth hypothesis. This question is asked with a five-point Likert scale and has the following meaning: 1 means “never”, 2 means “rarely”, 3 means “sometimes”, 4 means “very often”, 5 means “all the time/always”. It will examine how frequently respondents read pro-environmental appeals. Therefore, do the tourists pay any attention to those appeals. The variables and measures can be seen below in Table 2:

Table 2: Data on variables and measures required for research questions

Variables	Measures	Investigate Questions
The opinion of respondents regarding environmental messages impact on towels reuse	Rate of the impact of environmental messages on towels reuse	Have the environmental messages in the room had an impact on your behaviour to reuse towels? <i>No impact 1/Very high impact 5</i>
The opinion of respondents regarding environmental messages impact on water consumption	Rate of impact of environmental messages on water consumption	Have the environmental messages in the room had an impact on your behaviour to use less water while washing and brushing your teeth? <i>No impact 1/Very high impact 5</i>
The opinion of respondents to environmental messages impact on energy consumption	Rate of the impact of environmental messages on energy consumption	Have the environmental messages in the room had an impact on your behaviour to turn off the lights? <i>No impact 1/Very high impact 5</i>
The opinion of respondents on paying attention to environmental messages in hotel rooms	Frequency of reading environmental messages by respondents	How often do you read environmental messages at all in the hotel room during your holiday? <i>Never 1/All the time/always 5</i>

Source: Own work.

To find out more about vacation behaviour, tourists will be asked if they reuse towels, use less water and energy after they have seen the pro-environmental appeals. The offered answers to these questions will be yes/no. The measurement will be the percentage of tourists who did reuse the towels, did use less water and energy, and those who did not reuse the towels, did not use less water, and did not turn off the lights. These questions will not serve to test any hypotheses but will bring more details regarding tourists' behaviour during their stay in a hotel room. As it has already been shown that behaviour affects future performance (Ouellette & Wood, 1998), this question can also serve as an introduction to some future research. It can also help better understand the importance of tourists' behaviour to improve existing methods for reducing resource consumption in hotels. The third part of the questionnaire includes a socio-demographic characteristic. These characteristics collect data on the respondents' education, country of origin, age, gender, frequency of the last stay at a hotel, and purpose of the trip.

As the respondents were tourists from different countries, the questionnaire was written in English (Appendix 2). This way is avoided errors due to language barriers. The questionnaire was designed and pre-test with One-Click Survey. The time required to complete a survey was 3 minutes. To test whether or not designed questions were able to

give desired outcomes, the pilot survey was conducted on 10 informants. After pre-testing, there were no drastic changes other than grammatical ones. The survey lasts for three weeks, between 1th and 23rd September 2020.

3.5 Presentation of research hypotheses

To give more information regarding pro-environmental appeals' impact on tourists' behaviour, there is one question in a questionnaire which is intended to deepen information about respondents' feelings that pro-environmental appeals made to them. One of the replies to the question "Can you remember how did those messages make you feel" is the option "they did not make any impact on me". If the respondents choose this option the most, it will display the weak impact of pro-environmental appeals on respondents. Additionally, other option such as "I was on vacation and this is mine time off so the environment is not on top of my mind" and "The others are worse than me so I can go ahead doing what I want" could indicate lower environmental responsibility that respondents are showing and their self-interests when they are on holiday. This question has the option "other please state" which allows respondents to give an opinion regarding the appeals and feelings they evoked in them. The question is only a starting point and is designed to provide more information about respondents, while the numerical rating scale based questions are intended to test the three hypotheses regarding pro-environmental appeals impact on tourists' behaviour.

For testing the first three hypotheses of this study, (**H1**: Pro-environmental appeals, placed in hotel rooms, do not have an impact on tourists' behaviour to reuse towels; **H2**: Pro-environmental appeals, placed in hotel rooms, do not have an impact on tourists' behaviour to use less water while washing and brushing teeth; **H3**: Pro-environmental appeals, placed in hotel rooms, do not have an impact on tourists' behaviour to turn off the lights) focal point will be on the rate of how much pro-environmental appeals impact tourists' behaviour to reuse towels, use less water and turn off the lights. If tourists give low ratings to the impact of pro-environmental appeals on their behaviour, that is, if they choose mostly option 'no impact' or 'low impact' on the numerical rating scale, the first three hypotheses will be confirmed. The calculated mean value will be compared with the set value to test whether these values differ statistically from each other. Statistical test, one sample t-test will be used to show whether the value obtained is statistically lower than the test value; in this case, 3.5.

To test the last hypothesis (**H4**: Tourists do not pay attention to pro-environmental appeals placed in their room), Likert scale-based question is used and includes the 'I do not know' option. Based on this question, the frequency of reading pro-environmental appeals by the tourist will be measured. If tourists choose mostly option 'never' or 'rarely' on Q9, if the mean value is lower than 3.5, respondents do not read pro-environmental appeals. If this scene predominates, the hypothesis can be approved. Unlike, if the mean value is

overvalued of 3.5, respondents are reading pro-environmental appeals. This means that they are paying attention to pro-environmental appeals that are contrary to the hypothesis.

4 ANALYSIS OF DATA

4.1 Description of the sample of respondents

The total number of respondents was 209. However, 178 respondents who met the criteria were tourists who noticed pro-environmental appeals in their rooms during their last stay in a hotel. Out of those samples, 165 respondents fully completed all questions. The gender division was 43.7% male and 54.5 % female, and 1.8 % did not want to answer. There is no significant difference between genders, so this socio-demographic characteristic is presented only as information about respondents in this research.

Out of 165 respondents, 57.6% were from the age group 19-35 years old, 33.9% from the age group 36-50 years old, 7.88% were from the age of 51-65 years old, and 0.61 % were from 66+ years old group. More than half of the respondents belong to the young population. In the sample, out of 166 respondents, 39.8 % have bachelor's degrees, 27.7 % respondents are high school graduates, 24.7% have master's degrees, 4.2 % have less than high school, and 3.6 % have doctor's degrees. About 67 % of the respondents are highly educated. It is assumed that respondents who have a higher level of education also have a greater predisposition for being environmentally aware and behave in accordance with that awareness. Since age and education level may indicate environmental behaviour for personal capabilities (Stern, 2010), these characteristics limit explanatory power for environmental behaviour in general.

In terms of country of origin, respondents were from 33 different countries from which 21.8 % were from Germany, 10.3% were from Malta, and 9.7% were from Slovenia, 6.7 % from Bosnia and Herzegovina, 5.5 % Serbia, 4.2% USA and 4.2% Croatia, 3.6% Sweden and 3.6 % from Macedonia, 3.0% Austria and 3.0% Italy, 2.4% Montenegro, 2.4% Bulgaria and 2.4 % Slovakia, 1.8% India, Ukraine, Russia, Hungary, Poland, Mexico, South Africa, and Turkey have each country 1.2 % of respondents and each of this countries (Finland, Switzerland, Lithuania, Romania, Holland, Australia, Iran, England, Netherlands, Canada, China) have 0.6 % respondents. Out of all countries, 65.2% are EU countries. European citizens show great awareness of their contribution to the environment and valuing that environment (Special Eurobarometer 295, 2008).

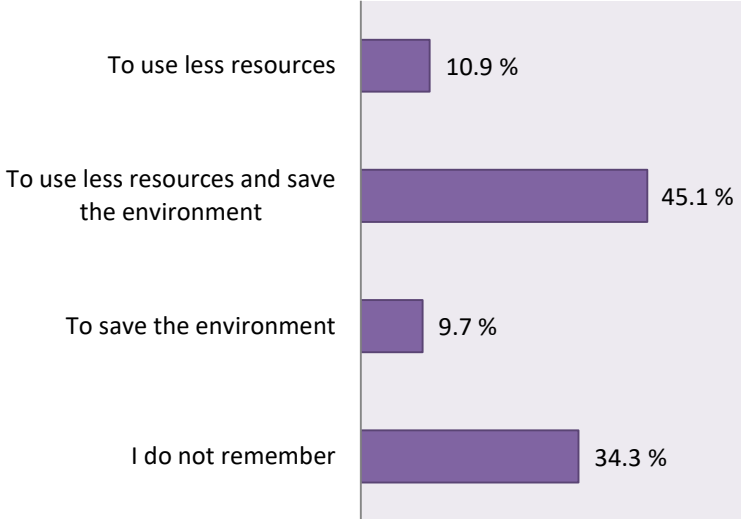
The purpose of the last travel in the hotel with pro-environmental appeals was private (leisure), 85.0% of respondents, and 15.0 % travel for the business reason, which shows that most tourists who completed the questionnaire were for leisure reasons. Since it is already showed how tourism is preferred more in hedonic context (Dolnicar, Knezevic Cvelbar & Grün, 2017) and tourists are not always responsibly behaving when are on

holiday (Dolnicar & Grün, 2008), it is assumed that a higher percentage of private tourists could explain the occurrence of insufficient responsible environmental behaviour.

When it comes to the length of the stay in a hotel, 43.1% of respondents stay 3 to 5 nights, 39.5 % of them stay only 1 to 2 nights, and 17.4 % of respondents stay more than 5 nights.

Regarding the result gained from the questionnaire, many of the respondents are aware of environmental messages and remember what those messages communicated to them. Out of 175 tourists, 45.1% of respondents chose the option “to use less resource and save the environment”, 10.9 % chose “to use fewer resources”, 9.7% “to save the environment” and 34.3% of respondents chose the option “I do not remember”, on the same question (Q2). Since the typical pro-environmental appeal is communicating with tourist in the context of explaining the meaning behind the program, i.e., in terms of using fewer resources to save the environment, the results indicate that the sample of this study was completely aware of the pro-environmental appeals and their purpose (see Figure 3).

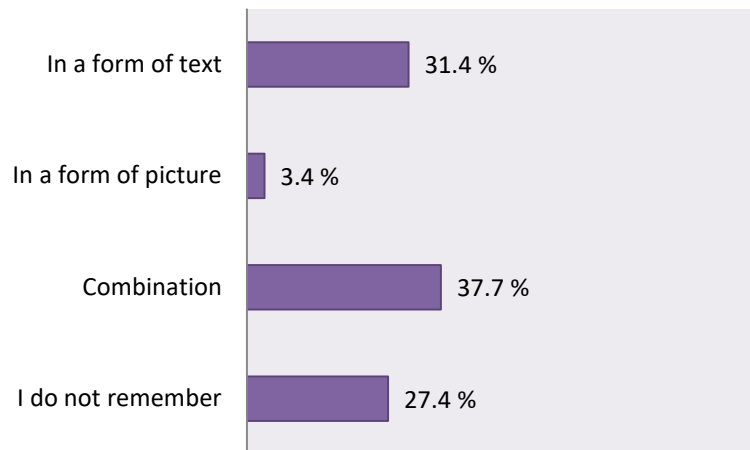
Figure 3: Replies to the communication of pro-environmental appeals



Source: Own work.

Additionally, most of the respondents, 37.7%, remembered that messages were in the form of “combination” (Q3), and on the same question, 31.4% of respondents have selected option “in a form of text”, 3.4% chose the option “ in a form of the picture” and 27.4% chose “ I do not remember”. Out of 100% of respondents, results indicate that 72.6 % of tourists are aware of which form messages were, and it is assumed that tourists were aware of the presence of the pro-environmental appeals in a hotel during their last stay. Based on data, as shown in Figure 4, most messages are combined.

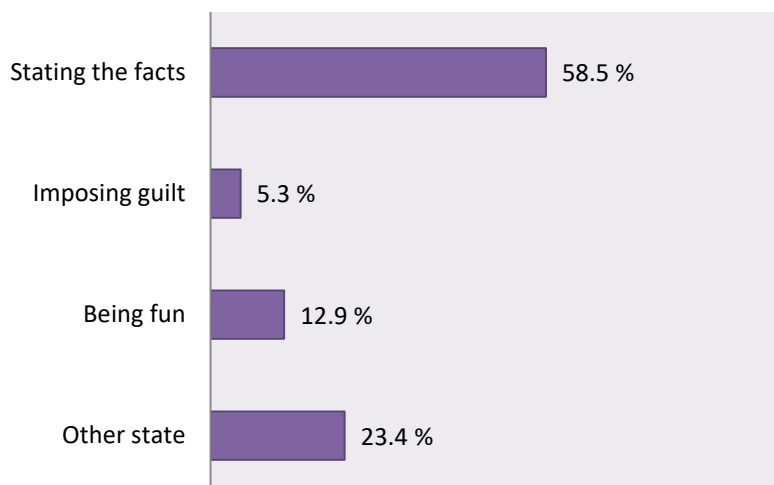
Figure 4: Replies to form of pro-environmental appeals



Source: Own work.

On the question Q4: “In what mode messages communicated to you” most of the respondents, 58.5 % chose the option “stating the fact”, 5.3% chose “imposing the guilt”, 12.9% chose “being fun,” and 23.4% chose “other please state” in which majority of the answers were “do not remember” with 13.6 % (see Appendix 3). Since 58.5% of respondents chose the option “stating the fact” (Q4), it is again confirmed that this sample of respondents is aware of pro-environmental appeals and the purpose that they carry on, as shown in Figure 5.

Figure 5: Replies to the mode of pro-environmental appeals

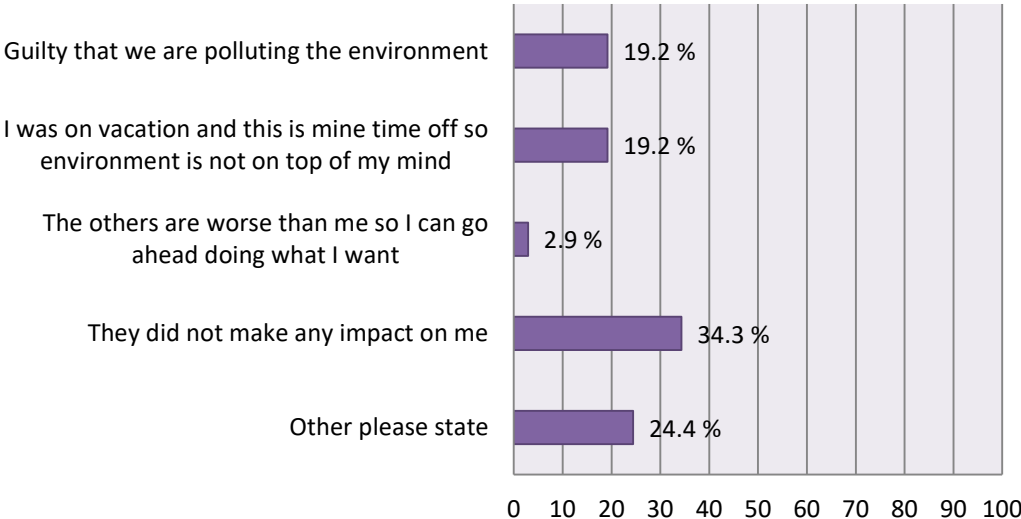


Source: Own work.

4.2 Evaluation of pro-environmental appeals impact on tourists’ behaviour

The tourists who have noticed pro-environmental appeals during their last stay in a hotel room were asked to give their opinion about feelings that those appeals evoked in them. This question serves as additional information related to the opinion of respondents about pro-environmental appeals. Out of 172 respondents, 19.2% of the respondents have answered “Guilty that we are polluting the environment”, 19.2 % “I was on vacation and this is mine time off so the environment is not on the top of my mind”, 2.9 % chose the option “The others are worse than me so I can go ahead doing what I want” and 34.3 % of respondents have answered “they did not make any impact on me” which provide respondents’ feelings that those appeals evoked when being on holiday. Accordingly, it can be said that pro-environmental appeals did not impact tourists during their stay in a hotel. Furthermore, 24.4% of respondents chose the option “other please state” (as shown in Figure 6). A small percentage (2.9%) of those respondents present themselves as someone who does not care about the environment at all.

Figure 6: Respondents’ feelings regarding environmental messages



Source: Own work.

Results indicate that 24.4 % of respondents chose the option “other please state” and gave some opinions towards the pro-environmental appeals evoked in them. Most respondents showed strong feelings when it comes to pro-environmental appeals that only explain in more detail the weak influence of appeals. Some of the respondents’ replies are listed in Table 3 below. Recorded responses to pro-environmental appeals did not cause any notable impact on tourists. This may be because tourists are environmentally aware and behave or do not behave responsibly during a holiday in a hotel. The pro-environmental appeals do not have a strong influence on their decision on how to behave. The rest of these replies can be seen in Appendix 4.

Table 3: Replies of the respondents to feelings that pro-environmental appeals evoked

Question 5	Replies to question 5
Can you remember how those messages made you feel?	“I couldn’t take it seriously because the hotel has a financial interest in saving resources”
	“no feelings”
	“no new information -> no special feelings”
	“nothing new”
	“Nothing new...i do this at home”
	“Nothing special”

Source: Own work.

This question’s results do not respond to the hypotheses about pro-environmental appeals’ impact on tourists’ behaviour. The obtained results only deepen information from tourists regarding their general feelings that pro-environmental appeals made to them. As shown in these two tables, the opinions about pro-environmental appeals are heterogeneous. Some of the respondents are environmentally aware and behave in terms of saving resources at home, as well. The consequence of this behaviour could be a habit that tourists already have, not just appeals posted in a hotel room. On the other side, a few respondents declared that appeals positively communicated to them and serve as a reminder to behave environmentally friendly during their stay in a hotel. These feelings are listed in Table 4 below:

Table 4: Replies of the respondents to feelings that pro-environmental appeals evoked

Question 5	Replies to question 5
Can you remember how those messages made you feel?	“I would have done this anyway, so it was a good reminder”
	“I was glad I could help by reusing my towel”
	“I can easily do my part”
	“the signs encouraged me in my behaviour”
	“They were reasonable and I followed them”

Source: Own work.

The one sample *t*-test is used to test three hypotheses regarding pro-environmental appeals' impact on tourists' behaviour and test the significance of the means values for all three hypotheses. This test will determine whether the test value (hypothetical average) differs from other variables' averages. One sample *t*-test is calculated, where the averages of test values were compared with all the averages and determined whether it differs statistically significantly from the test values.

4.2.1 Pro-environmental appeals impact on tourists' behaviour to reuse towels

As can be seen from the literature review in previous chapters, one of the crucial ways of saving energy and water is towel reuse done by tourists. This eco-friendly activity is essential for hotel participants since the environment can be preserved in this way. Hotel participants face the problem when the majority of tourists are not reusing towels. It is a consequence of the fact that guests are using more towels and water when staying in a hotel rather than at home (Han, Lee & Kim, 2018). Therefore, hotels need to improve environmental management to make more tourists environmentally aware and thus contribute to the reuse of towels. One way to meet this need is to communicate with guests through individual pro-environmental appeals in the rooms. To test if pro-environmental appeals had an impact on tourists' behaviour to reuse towels on the sample of tourists in this study, the question and test showed below were used.

The first hypothesis was tested by checking whether the actual average was statistically significantly lower than the test one, which was determined at the level of 3.5. If it is statistically significant, the hypothesis would be confirmed. Table 5 shows sample statistics and information about the mean value and the standard deviation.

Table 5: One sample statistics for the impact of pro-environmental appeals on tourists' behaviour to reuse towels

Question 6	Mean value	Std. Deviation	Std. Error Mean
Have the environmental messages in the room had an impact on your behaviour to reuse towels?	2.46	1.355	.105

Source: Own work.

Table 5 of descriptive statistics shows that the mean value is 2.46. Further displays data on standard deviation, which is 1.355 and a standard error mean .105. Data regarding the standard deviation shows the extent to which value differs from the mean (Saunders, Lewis & Thornhill, 2009).

The results indicate that the mean value is significantly different from the test value determined at the level of 3.5. The results show “no impact” or “low impact” that pro-

environmental appeals had on tourists' behaviour to reuse towels. The mean value of 2.46 is significantly lower than the test value of 3.5.

Table 6: The impact of pro-environmental appeals on tourists' behaviour to reuse towels

Question 6	Test value=3.5		
	t	Sig. (2-tailed)	Mean Difference
Have the environmental messages in the room had an impact on your behaviour to reuse towels?	-9.855	.000	-1.039

Source: Own work.

The probability (p-value) of the test result needs to be compared with the level of significance to accept or reject the hypothesis. P-value gives information on how very confident we can be that differences between the test value and other averages exist in the used sample. It tells whether the differences from the sample to the population can be generalized. Usually, the level of significance is 0.05, meaning that if the p-value is lower than this level, the hypothesis can be accepted. Otherwise, the same hypothesis is not accepted (Saunders, Lewis & Thornhill, 2009).

As shown in Table 6 of this study, the p-value is 0.000 below the level of significance. That means that the test average is statistically significantly different from the actual one. The actual average of 2.46 is lower than the test one of 3.5. Thus, pro-environmental appeals do not impact tourists' behaviour to reuse towels. At the level of risk of 5%, there are statistically significant differences. Consequently, there is a 5 % or less difference in the sample by chance. Based on this empirical result, the first hypothesis (**H1**: Pro-environmental appeals, placed in hotel rooms, do not have an impact on tourists' behaviour to reuse towels) can be accepted. The level of the impact of pro-environmental appeals chosen by respondents is lower than the test value. The impact of pro-environmental appeals can be stated as statistically significantly different from the test value. It can be assumed that pro-environmental appeals have no impact on tourists' behaviour to reuse towels, and therefore the first hypothesis is confirmed.

4.2.2 Pro-environmental appeals impact on tourists' behaviour to use less water

The hotel participants encounter a similar problem, like the reuse of towels when it comes to water consumption. Considering that water is one of the most important resources for managing a hotel on the one hand. On the other hand, it is assumed that tourists do not have a habit of using less water during vacation (Han, Lee & Kim, 2018); saving water is another hotel activity that would contribute to the realization of their intention to preserve

the environment. One way to reduce water consumption in hotel rooms is to place pro-environmental appeals to inform guests to use less water while showering and brushing their teeth. One sample t-test is used to test if the pro-environmental appeals impacted tourists' behaviour to use less water while washing and brushing teeth on this sample of tourists.

The second hypothesis was also tested by checking whether the actual average was statistically significantly lower than the test one, which was determined at the level of 3.5. If it is statistically significant, the hypothesis would be confirmed. Table 7 shows sample statistics and information about the mean value and the standard deviation.

Table 7: One sample statistics for the impact of pro-environmental appeals on tourists' behaviour to use less water

Question 7	Mean value	Std. Deviation	Std. Error Mean
Have the environmental messages in the room had an impact on your behaviour to use less water while washing and brushing your teeth?	2.23	1.285	.099

Source: Own work.

Descriptive statistics (as shown in Table 7) show that the mean value is 2.23. Further shows data on standard deviation, which is 1.285. The standard error means it is .099. Data regarding the standard deviation shows the extent to which value differs from the mean (Saunders, Lewis & Thornhill, 2009).

The results illustrate that the mean value is significantly different from the test value determined at the level of 3.5. The results show that pro-environmental appeals had “no impact” or “low impact” on tourists' behaviour to use less water. The mean value of 2.23 is significantly lower than the test value of 3.5.

Table 8: The impact of pro-environmental appeals on tourists' behaviour to use less water

Question 7	Test value = 3.5		
	t	Sig. (2-tailed)	Mean Difference
Have the environmental messages in the room had an impact on your behaviour to use less water while washing and brushing your teeth?	-12.741	.000	-1.266

Source: Own work.

The p-value is below 0.05 ($p=0.000$), which means that the test average is statistically significantly different from the actual one, as shown in Table 8. The actual value of 2.23 is lower than the test one of 3.5. Thus, the pro-environmental appeals do not impact tourists' behaviour to use less water while washing and brushing the teeth. At the level of risk of 5%, there are statistically significant differences. Consequently, there is a 5 % or less difference in the sample by chance. Based on this empirical result, the second hypothesis (**H2**: Pro-environmental appeals, placed in hotel rooms, do not have an impact on tourists' behaviour to use less water while washing and brushing teeth) can be accepted. The level of the impact of pro-environmental appeals is lower than the test value. The impact of pro-environmental appeals can be stated as statistically significantly different from the test value. It is assumed that pro-environmental appeals have no impact on tourists' behaviour to use less water, which approves the second hypothesis.

4.2.3 Pro-environmental appeals impact on tourists' behaviour to turn off the lights

Saving energy is also an important part of the environmental activities insured by a hotel and performed by tourists. To achieve this, hotels are also posting pro-environmental appeals to inform guests about the importance of saving energy and its contribution. As can be seen from the previous research, it appears that this visual stimulation does not communicate the desired messages to tourists. One sample t-test is used to test the third hypothesis as well.

The test value of the third hypothesis is determined at the level of 3.5. To test the third hypothesis, the actual average would be checked to see if the mean value is statistically significantly lower than 3.5. If it is statistically significantly different, the hypothesis would be confirmed. Sample statistics data about mean value are shown in table 9 below:

Table 9: One sample statistics for the impact of pro-environmental appeals on tourists' behaviour to turn off the lights

Question 8	Mean value	Std. Deviation	Std. Error Mean
Have the environmental messages in the room had an impact on your behaviour to turn off the lights?	2.29	1.361	.106

Source: Own work.

This question's mean value is 2.29 with a standard deviation of 1.361, and a standard error mean of 0.106, as descriptive statistics show in Table 9. The standard deviation shows the extent to which value differs from the mean (Saunders, Lewis & Thornhill, 2009).

This study shows that the mean value of 2.29 is significantly different from the test value determined at 3.5. According to the results, pro-environmental appeals had "no impact" or

“low impact” on tourists’ behaviour to switch off the lights. The mean value of 2.29 is significantly lower than the test value of 3.5.

Table 10: The impact of pro-environmental appeals on tourists’ behaviour to turn off the lights

Question 8	Test value=3.5		
	t	Sig. (2-tailed)	Mean Difference
Have the environmental messages in the room had an impact on your behaviour to turn off the lights when you left the room?	-11.360	.000	-1.207

Source: Own work.

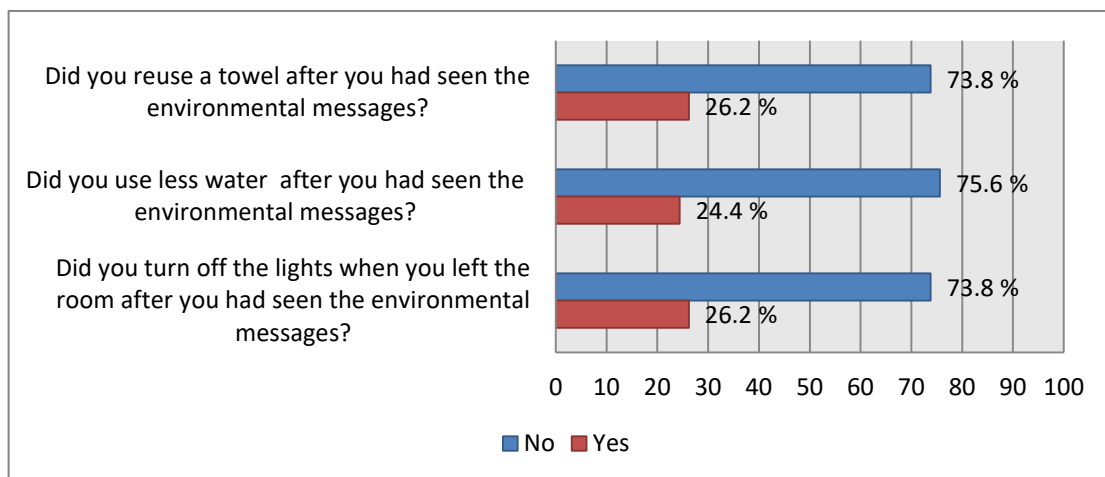
Table 10 displays that the p-value is also below 0.05 ($p=0.000$), which means that the test average is statistically significantly different from the actual one. The actual average of 2.29 is lower than the test one of 3.5. Thus, the pro-environmental appeals do not impact tourists’ behaviour to turn off the lights. At the level of risk of 5%, there are statistically significant differences. Consequently, there is a 5 % or less difference in the sample by chance. Based on this empirical result, the third hypothesis (**H3**: Pro-environmental appeals, placed in hotel rooms, do not have an impact on tourists’ behaviour to turn off the lights) can be accepted. The level of the impact of pro-environmental appeals is lower than the test value. The impact of pro-environmental appeals can be stated as statistically significantly different from the test value. It may be that pro-environmental appeals have no impact on tourists’ behaviour to turn off the lights.

The mean values of all three hypotheses are between 2.23 and 2.46. Based on the results gained from this sample of tourists, it is proved that tourists gave their low rating to pro-environmental appeals impact. Since most respondents chose the option “no impact” and “low impact,” it is evident that these appeals do not impact this sample of tourists at hand. The reason for the low rating of pro-environmental appeals may be the habits that tourists already have. Low rating to these appeals does not mean that respondents do not save water, do not save electricity, and do not use the towel again, nor that is they do not behave responsibly during the holidays or even do not carry the habit from home. It only means that pro-environmental appeals have not contributed to it. Therefore, it can be said that pro-environmental appeals are not effective enough to influence tourists and their behaviour, strengthening the findings of Dolnicar, Knezevic Cvelbar & Grün (2016) confirming that pro-environmental appeals were not effective enough to trigger pro-environmental behaviour. According to the present research results, where the weak impact of pro-environmental appeals on tourists’ behaviour, which is otherwise hard to change (Mair &

Bergin-Seers, 2010), is displayed, it can be said that appeals are not a good way of communication by hotels.

Additionally, to better understand tourists' behaviour on vacation, respondents were asked yes/no questions. This was designed in part to seek information about their behaviour regarding towel reuse, saving water and energy. Out of 168 respondents, most of them answered with "no" on all three questions (Q10, Q11, and Q12). The percentage of all three questions to behaviour was around 75 % (see Figure 7). The obtained results show that tourists are not reusing towels, not using less water, and not turning off the lights during their stay in a hotel. It may be the case that guests do not behave responsibly during vacation. This study cannot conclude the previous assumption considering that the results obtained are not statistically significant since those questions did not fall under research and testing by statistical tests. These questions aim only to give a piece of additional information about tourists' profile and their behaviour. They are not intended for any testing of the hypothesis since the purpose of this research is not to examine tourists who are behaving responsibly when it comes to the main eco-activities. The purpose is to examine whether pro-environmental appeals impact tourists' behaviour as a program that hotels provide to preserve the environment. Since it is hard to change tourists' behaviour (Mair & Bergin-Seers, 2010) as the previous findings stress, and as past behaviour can affect future intention/performance of tourists (Ouellette & Wood, 1998), the results of these questions can be useful for further research examining deeper reasons why tourists did not use fewer towels, less water and save electricity.

Figure 7: Past behaviour by tourists



Source: Own work.

4.3 Evaluation of tourists' attention to pro-environmental appeals

The tested hypotheses' results in previous parts illustrate the weak impact of pro-environmental appeals to tourists' behaviour regarding some environmental activities as it was assumed before testing hypotheses. This study tried to show a possible cause for the lack of impact of these appeals. One of the reasons may be that tourists are not paying attention to these appeals during their stay in a hotel room due to tourism being hedonic and tourists being more focused on self-interest and vacation than paying attention (reading stickers) appeals.

In the designed questionnaire, there was a question, "How often do you read environmental messages at all in the hotel room during your holiday?". It was designed as a variable to examine how frequently (ranging from items as to "never" to "all the time/always") respondents read pro-environmental appeals in the room. The answers on the five-point Likert scale were provided, and if tourists give the lower number, if they chose more "never" or "rarely" the hypothesis would be confirmed.

Table 11 illustrates descriptive statistics and shows that the mean value for this question is 3.08. The same table displays data regarding the standard deviation, which is 1.311, and a standard error of 0.102.

Table 11: One sample statistics for the frequency of reading pro-environmental appeals

Question 9	Mean value	Std. Deviation	Std. Error Mean
How often do you read environmental messages at all in the hotel room during your holiday?	3.08	1.311	.102

Source: Own work.

One sample t-test is used to test the fourth hypothesis of this thesis. In that way, it will be examined different values to see if the mean value is lower than the test one, which was determined at the level of 3.5. The results indicate that the mean value of 3.08 is significantly different from the test value determined at the level of 3.5. The results displayed a lower degree of agreement than the average one. Consequently, most of the respondents chose the option "never" and "rarely". The mean value of 3.08 is lower than the test value of 3.5 in this thesis.

Table 12: The frequency of reading the pro-environmental appeals

Question 9	Test value = 3.5		
	t	Sig. (2-tailed)	Mean Difference
How often do you read environmental messages at all in the hotel room during your holiday?	-4.111	.000	-.421

Source: Own work.

As can be seen in Table 12, the calculated p-value is below 0.05 ($p=0.000$), which means that the test average is statistically significantly different from the actual one. The actual average of 3.08 is lower than the test one of 3.5. Tourists are not reading pro-environmental appeals during their stay in a hotel room. At the level of risk of 5%, statistically significant differences exist between the test value and the variable that occurs. Based on this empirical result, the fourth hypothesis (**H4**: Tourists do not pay attention to pro-environmental appeals placed in their room) is confirmed. The frequency of reading pro-environmental appeals is showed to be lower than the test value of 3.5. The attention to pro-environmental appeals in a hotel room is statistically significantly different from the actual value. It is assumed that tourists do not read/ not pay attention to pro-environmental appeals during their stay in a hotel room. Obtained results from this sample of tourists confirmed the fourth hypothesis. This is not difficult to explain, given that tourists gave a low rating on the impact of the appeal on their behaviour. The results that confirm that they do not pay attention to the appeals may be one reason for the low rating of the impact of appeals on their behaviour. If the pro-environmental appeals are not being read, its purpose will not contribute to a positive outcome. In this case, a positive effect would mean that pro-environmental appeals affect tourists' behaviour in ecological activities.

Finally, to summarize previously obtained empirical data, the first three hypotheses about pro-environmental appeals' impact on tourists' behaviour to engage in environmental activities were confirmed. The fourth hypothesis about the expected reason behind that weak influence was confirmed. Results showed statistical evidence to support all fourth hypotheses. Within all hypotheses, there were statistical differences between the average values. The data obtained from this sample of tourists shows a weak impact of pro-environmental appeals and insufficient attention to those appeals.

5 DISCUSSIONS

5.1 Analysis of pro-environmental appeals impact on tourists' behaviour

Positive aspects and the growing trend of tourism have led to what has today become a major topic among environmentalists, its sustainable development. However, tourism, which is key to development, also leaves negative consequences on the environment. These are sometimes large-scale once, bearing in mind that tourism affects the whole of humanity and not only certain destinations. As already mentioned in the literature review, hotels are a huge consumer of resources and greatly impact the environment. Therefore, hotels have decided to implement certain environmental programs either on their own or due to government pressure. The ultimate goal of these programs is to contribute to preserving the environment and lessen the use of water and energy and promote the environmental awareness of the hotels themselves. In addition to installing environmental equipment such as energy-efficient lighting, hotels post different pro-environmental appeals of water and energy conservation in their rooms. It may be one of the key solutions to involve customers in their program of environmental protection. This practice to include customers in their programs is already well known in most countries.

The greatest contributors to the conservation of resources can be consumers themselves. Thus, consumer's involvement in the before-mentioned programs is of great importance for all hotels. However, it may prove problematic. On the one hand, tourists' behaviour can be difficult to influence. On the other hand, it can be influenced by various elements that hotels are unable to change. Additionally, the act of placing pro-environmental appeals can be unproductive to affect the already questionable behaviour of tourists during the holidays. The fact is that most tourists are already aware of the negative impacts they can cause on the environment and of the importance of the activities that hotels undertake to reduce that negative impact. It is challenging to influence tourists to take measures and preserve the environment independently despite being aware of its importance.

The research at hand has shown that most of the respondents are aware of the environmental appeals placed in hotel rooms and their importance. They are aware of both their appearance and the message they convey. The majority of the respondents were from EU countries, where environmental awareness is high (Special Eurobarometer 295, 2008). Respondents mostly belong to the younger population and are highly educated. A good majority of respondents answered that they travelled to a hotel with pro-environmental appeals for a private reason and stayed 3 to 5 nights. When it comes to the feelings that these pro-environmental appeals caused in them, the majority answered that they had no impact on them. Additionally, many respondents find that pro-environmental appeals are a good reminder of responsible behaviour towards the environment.

When it comes to hypotheses related to the analysis of this thesis's aim, the results show that these pro-environmental appeals do not strongly impact this sample's behaviour to reuse towels, to use less water, and to turn off the lights. It has been proven that most respondents gave low ratings to the impact that the pro-environmental appeals had on their behaviour. The mean value of all three hypotheses was approximately 2.4, which is less than test one of 3.5. The thesis results at hand are partially identical to the findings of Dolnicar, Knezevic Cvelbar & Grün (2016), confirming that pro-environmental appeals were not effective enough to trigger pro-environmental behaviour. Although most respondents are educated and come from EU countries where environmental awareness can be said to be at a higher level, the results of this study illustrate that environmental appeals had no impact (or had little or no impact) on tourists' behaviour in the desired direction. This phenomenon does not mean that some of the respondents do not save water, electricity, or reuse the towels, or behave responsibly during the holidays, or even not carry that habit from home. It may, however, be that pro-environmental appeals have not contributed to it. Therefore, it can be said that pro-environmental appeals, as one of the programs offered by hotels to lessen resources consumption and thus protect the environment, are not effective enough to influence tourists and their behaviour. Speaking about the impact of pro-environmental appeals for towel reuse, in particular, the results of this research do not follow the analysis of Goldstein, Cialini & Griskevicius (2008), which have shown how descriptive messages in hotel rooms yielded significantly higher towel reuse. Previous research has shown that tourism is hedonic, and tourists behave to fulfill their interests and do not behave responsibly during vacation (Dolnicar & Grün, 2008). Based on this research, a link to the results of this study can be established. Most of the respondents stayed in a hotel for private reasons and belonged to a younger population. Therefore, the reason behind the argument that pro-environmental appeals do not affect tourists' behaviour may be the nature of tourism and the fact that more youthful tourists are more focused on themselves and their pleasures than responsible behaviour in a hotel.

The development of new technologies has led to the development of new tourism trends, also witnessed by hotels. It is a common occurrence that hotels have cards that also unlock the room and turn on lights and sockets. This further facilitates and reduces the concern of tourists and changes the habit of turning off the lights in hotels, i.e., new cards have replaced the traditional turning on and off lights. One explanation for the low rating of the impact of pro-environmental messages on turning off the lights when leaving the room may be related to the change in habits we face in today's modern times.

In this study, the survey results have also shown that most respondents answered negatively to the question of whether they reused towels, used less water, and turned off the lights (around 75 % answered "no"). Although this question has not been tested statistically, it can be concluded that most tourists do not behave responsibly during their stay at a hotel. The reason for this negative response may be the nature of tourism as hedonistic. Bearing in mind the fact that behaviour can influence future behavioural

intention (Ouellette & Wood, 1998) of tourists, attention should be paid to approaching tourists to change their behaviour in the future. As shown in this study, previous methods of hotels have not yielded the desired results.

Based on the fourth hypothesis's analysed results, it is clear that tourists are not paying attention to pro-environmental appeals during their stay in a hotel room. The mean value was lower than the test one of 3.5 (mean value was 3.08). As no research so far has shown that people do or do not read messages, the results of this hypothesis cannot be compared with the existing theory. It can only be assumed that not paying attention to the pro-environmental appeals is one reason for their inefficiency. From this research, it can also be learned that environmental appeals are not sufficiently visible to tourists. If they do not pay attention to them, they probably are not visible enough, not attractive, or not even positioned in the right place. Although the results cannot be generalized to the entire population, based on this sample, attention should be paid to the visual appearance of the appeals in the future.

As it has been proven that this sample of tourists is not paying attention to the pro-environmental appeals in hotel rooms and the same appeals placed in the rooms do not affect their behaviour, it can be concluded that the pro-environmental appeals do not convey the desired message to tourists. Simply, they are not efficient enough to cause expected outcomes. Perhaps in the future, more attention should be paid to the improvement of these appeals. One proposal for engaging guests to behave eco-friendly is to substitute the existing environmental appeals with the vouchers. Hotels can go beyond the usual forms of protecting the environment and offer vouchers to guests if they reuse towels, use less water, and save energy. In this way, guests would be encouraged to reduce the consumption of resources. It is difficult to change tourists' vacation behaviour by leaving them to do so entirely on their own. Another approach could be offering a discount on the next vacation if it is noted that a particular guest has used the towel multiple times. Hotels must understand the importance that the behaviour of tourists has on saving resources and protecting the environment. In this regard, it is necessary to reward/stimulate tourists to gain favourable results that would be to mutual satisfaction. The third option could be following the trend of digitalization. Given that the digital age has become a priority for all people and therefore, tourists, hotels should focus their efforts on reducing resource consumption through digital solutions.

5.2 Main contribution of the thesis

The study at hand deepens the existing research on the impact of pro-environmental appeals on tourist behaviour. Overall, the research describes the importance of tourism for the environment and individuals' behaviour as significant factors for sustainable tourism development. It can be useful for the environment because it shows the importance of its protection and the connection between hotels as large consumers of resources and guests

who contribute to that consumption. On the other hand, the same guests are essential for reducing the consumption of resources that hotels face. The research also shows the environmental management practices that are increasingly present in hotels and their efforts to benefit the environment.

By showing that pro-environmental appeals do not have a strong impact on changing tourist behaviour, this research contributes to hotel participants understanding today's tourists better and implementing other activities that lead to a final reduction in resource consumption. Pro-environmental appeals did not impact tourists' behaviour to reuse towels, reduce water, and energy consumption due to not paying attention to the same appeals as shown in this research. In this regard, the study showed one of the possible reasons for their inefficiency and paved the way for further investigations and discovering the real reasons for not reading appeals, therefore not paying attention to pro-environmental appeals. Today's tourists' habits and behaviour are not the same as before, resulting from technology development and digitalization on the one hand. On the other hand, today's behaviour is guided by self-interests during the holidays. Standard pro-environmental appeals are not strong enough to change that self-oriented behaviour. As shown in the literature review of this research, it is very demanding and difficult to find a trigger to influence tourists' behaviour and guide that behaviour according to the desired results. There is a need for different motivators provided by the hotel to change tourists' behaviour. With this in mind and the results of this research, more attention should be paid to tourists' behaviour and finding efficient triggers to change behaviour through various stimuli or incentives given to the tourists. It is not enough to leave tourists to make changes alone and decide to protect the environment during holidays; the hotel needs additional, motivating measures. Tourists are partially familiar with the hotels' attempt through appeals to protect the environment but are not motivated to change their behaviour. Appeals are not interesting or encouraging enough to trigger action. The thesis showed that situation and confirmed how current measures do not significantly affect today's tourists. Therefore, the thesis contributed to better understanding tourists' behaviour and raising the need for more in-depth research into the problems behind standard pro-environmental appeals. Furthermore, all hotel participants need to consider the opinions of tourists who rated pro-environmental appeals as insufficient. That way could be created other, better solutions for reducing resource consumption in hotels.

5.3 Recommendations for further research, limitations of the research

The current thesis has a few limitations. Firstly, data were gathered using a survey distributed to different tourist groups via the internet, mainly on Facebook. Therefore, respondents could be anyone willing to fill out the questionnaire, regardless of whether they were tourists who visited a hotel with pro-environmental appeals. The study did not control whether respondents were in a hotel with pro-environmental appeals. More reliable

findings could be obtained by questioning tourists who are known to have been in a particular hotel with environmental appeals.

Although the sample size of 165 tourists is adequate, a larger sample could guarantee the results' greater accuracy. Thus, this sample is not generalizable to the total population of tourists. Additionally, the results of the questionnaire showed that most of the respondents were young people. The results cannot be generalized as younger people are more self-oriented and enjoy themselves when they are on vacation. Their vacation is more dedicated to sightseeing and exploring new destinations rather than staying in hotel rooms. Therefore, there is a need for future research, taking a larger sample of tourists and older respondents to obtain credible results as possible.

The thesis at hand is based on quantitative research and used mainly closed questions to test its hypotheses. In future research, it would be good to undertake qualitative research involving more open-ended questions. That way, the real reason why pro-environmental appeals did not have any impact on tourists' behaviour to save resources could be investigated. This thesis's goal was to examine tourists' opinion on the effect of pro-environmental appeals on their behaviour and an indirectly possible reason for the non-efficiency of appeals by estimating the frequency of reading appeals. The research did not ask directly for motives why tourists responded the way they did and gave low ratings to the pro-environmental appeals. Therefore, this topic could be interesting for future research/master's thesis.

In this study, the three questions regarding behaviour were excluded from testing the hypotheses. The reason for this exclusion is the fact that tourists could misinterpret these questions. The answer "No" does not necessarily mean no reuse of towels, saving water and energy otherwise. The consequence of a negative response may be that the respondents did not reuse towels, did not use less water, and did not turn off the lights after noticing the appeals and not that they did not perform these activities at all. Further study is needed to understand the behaviour of respondents better when it comes to responsible action. It would be useful to statistically prove whether tourists behaved responsibly or not during their last stay in a hotel. That finding could help understand tourists' behaviour and whether their behaviour is the cause of certain hotels' inefficiency. If their behaviour is not the reason for the appeals' ineffectiveness, then the appeals do not fulfil their purpose well.

CONCLUSION

The research at hand aimed to analyse the impact of pro-environmental appeals on tourists' behaviour to reuse towels, to use less water during washing and brushing teeth, and to turn off the lights. In addition to the before-mentioned goal, this research aimed to analyse the attention tourists paid to those appeals.

To obtain the necessary data, the research included a structured online questionnaire distributed via the Internet. To analyse questionnaire data and to test the hypotheses, a statistical *t*-test was run in the program. Two hundred nine respondents completed the questionnaire. However, 178 of which met the criteria were tourists who have noticed pro-environmental appeals in their rooms during their last stay in a hotel. Out of those samples, fully completed were 165 questionnaires.

The first three hypotheses concerning the impact of pro-environmental appeals on tourists' behaviour to reuse towels (H1), to reduce water consumption during showering and brushing teeth (H2), and to turn off the lights (H3) have been proven. The results indicate a significant lack of impact of the pro-environmental appeals on tourists' behaviour. It may be due to the inadequacy of these appeals given that this study has shown that most respondents are environmentally aware and aware of the purpose of these messages. Furthermore, it was possible to prove that tourists do not pay attention to pro-environmental appeals placed in their rooms (H4). The results illustrate that tourists are not reading pro-environmental appeals during their stay in a hotel room. Therefore, this hypothesis was confirmed.

As it has been proven that this sample of tourists does not pay attention to pro-environmental appeals in hotel rooms on the one hand and that they gave low ratings to the impact of the pro-environmental appeal on their behaviour, on the other hand, it can be concluded that these appeals are not effective enough to communicate the desired message with the tourists. The obtained empirical findings of this research have concluded that hotel efforts to reduce resources were often unsuccessful. Hotels' efforts in the process of preserving the environment are certainly to be praised. Nonetheless, further options - some of which have already been mentioned in the summary of findings - should be considered. Hotels must understand the importance that the behaviour of tourists has on saving resources and protecting the environment. In this regard, it is necessary to reward/stimulate tourists to gain favourable results that would be to mutual satisfaction.

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APPENDICES

Appendix 1: Summary in Slovene language (Povzetek)

ANALIZA VPLIVA OKOLJSKIH OZNAČB NA VEDENJE TURISTOV

Okoljske označbe v hotelskih sobah so eden izmed pomembnejših programov zmanjšanja potrošnje virov v hotelih in s tem ohranjanja okolja ter krepitev trajnostnega turizma. Zato je bistveno, da se razišče vpliv okoljskih označb na vedenje turistov. Turisti so namreč veliki potrošniki virov in tako bi njihovo vključevanje v programe doprineslo k lažji uresničitvi ciljev.

Namen te raziskave je, da preuči vpliv okoljskih označb na vedenje turistov, da ponovno uporabijo brisačo, zmanjšajo porabo vode in elektrike. Z namenom izpolnitve ciljev je bila uporabljena kvantitativna analiza, znotraj le-te pa strukturirani vprašalnik. Raziskava je bila zasnovana na štirih hipotezah in temelji na vprašalniku, ki je bil zasnovan na predhodni literaturi. Za testiranje hipotez je bil uporabljen t-test za en vzorec s pomočjo programa SPSS.

Vprašalnik je v celoti izpolnilo 209 anketirancev, od tega jih je 178 ustrezalo merilu, torej opazilo okoljske označbe med njihovim zadnjim bivanjem v hotelu. Znotraj tega merila jih je 165 izpolnilo cel vprašalnik. Prve tri hipoteze, ki se nanašajo na vpliv okoljskih označb na preteklo vedenje turistov, da ponovno uporabijo brisačo (H1), da zmanjšajo porabo vode med tuširanjem in pranjem zob (H2) in da ugašajo luči med zapuščanjem hotelske sobe (H3), so bile dokazane, saj so rezultati pokazali, da je večina turistov slabo ocenila vpliv teh označb oziroma potrdila, da okoljske označbe nimajo vpliva na njihovo vedenje. Četrta hipoteza, ki pravi, da turisti med bivanjem v hotelskih sobah niso pozorni na okoljska sporočila, je bila potrjena. Glede na dokazano, da po eni strani ta vzorec turistov ne bere okoljske označbe v hotelskih sobah, po drugi strani pa so ti isti turisti slabo ocenili vpliv okoljskih označb na njihovo vedenje, lahko zaključimo, da te označbe niso dovolj učinkovite in turistom ne posredujejo željenega sporočila.

Pridobljeni empirijski rezultati te raziskave so pripeljali do spoznanja, da so določeni poskusi hotela, da zmanjša porabo virov, neuspešni. Sigurno je potrebno pohvaliti delovanje hotelov pri procesu ohranjanja okolja, ampak bi bilo potrebno razmisliti še o drugih možnostih izboljšanja teh dejavnosti hotela. Ena izmed rešitev bi lahko bila odobritev vaučerjev gostom hotela, ki bi bili pripravljene ponovno uporabiti brisače ali zmanjšati porabo vode in elektrike. Na takšen način bi vzpodbudili goste k manjši porabi virov. Način vedenja turistov med dopusti je težko spremeniti. Ne more se jih prepustiti samo njihovi lastni presoji brez kakršnega koli vpliva hotelov. Drugačen pristop bi lahko bila ponudba popusta ob naslednjem obisku, če bi bilo dovolj razvidno, da je gost ponovno uporabil brisačo. V bodoče bi se hoteli morali bolj zavedati vpliva na turiste, ki lahko pripomorejo k ohranitvi virov in zaščiti okolja. Turiste bi bilo potrebno nagraditi / spodbuditi, da bi skupaj s hotelirstvom v obojestranskem zadovoljstvu lahko dosegli ugodne rezultate pri varovanju okolja.

Appendix 2: Example of the questionnaire in English

Questionnaire about Analysis of pro-environmental appeals impact on tourists' behaviour

Dear Participants,

This questionnaire is part of my Master's thesis at the School of Economics and Business, University of Ljubljana, Slovenia. I am glad to invite you to take part in a research topic which studies the impact of environmental messages in the hotel rooms on tourists' behaviour.

Collected data will be used to analyse the impact of pro-environmental appeals on tourists' behaviour. Please complete the questionnaire honestly and to the best of your ability. This should only take 2 to 3 minutes and is entirely anonymous. If you have any questions or interests regarding this topic, please contact me at: sladjana.savic1@yahoo.com.

I appreciate your time. Thank you!

1. Remember the last time you have been at the hotel. Have you noticed environmental messages which inform you about environmental protection and request a change in behaviour to reuse towel, use less water, or save energy?

- a) Yes, please continue.
- b) No. Thanks for the collaboration.

2. Can you remember what did those messages communicated to you:

- a) To use fewer resources
- b) To use fewer resources and save the environment
- c) To save the environment
- d) I do not remember

3. Was the message that you can remember:

- a) In a form of text
- b) In a form of a picture
- c) Combination
- d) I do not remember

4. In what mode message communicated:

- a) Stating the facts
- b) Imposing guilt
- c) Being fun

d) Other state: _____

5. Can you remember how those messages made you feel:

- a) Guilty that we are polluting the environment
- b) I was on vacation and this is mine time off so the environment is not on top of my mind
- c) The others are worse than me so I can go ahead doing what I want
- d) They did not make any impact on me
- e) Other please state

Remembering your last stay at a hotel with environmental messages in the room, please rate the option that most closely matches your opinion to each of the questions below: (1 means “no impact”, 5 means “very high impact”)

6. Have the environmental messages in the room had an impact on your behaviour to reuse towels?

No impact	Low impact	Some impact	Fairly high impact	Very high impact	I don't know
1	2	3	4	5	

7. Have the environmental messages in the room had an impact on your behaviour to use less water while washing and brushing your teeth?

No impact	Low impact	Some impact	Fairly high impact	Very high impact	I don't know
1	2	3	4	5	

8. Have the environmental messages in the room had an impact on your behaviour to turn off the lights?

No impact	Low impact	Some impact	Fairly high impact	Very high impact	I don't know
1	2	3	4	5	

9. How often do you read environmental messages at all during your holiday?

Never	Rarely	Sometimes	Very often	All the time/always	I don't know
1	2	3	4	5	

10. Did you reuse a towel after you had seen the environmental messages?

a) Yes

b) No

11. Did you use less water after you had seen the environmental messages?

a) Yes

b) No

12. Did you turn off the lights when you left the room after you had seen the environmental messages?

a) Yes

b) No

13. How long was your last stay at a hotel?

a) Only 1 to two nights

b) 3 to 5 nights

c) More than 5 nights

14. Your gender:

a) Male

b) Female

c) I do not want to answer

15. Your Age:

a) 19-35 years old

b) 36-50 years old

c) 51-65 years old

d) 66 +

16. What is your highest level of formal education?

a) Less than high school

b) High school graduate

c) Bachelor's degree

d) Master's degree

e) Doctor's degree

17. Please state your country of origin: _____

18. Your purpose for the last trip to a hotel with environmental messages?

a) Private (leisure)

b) Business

Thank you very much!

Appendix 3: Respondents replies to question: “in what mode messages communicated to you”

Other state

Question 4: “In what mode message communicated”	Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	7	3,3	3,3	3,3
-1,	162	77,5	77,5	80,9
-2,	3	1,4	1,4	82,3
-3,	1	,5	,5	82,8
As advice- recommendation	1	,5	,5	83,3
being boring	1	,5	,5	83,3
can\`t remember	2	1,0	1,0	84,2
Can\`t remember	1	,5	,5	84,7
Don\`t remember	2	1,0	1,0	85,6
Dont know	3	1,4	1,4	87,1
dont remember	1	,5	,5	87,6
Dont remember	1	,5	,5	88,0
General	1	,5	,5	88,5
Helping the staff (who have to clean up less if we reuse our towels)	1	,5	,5	89,0
I do not know	5	2,4	2,4	91,4
I do not remember	3	1,4	1,4	92,8
I don`'t remember	1	,5	,5	93,3
I don\`t know	1	,5	,5	93,8
I don\`t remember	3	1,4	1,4	95,2
i dont know	1	,5	,5	95,7
I dont know	3	1,4	1,4	97,1
Imperativ: Please help us save the environment and use less bla bla bla	1	,5	,5	97,6
neutral	1	,5	,5	98,1
Neutral	1	,5	,5	98,6
polite request	1	,5	,5	99,0
Request	1	,5	,5	99,5
uninteresting	1	,5	,5	100,0
Total	209	100,0	100,0	

Appendix 4: Respondents replies to the impact of the environmental message

Other please state

Question 5: "Can you remember how those messages made you feel"		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	-1,	4	1,9	1,9	1,9
	-2,	161	77,0	77,0	78,9
	-3,	3	1,4	1,4	80,4
	Amusement	1	,5	,5	80,9
	Appreciated for already thinking about it	1	,5	,5	81,3
	cant remember	1	,5	,5	81,8
	Concious about the importance of consuming just what i need	1	,5	,5	82,3
	Confirmation of my thoughts	1	,5	,5	82,8
	confirmed me in already taking care of the environment	1	,5	,5	83,3
	encouraged to have in mind the eco friendly behaviour	1	,5	,5	83,7
	Glad that hotels are doing their share too	1	,5	,5	84,2
	happy	1	,5	,5	84,7
	happy that the hotel is communicating about the environment	1	,5	,5	85,2
	I always do my effort, hotel or at home.	1	,5	,5	85,6
	I am environmentally aware hence it served as a reminder only	1	,5	,5	86,1
	I am usually very carefully about the environment so it was a cute reminder	1	,5	,5	86,6
	I can easily do my part.	1	,5	,5	87,1
	I couldn't take it seriously because the hotel has an financial interest in saving resources	1	,5	,5	87,6
	I did not read	1	,5	,5	88,0
	I don't remember	1	,5	,5	88,5
	I followed the instructions to use less	1	,5	,5	89,0
	I had the feeling like a motivation to do something good for our environment.	1	,5	,5	89,5
	I thought the hotel's request (to put the towel on the rack to save water) was ridiculous: In the meantime, the hotel was wasting lots of resources through constant heating, there was a lot of food been thrown away after the meals and the shower water was fucking hot which wastes a lot of energy.	1	,5	,5	90,0
	I was glad I could help by reusing my towel	1	,5	,5	90,4
	I was glad the hotel makes an attempt in order to protect the environment	1	,5	,5	90,9
	I was happy that the hotel informed their guests about this topic in order to reduce the environmental impact	1	,5	,5	91,4
	I was happy to see that they encourage people to save resources	1	,5	,5	91,9
	I would have done this anyway, so it was a good reminder	1	,5	,5	92,3
	Make me rethink about use or resources	1	,5	,5	92,8

More aware	1	,5	,5	93,3
no feelings	1	,5	,5	93,8
no new information -> no special feelings	1	,5	,5	94,3
nothing new	1	,5	,5	94,7
Nothing new...i do this at home	1	,5	,5	95,2
Nothing special	1	,5	,5	95,7
Personal Approval	1	,5	,5	96,2
Positive about following the message and being environmentally friendly	1	,5	,5	96,7
Positive impact as they reminded me how to help the environment and that the hotel was doing its bit to help the environment	1	,5	,5	97,1
Positively surprised that the hotel reminds everyone of behaving environmentally friendly	1	,5	,5	97,6
reminded me of everyone\'s share	1	,5	,5	98,1
the signs encouraged me in my behaviour	1	,5	,5	98,6
They did not make any impact on me	1	,5	,5	99,0
They made me agree to their statements	1	,5	,5	99,5
They were reasonable and I followed them	1	,5	,5	100,0
Total	209	100,0	100,0	

Appendix 5: Statistical data for the impact of pro-environmental appeals on tourists' behaviour to reuse towels

One sample statistics

Question 6	N	Mean value	Std. Deviation	Std. Error Mean
Have the environmental messages in the room had an impact on your behaviour to reuse towels?	165	2,46	1,355	,105

One sample Test

Question 6	Test value = 3,5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Have the environmental messages in the room had an impact on your behaviour to reuse towels?	-9,855	164	,000	-1,039	-1,25	-,83

Appendix 6: Statistical data for the impact of pro-environmental appeals on tourists' behaviour to use less water

One sample statistics

Question 7	N	Mean value	Std. Deviation	Std. Error Mean
Have the environmental messages in the room had an impact on your behaviour to use less water while washing and brushing your teeth?	167	2,23	1,285	,099

One sample test

Question 7	Test value = 3,5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Have the environmental messages in the room had an impact on your behaviour to use less water while washing and brushing your teeth?	-12,741	166	,000	-1,266	-1,46	-1,07

Appendix 7: Statistical data for the impact of pro-environmental appeals on tourists' behaviour to turn off the lights

One sample statistics

Question 8	N	Mean value	Std. Deviation	Std. Error Mean
Have the environmental messages in the room had an impact on your behaviour to turn off the lights?	164	2,29	1,361	,106

One sample test

Question 8	Test value = 3,5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Have the environmental messages in the room had an impact on your behaviour to turn off the lights?	-11,360	163	,000	-1,207	-1,42	-1,00

Appendix 8: Statistical data for the frequency of reading pro-environmental appeals

One sample statistics

Question 9	N	Mean value	Std. Deviation	Std. Error Mean
How often do you read environmental messages at all in the hotel room during your holiday?	164	3,08	1,311	,102

One sample test

Question 9	Test value=3,5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
How often do you read environmental messages at all in the hotel room during your holiday?	-4,111	163	,000	-,421	-,62	-,22